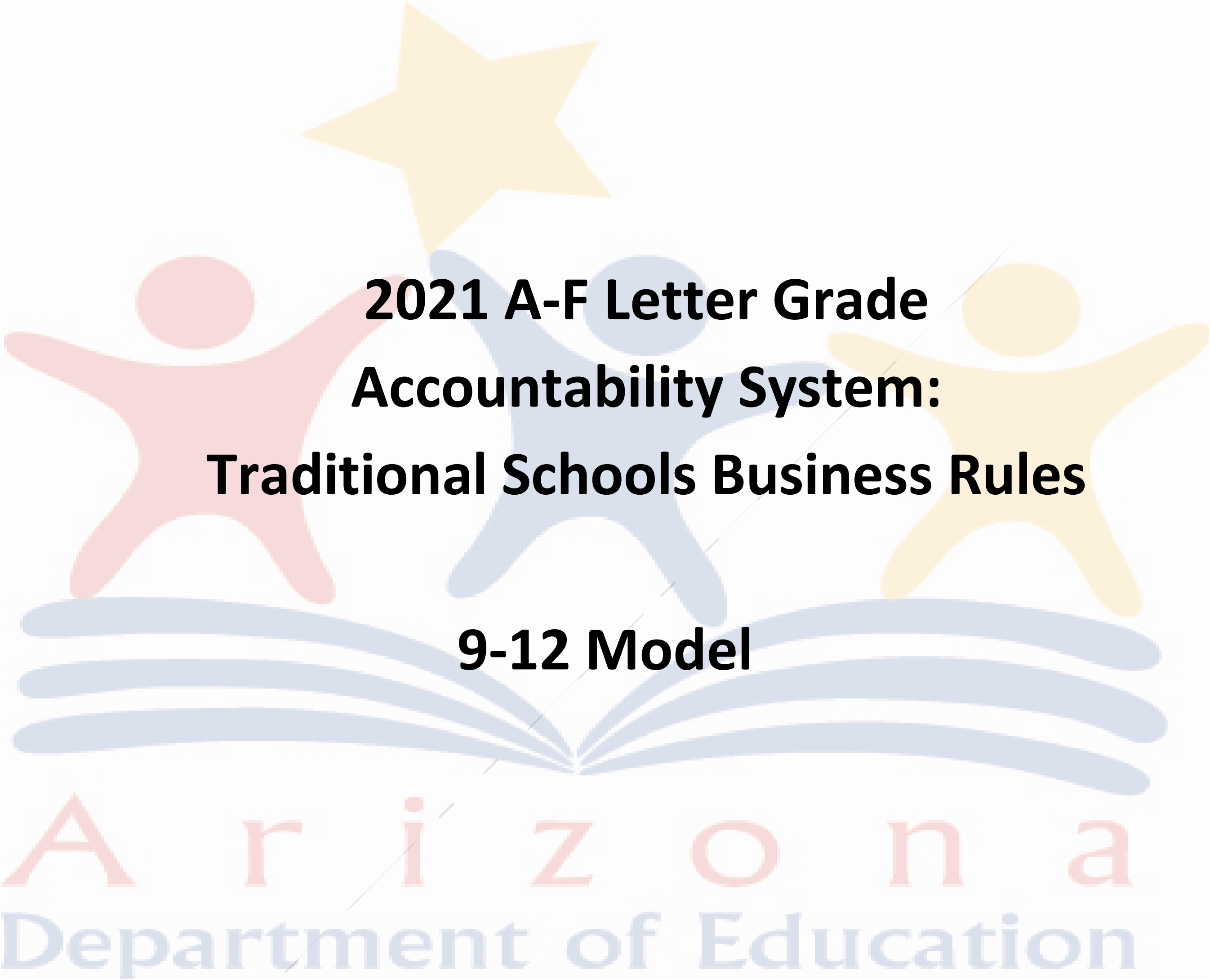

2021 A-F Letter Grade Accountability System: Traditional Schools Business Rules

9-12 Model

Last Updated June 4, 2021

Modified and Annotated Based on the Impact of COVID-19

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Legislation Based on Impact of the COVID-19 Pandemic

On February 2, 2021 Governor Doug Ducey signed into law SB2402. The law addressed testing and accountability by requiring the State Board of Education to calculate and report the A-F components, but not issue letter grades. The parts of the bill that directly affect these Business Rules are shown below:

Sec. 2. School and school district letter grades; transition process

A. Notwithstanding any other law, the department of education may not assign schools or school districts letter grade classifications pursuant to section 15-241, Arizona Revised Statutes, for school year 2020-2021.

B. Notwithstanding subsection A of this section, the department of education shall continue to collect and publish data in school year 2020-2021 concerning the academic and educational performance, indicators for schools and school districts prescribed in section 15-241, subsections C and D, Arizona Revised Statutes.

Introduction

These business rules detail Arizona's 2021 A-F Traditional 9-12 Schools Letter Grade Accountability System for educators, parents, and other stakeholders. The Arizona Department of Education's (ADE) mission is equity for all students to achieve their full potential. 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.

Using the A-F Letter Grade Accountability System, Arizona makes annual accountability determinations for schools based on student academic outcomes, subgroup improvement, graduation rate, and college and career readiness. The accountability system outlined here uses several metrics to measure student learning and growth in Arizona traditional 9-12 public schools.

Business Rules

Once the Arizona State Board of Education approves the A-F Letter Grade Models for a given fiscal year, business rules that reflect the approved model are created and shared with stakeholders on the Accountability & Research website (http://www.azed.gov/accountability-research/resources/). Following the calculation of A-F Letter Grades, corresponding release by the State Board of Education, and conclusion of the appeals process, the ADE Accountability team adds descriptive statistics and graphs at which point the business rules are finalized.

Prior to the finalization of the business rules, some changes may occur including small edits to the text (e.g., punctuation, spelling, formatting, etc.), clarifications to the description of components and the addition of details (i.e., statewide averages). A footer appears on each page that contains the date on which the business rules were most recently updated. In addition, the last page includes a date and brief description of each change that occurs.

The Accountability & Research team will continue to post the most updated document as quickly as possible for stakeholders. To ensure you are using the most up to date version, you should bookmark the applicable link from our website as opposed to saving or printing a copy.

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. Details regarding A-F and the process can be found at https://azsbe.az.gov/f-school-letter-grades. The following outlines the traditional school model that was approved on January 27, 2020.

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

1. Percentage of proficient students on the AzM2 end of course assessment and Multi-State Alternate Assessment
2. Longitudinal indicators of relative student gain and growth towards proficiency/maintenance of proficiency
3. EL proficiency and growth
4. Graduation rate
5. Indicators to measure students' readiness to succeed in a career or post-secondary enrollment.

Per A.R.S. §15-241 (b), "Each school, charter holder and school district shall submit to the department any data that is required and requested and that is necessary to compile the achievement profile. A school or local education agency that fails to submit the information that is necessary is not eligible to receive monies from the classroom site improvement fund established by section 15-977". The complete A.R.S. §15-241 is available here: https://www.azleg.gov/ars/15/00241.htm.

Data Inclusion Criteria

AzM2, MSAA, AzSCI Field Test, MSAA Science Field Test, and AZELLA data were used in the letter grade calculation after validation against the statewide Arizona Education Data Standards (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.

1-year FAY (Full Academic Year) – Students were included in the proficiency and subgroup proficiency improvement 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 week day in May (May 3, 2021). Students with breaks in enrollment fewer than 10 calendar days in the same school are still considered FAY.

AZELLA FAY – 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 state testing window for AZELLA. Students with breaks in enrollment fewer than 10 calendar days in the same school are still considered AZELLA FAY.

AOI FAY — Students that attend AOIs are FAY students if they log enough minutes at the AOI. Students in grades 9-12 must log 40,500[i] minutes at an AOI school to be considered FAY.

Current Year – refers to FY21

EL_FEP – Any student identified with an EL need in Fiscal Year 2021 in addition to any student identified as Fluent English Proficient 1, 2, 3, or 4 years ago.

English Learner (EL) – Any student identified with an EL need

- with a less than proficient score on AZELLA in the current or prior fiscal year
- students that may have been identified during the pandemic based on the Home Language Survey

English Learner Cohort – Any student identified with an EL need (e.g., with a less than proficient score on the AZELLA) any time during high school.

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.

Fluent English Proficient – Any student identified with an EL need in a prior fiscal year who has reclassified as Proficient on the AZELLA 1, 2, 3, or 4 years ago.

Homeless Cohort – Any student who was identified as Homeless during high school.

Income Eligibility 1 & 2 – Student data submitted via AzEDS in the IncomeEligibility1 and IncomeEligibility2 fields are used to define an Income Eligibility 1 & 2 student. A student is defined as Income Eligibility 1 & 2 if the school submits a 1/yes for either the IncomeEligibility1 or IncomeEligibility2 field.

Income Eligibility 1 & 2 data is lower this year due to COVID-19 impact on the ability of schools to collect and report this data. LEAs and Charter Schools continued to update their Income Eligibility 1 & 2 data throughout the year. Arizona Department of Education’s Health and Nutrition Service Division has worked with the field in supporting and feeding more students during the pandemic than in previous years under the Summer Food Service Program instead of the National School Lunch Program. However, the National School Lunch Program is only one of multiple sources LEAs and Charter Schools use to populate Income Eligibility 1 & 2 indicators.

New School – a school created in the 2020-2021 school year with a new entity ID. These schools will not receive an A-F letter score grade their first year in existence.

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 10 students.

Parent in Military – Student data submitted via AzEDS in the Parent in Military field.

Prior Year – Refers to FY20

Recently Arrived English Learner (RAEL) – A RAEL 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.

Special Education Cohort – Any student who received special education services during high school.

Special Education Student – Any student receiving special education services on October 1, 2020 as defined by Federal law. To confirm whether a student meets this criterion, schools can check their SPED07 report in the ESS Census Application. Information regarding the ESS Census process can be found here: http://www.azed.gov/specialeducation/data-management/federal-sped-census/

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

Indicator	Component	FAY	Grades	Cohort/Year (if applicable)
Proficiency	**AzM2 ELA and Math**	✓	10	
	MSAA ELA and Math	✓	11	
Growth	**Student Growth Percentiles (SGPs)**	✓	Cohort 2023 (all students in Cohort 2023 regardless of enrolled grade, typically 10th grade)	
EL	**EL Proficiency and Growth**	✓	9-12	
Graduation Rate	**4-year Graduation rate**		12	Cohort 2020
	5-year Graduation rate		12	Cohort 2019
	6-year Graduation rate		12	Cohort 2018
	7-year Graduation rate		12	Cohort 2017
College and Career Readiness	**Career and College Readiness Self-Report**		9-12	2021 Cohort that were enrolled by October 1 and continuously enrolled until May 1 or graduated early in the current or a prior fiscal year.
Bonus	**Science Proficiency**	✓	9 or 10th grade students assessed in the current school year	
	Special Education Enrollment	✓	9-12	
	Enrollment in Post-secondary/military		9-12	Cohort 2019 and Cohort 2020

Regardless of a student's special education status, the accountability system uses all verified AzM2 Statewide administration 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 Proficiency component but not in the calculation of student growth percentiles (Growth).

Students with a performance level reported from the AzM2 English Language Arts and Mathematics assessments, MSAA, and AzSCI Field Test or MSAA Science Field Test are utilized in certain calculations (detailed below). The department does not include AzM2, MSAA, AzSCI Field Test or MSAA Science Field 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 AzM2 or MSAA at all grade levels and for all subjects.

AzM2/MSAA Achievement Levels	AzSCI Field Test Achievement Levels	MSAA Science Field Test Achievement Levels
Minimally Proficient (1)	Pending	Pending
Partially Proficient (2)		
Proficient (3)		
Highly Proficient (4)		

A-F Static File

The A-F static file merges assessment data with enrollment data from AzEDS to serve as the base for the majority of A-F Letter Grade calculations and to help schools understand performance based on various accountability-related business rules (i.e. FAY). Students are included in a school's static file if they meet any of the below criteria:

- Enrolled on the first day of the Spring AzSCI Field Test Window (3/22/2021)
- Enrolled on the first day of the Spring AzM2 State Testing Window (4/05/2021)

Data in the Growth Model

Valid student assessment results must meet three 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 2020-2021 school year.
3. Student also has a test record from the 2018-2019 school year in the same subject.

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

Information will be added once determined by the Arizona State Board of Education.

Cut Scores

Cut scores will not be determined as there is no summative score for letter grades for the 2020-2021 school year.

2021 A-F Traditional School Letter Grade Models

Letter grades will not be determined this year, but the components will be calculated based on the model structure discussed below.

The Traditional Schools 9-12 A-F Letter Grade 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 serving grades 9 through 12 or any configuration within (e.g., 9-10, 10-12, 9-11, etc.) will be evaluated on the 9-12 model. Non-Typical school configurations, those that serve grades K-12, 1-12, 2-12, 6-12, etc., are graded on both the K-8 and 9-12 models. Approved Alternative Schools will be graded on the Alternative School Model. Small schools with fewer than 10 FAY students, or schools not eligible for enough of the total 100 points (50 for 9-12) will be Not Rated.

N-Size

The 9-12 Traditional School model requires schools to have 10 FAY students in each indicator to be eligible to earn the points. Exceptions to this rule are:

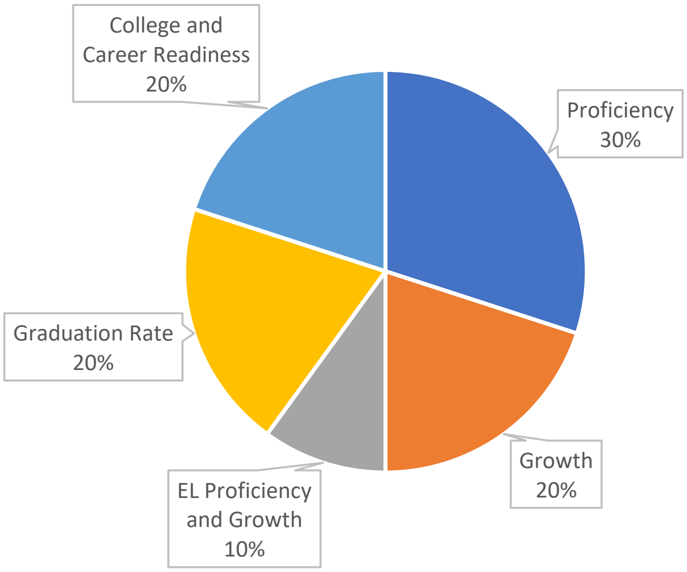
- Graduation rate – requires 10 students (FAY and non-FAY in the 4-year cohort)
- CCRI – requires 10 students in Cohort 2021
- Special Education enrollment bonus points does not require N-Size of 10
- Science Proficiency bonus points do not require N-Size of 10

Schools that do not meet the minimum N-Size of 10 FAY students cannot earn points for that indicator.

RAEL

Recently Arrived English Learner (RAEL) students in year 1 and year 2 are excluded from proficiency calculations for ELA only.

9-12 Model



Weight	Indicators
30%	Proficiency on Statewide Assessment
20%	Growth
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 do not meet the N-Size. All indicators must have a minimum of 10 FAY students to count with above exceptions. All indicators are capped at the total percent possible.

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

- 9-12
- Configurations within 9-12
  - 9-10
  - 9-11
  - 10-12
  - 10-11
  - 11-12
  - Etc.

Proficiency

Proficiency results are worth 30% of a 9-12 school's letter grade. The 2021 AzM2 or MSAA ELA and Math scores are utilized for grade 10 (11th grade for MSAA) FAY students. Schools must have a minimum of 10 FAY students to be eligible for points. If a student took the same assessment twice, the higher score is 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 (1)	0
Partially Proficient (2)	0.6
Proficient (3)	1.0
Highly Proficient (4)	1.3

Percent Tested

Proficiency calculations are impacted by percent tested. Schools that do not meet the 95% test threshold mandated by law are negatively impacted on the proficiency calculation. 95% tested is more complicated at the high school level as students may be taking the AzM2 or the MSAA assessments in grades 10 (Cohort 2023) or 11 (Cohort 2022), respectively. Thus, if a student tested on one of these assessments in school year 2021 they will count as tested. The following steps are used to determine if a student counts as tested.

Please note: The AzM2 assessment is administered to all Grade 10 students.
The MSAA assessment is administrated to all Grade 11 students with severe cognitive disabilities.

Step 1: Identify all Cohort 2023 (grade 10) students enrolled as of the first day of the AzM2 State Testing Window.

In order to ensure that students who qualify to take the MSAA in Grade 11 (not the AzM2 assessment in 2021) are removed from the 95% tested calculation for 2021 we have incorporated Step 2. These students will not be assessed in 2021 so, therefore, schools will not be penalized for these students.

Step 2: Using Fiscal Year 2019 assessment records, identify Grade 8 students who were assessed on the MSAA ELA or Math or the AIMS-A Science assessment in 2019 and remove them from denominator of the current year calculation. (These students will be tested on MSAA ELA and Math when they are in Grade 11 and will not be included in the count for 95% tested in 2021.)

Step 3: Using Fiscal Year 2018 assessment records, identify students who were assessed on the MSAA ELA or Math or the AIMS-A Science assessment when they were in Grade 8. This step identifies those students who should have taken MSAA ELA and Math in 2021. Add to these students to the denominator of the current year calculation.

Step 3 is implemented to make sure those students who were assessed on MSAA ELA and Math in 2021 (these are 11th grade students) are appropriately included in the 95% tested calculation of the current year. The schools are credited for the testing of these students.

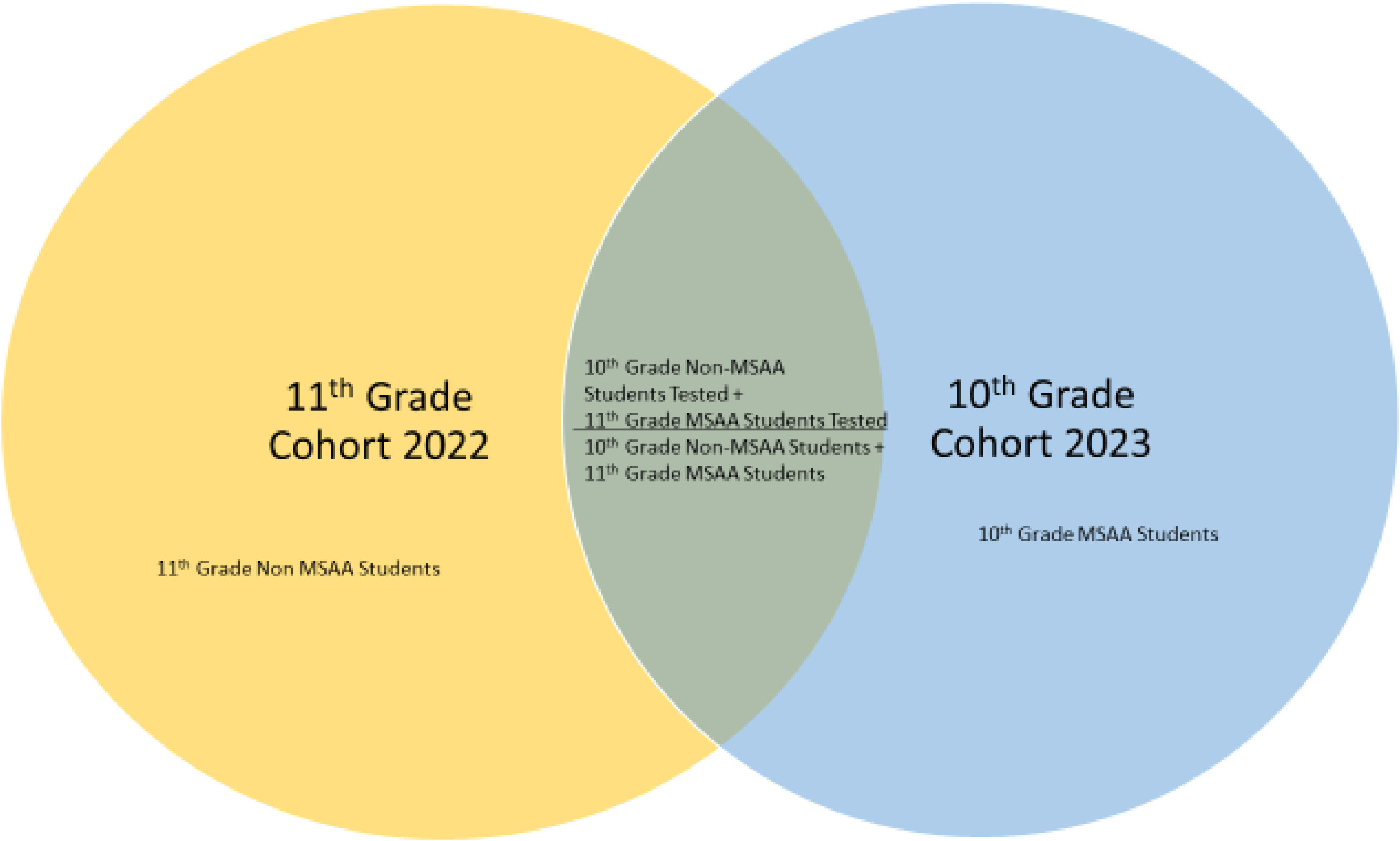
Step 4: Merge Fiscal Year 2021 ELA and Math assessment records to the list of enrolled students (Cohort 2023 students who should have taken an AzM2 and Cohort 2022 students who should have taken an MSAA).

Step 5: Determine if the student took a Math or ELA assessment.

- If a Cohort 2023 student took an AzM2 math assessment in Fiscal Year 2021 or if a Cohort 2022 student took an MSAA math assessment in fiscal year 2020 they count as tested for math.
- If a Cohort 2023 student took an AzM2 ELA assessment in Fiscal Year 2021 or if a Cohort 2022 student took an MSAA ELA assessment in Fiscal Year 2021 they count as tested for ELA

The below table and chart illustrates which students from the Cohort 2022 and 2023 are included in a school's percent tested calculation for this year.

	10th Grade Cohort of 2023	**11th Grade Cohort of 2022**	**Combination for 2020-2021 Tested**
Numerator *Number Tested*	10th grade students that were tested on ELA or Math, but did not take the MSAA test in 2019 (8th Grade)	11th Grade Students from that took an ELA or Math MSAA that also took the MSAA test in 2018 (8th Grade)	10th Grade students tested + 11th Grade MSAA students tested
Denominator *Number of Students eligible to be tested*	All 10th Grade that did not take the MSAA test in 2019 (While in 8th Grade).	All 11th Grade that took the MSAA test in 2018 (While in 8th Grade).	10th Grade Students – 10th Grade MSAA Students + 11th Grade MSAA Students


11th Grade Cohort 2022
11th Grade Non MSAA Students
10th Grade Non-MSAA Students Tested +
11th Grade MSAA Students Tested
10th Grade Non-MSAA Students +
11th Grade MSAA Students
10th Grade Cohort 2023
10th Grade MSAA Students

The below percent tested formula is used:

$$\boldsymbol{Grades\ 9-12\%\ Tested} = 100\left[\frac{\begin{gathered}0.5\,((No.\ CY\ Cohort\ 2023\ students\ tested\ on\ AzM2\ ELA + No.\ CY\,Cohort\\ 2022\ students\ tested\ on\ MSAA\ ELA) + (No.\ of\ CY\ Cohort\ 2023\ students\\ tested\ on\ AzM2\ Math + No.\ CY\ Cohort\ 2022\ students\ tested\ on\ MSAA\ Math))\end{gathered}}{(No.\ of\ Cohort\ 2023\ students + Expected\ Cohort\ 2022\ MSAA\ students)}\right]$$

In Fiscal Year 2021, the first day of the AzM2 State Testing Window is April 5, 2021.

Percent Proficient for Schools that Meet 95% Tested

$$\begin{aligned}&\%\ \boldsymbol{Proficient\ for\ Schools\ Meeting\ 95\%\ Tested}\\ &= 100\left(\frac{\begin{bmatrix}(No.\ of\ FAY\ students\ PP\ on\ ELA\ assessment + No.\ of\ FAY\ students\ PP\ Math\ assessment)0.6)\\ +(No.\ of\ FAY\ students\ P\ on\ ELA\ assessment + No.\ of\ FAY\ students\ P\ on\ Math\ assessment)1.0)\\ +(No.\ of\ FAY\ students\ HP\ on\ ELA\ assessment + No.\ of\ FAY\ students\ HP\ on\ Math\ assessment)1.3)\end{bmatrix}}{No.\ of\ FAY\ students\ tested\ on\ ELA\ assessment + No.\ of\ FAY\ students\ tested\ on\ Math\ assessment}\right)\end{aligned}$$

Schools that do not meet 95% tested will see an increase in the denominator of their proficiency calculation. The total number of students added to the denominator (and thereby included in the numerator as 0) equals the number of students needed to meet the 95% test threshold.

Example: A school was supposed to test 100 students. They tested 92. The school needed to test 95 students to meet or exceed the 95% test threshold. Because they did not meet the threshold, we do the following:

- Number of students needing to test to meet 95% – number of students actually tested

The number generated from the above subtraction is then added to the proficiency calculation denominator (see formula below).

Percent Proficient for Schools that DO NOT Meet 95% Tested

$$\begin{aligned}&\%\ \boldsymbol{Proficient\ for\ Schools\ DO\ NOT\ Meet\ 95\%\ Tested}\\ &= 100\left(\frac{\begin{bmatrix}(No.\ of\ FAY\ students\ PP\ on\ ELA\ assessment + No.\ of\ FAY\ students\ PP\ on\ Math\ assessment)0.6)\\ +(No.\ of\ FAY\ students\ P\ on\ ELA\ assessment + No.\ of\ FAY\ students\ P\ on\ Math\ assessment)1.0)\\ +(No.\ of\ FAY\ students\ HP\ on\ ELA\ assessment + No.\ of\ FAY\ students\ HP\ on\ Math\ assessment)1.3)\end{bmatrix}}{\begin{gathered}(No.\ of\ FAY\ students\ tested\ on\ ELA\ assessment + No.\ of\ FAY\ students\ tested\ on\ Math\ assessment)\\ +2(No.\ of\ Students\ needed\ to\ meet\ 95\%\ tested)\end{gathered}}\right)\end{aligned}$$

Growth

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.

Growth results are worth 20% of a 9-12 school's letter grade. Schools must have a minimum of 10 FAY students with an SGP in each subject, ELA and Math, to be eligible for growth points. Thus, SGP for ELA is capped at 10, and the SGP for Math is capped at 10 thus making growth points capped at 20.

Student Growth Percentile (SGP)

Arizona utilizes the Student Growth Percentile (SGP) model to assess students' academic growth (Betebenner, 2011). A Student Growth Percentile describes the growth of a "typical" student based on his current year test score 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" of student academic growth (Betebenner, 2011, p. 3). An SGP of 40 means that the student grew more than 40% of his/her academic peers in this time period considered. This growth model includes only academic achievement data, it does not control for student demographic information or subgroup membership. If you would like to learn more about Student Growth Percentiles, Dr. Damian Betebenner has been published several articles that can be found in research journals.

The SGP model usually assesses academic growth over one school year by employing quantile regression that links current-year scores with the scores from the immediate prior year(s), however, due to cancelations of statewide assessments in Spring of 2020, the growth for the 2020-2021 school year will be calculated from the 2018-2019 school year directly to the 2020-2021 school year, which is the academic growth over a period of two school years. This skip-year methodology has been modeled and validated through historical data, consultation with experts, and review of available literature.

In this skip-year SGP Model, a student's test records in the 2020-2021 school year will be linked to his/her test records in the 2018-2019 school year as well as his/her test records in the 2017-2018 school year. A student must have scores for the 2020-2021 school year as well as for the 2018-2019 school year to receive an SGP, but student cohorts will be built by using the historic data from the 2018-2019 school year as well as the 2017-2018 school year if available. For example, to calculate the SGP for a student in Grade 5 from the 2020-2021 school year, her test records in Grade 5 in the current year will be linked to her test records in Grade 3 from the 2018-2019 school year. And to calculate the SGP for a student in Grade 8 in the 2020-2021 school year, his test records in Grade 8 in the current year will be linked to his test records in Grade 6 from the 2018-2019 school year as well as to the ones in Grade 5 from the 2017-2018 school year. In this skip-year SGP model, Grade 5 is the first possible opportunity to assess growth for a student. Students in grades 3 and 4 will not have an SGP as they do not have test records in the 2018-2019 school year.

The department includes only the test records which can be matched to a valid student enrollment in an Arizona public school that teaches grade level standards. And the department further restricts construction of the SGP model by excluding test records for students where no answer items were selected, and no scale score is assigned.

To be specific, valid student test records 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).
2. Student has a test record from the 2020-2021 school year.
3. Student also has a test record from the 2018-2019 school in the same subject.
4. Each student's test records in the current year and in the prior year(s) should be "consecutive" with the grade in the 2019-2020 school year to be skipped.

Only FAY students contribute student growth percentile for the school's growth score calculation.

Only the SGPs of FAY students contribute to 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, 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			
2018 Achievement Level	Weights		
Highly Proficient (HP)	0	1.00	1.00
Proficient (P)	0	1.00	1.20
Partially Proficient (PP)	0	1.00	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:

$$\textbf{\textit{The SGP points of a school for each subject}} = \left(\begin{array}{c} (\%\ of\ PY\ MP\ FAY\ students\ who\ made\ high\ growth\ x2.00) \\ +(\%\ of\ PY\ PP\ FAY\ students\ who\ made\ high\ growth\ x1.80) \\ +(\%\ o\ fPY\ P\ FAY\ students\ who\ made\ high\ growth\ x\ 1.20) \\ +(\%\ of\ PY\ HP\ FAY\ who\ made\ high\ growth\ x\ 1.00) \\ +(\%\ of\ PY\ (MP + PP + P + HP)\ who\ made\ average\ growth) \end{array} \right)$$

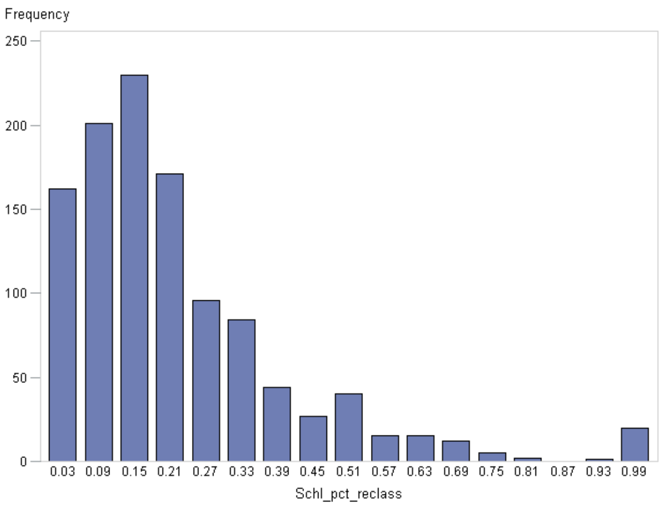
Normalizing (Transforming) EL Data

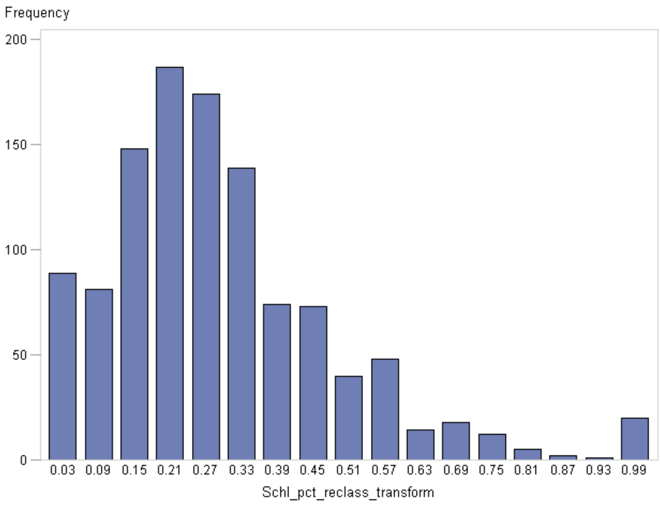
While ideally all data would be normally distributed, most data is not. Normally distributed data means when visualized through a histogram that data is bell-curve shaped. Further, the mean (average) and median (the midpoint of the data) of the data are approximately the same. When data does not have a normal distribution, this is called a non-normal distribution. When data has a non-normal distribution, data can be “transformed” to have a normal distribution. Below is an example of non-normally distributed data and the same data that has been transformed to have a normal distribution.

Data transformation means applying the same mathematical operation to each piece of the original data. The transformation process changes every school and student in the same way. A variety of statistical methods are used for normalizing data based upon which approach provides a distribution as close as possible to normal.

Once transformed, the relationship between data points does not change, but the relationship across data points does. Transformation modifies all the data, in the same way, to normalize the distribution as much as possible. Individual school or student performance is not damaged or improved during the transformation process.

Data is normalized for two reasons. First, most statistical methods used to analyze data include an assumption of a normal distribution. For potential analysis to be as accurate as possible, data needs to have as close as possible to a normal distribution. Second, letter grade scores are a combination of several indicators. For the combined letter grade to be as accurate as possible, all data included in the grade calculation needs to approximately have a normal distribution.





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 10 AZELLA FAY students to be eligible for the points. EL proficiency is worth 5% and EL growth is worth 5%.

EL calculations include students in grades 9-12 with an EL need (e.g., with a less than proficient score on AZELLA in the current or prior fiscal year), including recent arrivals. EL calculations also include students who reassess as proficient outside of the Spring AZELLA testing window in addition to those that do so during the testing window. EL students must also be AZELLA FAY. To be included in the EL growth calculations, two test records are required. Invalid test records count as not tested. Schools with less than 10 AZELLA FAY EL students are not eligible for these points. EL proficiency calculates the proficiency percentage of EL students. The following formula is used.

$$\boldsymbol{EL\ School\ Proficiency}\ \% = 100\left[\frac{(No. of\ AZELLA\ FAY\ students\ proficient\ on\ AZELLA)}{\begin{array}{c}(No. of\ AZELLA\ FAY\ students\ with\ an\ EL\ need, including\ parent\ withdrawals,\\ who\ had\ a\ valid\ current\ AZELLA\ proficiency\ level)\end{array}}\right]$$

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

$$\boldsymbol{EL\ 9-12\ Statewide\ CY\ \ Proficiency}\ \% = 100\left[\frac{(Sum\ of\ School\ Averages\ that\ have\ the\ necessary\ AZELLA\ FAY\ n-count)}{(No.of\ Schools\ that\ have\ the\ necessary\ AZELLA\ FAY\ n-count\ to\ be\ eligible\ for\ points)}\right]$$

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

STANDARDIZED	Range	Points
EL Proficiency is greater than or equal to the EL statewide mean current year percent proficient.	TBD	5
EL Proficiency is 0.01 to 0.50 standard deviations below the EL statewide mean current year percent proficient.	TBD	4
EL Proficiency is 0.51 to 1.00 standard deviations below the EL statewide mean current year percent proficient.	TBD	3
EL Proficiency is 1.01 to 2.00 standard deviations below the EL statewide mean current year percent proficient.	TBD	2
EL Proficiency is 2.01 to 3.00 standard deviations below the EL statewide mean current year percent proficient.	TBD	1
If a school's EL Proficiency is 0%, due to no reclassification.	TBD	0

EL growth calculates the growth percentage of EL students using their current year compared to prior year AZELLA results. In addition, any student who takes a placement exam for the first time by October 1st and then takes a spring reassessment will be included. Students who had a placement exam in one school and a reassessment in another school within the same school year will not be included as they will not qualify as AZELLA FAY.

The table below shows how many points each level of growth is worth.

Prior Year Achievement Level	**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:

$$\boldsymbol{EL\ School\ Growth}\ \% = 100\left[\frac{\begin{pmatrix}(No.of\ AZELLA\ FAY\ students\ who\ increased\ one\ proficiency\ level)\\ +(No.of\ AZELLA\ FAY\ student\ who\ increased\ two\ proficiency\ levels\ x\ 2.0)\\ +(No.of\ AZELLA\ FAY\ students\ who\ increased\ three\ proficiency\ levels\ X\ 3.0)\end{pmatrix}}{\begin{matrix}No.of\ AZELLA\ FAY\ students\ tested\ with\ an\ EL\ need, including\ parent\\ withdrawals\ with\ a\ valid\ current\ and\ prior\ year\ AZELLA\ proficiency\ level\end{matrix}}\right]$$

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

$$\boldsymbol{EL\ 9-12\ Statewide\ Current\ Year\ Growth\ Percent} = 100\left[\frac{(Sum\ of\ EL\ Growth\ of\ all\ schools\ AZELLA\ FAY\ n-count\ to\ be\ eligible\ for\ points)}{No.of\ schools\ that\ have\ the\ necessary\ AZELLA\ FAY\ n-count\ to\ be\ eligible\ for\ points}\right]$$

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

STANDARDIZED	Range	Points
EL Growth is greater than or equal to the EL statewide mean current year percent growth.	TBD	5
EL Growth is 0.01 to 0.50 standard deviations below the EL statewide mean current year percent growth.	TBD	4
EL Growth is 0.51 to 1.00 standard deviations below the EL statewide mean current year percent growth.	TBD	3
EL Growth is 1.01 to 2.00 standard deviations below the EL statewide mean current year percent growth.	TBD	2
EL Growth is 2.01 to 3.00 standard deviations below the EL statewide mean current year percent growth.	TBD	1
If a school's EL Growth is 0%, due to no growth.	TBD	0

Graduation Rate

The graduation (Grad) rate indicator is worth 20% of a 9-12 school's letter grade. Schools must have a minimum of 10 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. Schools that are only eligible for one portion of the Graduation Rate component can earn points out of 10 for the portion for which they are eligible.

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	2020	5.0%
5-year	2019	4.0%
6-year	2018	2.5%
7-year	2017	0.5%

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

$$\boldsymbol{4, 5, 6, and\ 7 - year\ Grad\ Rate\ Points} = \left(0.05(Cohort\ 2019\ 4{-}year\ Grad\ rate)\right) + (0.04(Cohort\ 2018\ 5\text{-}year\ Grad\ rate)) + (0.025(Cohort\ 2017\ 6\text{-}year\ Grad\ rate)) + (0.005(Cohort\ 2016\ 7\text{-}year\ Grad\ rate))$$

Graduation 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.

Improvement Rate Points = (Current Year 4-year graduation rate - Prior Year 4-year graduation rate)

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

- A school’s Cohort 2020 4-year graduation rate is greater than or equal to 90% = 10 points
- The difference between a school’s Cohort 2020 4-year graduation rate and Cohort 2019 4-year graduation rate is greater than 2 points = 10 points
- The difference between a school’s Cohort 2020 4-year graduation rate and Cohort 2019 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 2020 4-year graduation rate and Cohort 2019 4-year graduation rate is less than -2 points = 0 points

Graduation Rate Points = 4-, 5-, 6-, and 7-year Rate Points (if eligible) + Improvement Rate Points (if eligible)

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 10 students in the Cohort of 2021 to be eligible for these points. These students should have been enrolled by October 1 and stayed continuously enrolled until May 3, 2021. Cohort 2021 students who graduated either during Fiscal Year 2021 or a prior fiscal year would also be included. Schools can download the student level spreadsheet to assist with the calculations outlined below. Schools should look over each student’s entire 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 on the A-F Self-Reporting Data by July 30, 2021. This indicator is capped at 23.

Scoring:

- A student who accumulates at least 1 indicator point will generate 10 CCR points
- A student who accumulates at least 2 indicator points will generate 20 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 22 CCR points
- Schools that increase their prior year post-secondary and military enrollment percentage or have 85% post-secondary and military enrollment earn one bonus point

COLLEGE AND CAREER READINESS RUBRIC CREDENTIALS – See Appendix for full list

Value	Indicators
1.25 Blue	Earns a Grand Canyon Diploma or International Baccalaureate Diploma
1.25 Red	Completes a CTE sequence and passes the Arizona Technical Skills Assessment for that sequence
.5 per exam Blue	Passing score on AzM2 Algebra 2 or ELA 11
.35 per exam Blue	Meets cut score on ACT English, math, reading or science exam
.5 per exam Blue	Meets cut score on SAT English or math exam
.5 per exam Blue	Meets cut score on any AP exam
.5 Red or Blue	Completes the FAFSA
.5 per course Red	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 Blue	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 Red	Completes a CTE course with an A, B, or C (outside of completed sequence referenced above) –
.5 Red	Meets benchmarks for ASVAB
.5 Red	Meets benchmarks for ACT WorkKeys
.35 per exam Blue	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 Blue	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 Red	Earns an Industry-Recognized Credential, Certificate, or License **No more than one point may be awarded in this indicator.**
1 Red	Completes well-defined Work-Based Learning (i.e. internship) of at least 120 hours
1 Blue	Meets all 16 Arizona Board of Regents program of study requirements – an A, B, or C is earned in the 16 core courses

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

2020-2021 Special Narrative on Self-Reported Data

The challenges of the COVID-19 pandemic continued throughout the 2020-2021 school year. The 2500 character Special Narrative Section is open for a school to provide information again this year. Last year's narratives provided important information on the impact on the self-reported components. It is still valuable to collect the input from the school regarding the challenges, roadblocks, attempts or efforts made to gather student information and its effect on the score the school received for those who chose to share.

Bonus Points

Schools can earn bonus points three ways. The bonus points are added after the total score is calculated.

College and Career Readiness

Schools that increase their prior year post-secondary and military enrollment percentage or have 85% enrollment earn one bonus point which is calculated and self-reported by the school as part of their CCRI data submission.

Special Education Enrollment

Schools with high populations of FAY students enrolled in special education will earn bonus points. Bonus points were awarded based on the distance from the school's percentage to the statewide average.

The following formulas are used for the calculations:

$$\textbf{\textit{School Level CY FAY SPED Program Enrollment}}\ \% = 100\left[\frac{(No.\,of\ CY\ FAY\ students\ who\ are\ enrolled\ in\ a\ SPED\ program)}{(Total\ CY\ FAY\ enrollment\ )}\right]$$

$$\textbf{\textit{Statewide CY FAY SPED Program Enrollment}}\ \% = 100\left[\frac{(No.\,of\ CY\ FAY\ students\ who\ are\ enrolled\ in\ a\ SPED\ program)}{(Total\ CY\ FAY\ enrollment\ )}\right]$$

FAY Special Education Program Enrollment Bonus Points (0, 1, 1.5, or 2 points)

Points are awarded based on the following:

Bonus Points	Range
2	At or above 80% of the statewide average (TBD)
1.5	At 70% to 79% of the statewide average (TBD)
1	At 60% to 69% of the statewide average (TBD)
0	Below 60% of the statewide average (TBD)

Science Proficiency

Schools can earn up to 3 bonus points on science achievement of FAY students.

The following details how points are earned.

Science Proficiency Bonus Points (0, 1.5 or 3 points)

- A school's current year percent tested is greater than or equal to 95% = 3 points
- A school's current year percent tested is greater than or equal to 90% and less than 95% = 1.5 points

Calculating Total Points

COVID-19 Notification:

On February 2, 2021 Governor Doug Ducey signed into law SB2402. The law addressed testing and accountability for the current school year. Therefore, there will be no calculation for total points or letter grades.

Appendix

List of Acronyms and Abbreviations

Acronym/Abbreviation	Meaning
ADM	Annual Daily Membership
AOI	Arizona Online Instruction
AVG	Average
AzEDS	Arizona Education System
AZELLA	Arizona English Language Learner Assessment
AzM2	Arizona’s Measurement of Educational to Inform Teaching
AzSCI	Arizona Science Field Test
CCRI	College and Career Readiness Index
CY	Current Year
EL	English Language
ELA	English Language Arts
EOC	End of Course
FAY	Full Academic Year
FEP	Fluent English Proficient
FY	Fiscal Year
HP	Highly Performing on AzM2
MP	Minimally Performing on AzM2
MSAA	Multi-State Alternate Assessment
MSAA Science	Multi-State Alternate Assessment Science Field Test
No.	Number
P	Proficient Performing on AzM2
PP	Partially Performing on AzM2
PY	Previous Year
RAEL	Recently Arrived English Learner
SG	Subgroup
SPED	Special Education

Career and Technical List of Qualifying Programs

FY 2021 A-F CCRI Credentials for CTE Programs

Credential Name

- Adobe Certified Associate (ACA)
- Amatrol
- American Welding Society Certification (AWS)
- APCO International- Public Safety Telecommunication Dispatcher
- Apple Certified Pro (ACP) - Final Cut Pro
- Approved Veterinary Assistant (AVA)
- Arizona Aesthetician License
- Arizona Agriculture Skills & Competencies Certificate
- Arizona Center for Fire Service Excellence-Fire Fighter I and II
- Arizona Cosmetology License
- Arizona Department of Public Safety- Security Guard Certification
- Arizona Landscape Contractor Association (ALCA)
- ASE Student Certifications-G1, A1-A8, AST
- ASE Student Certifications-Medium/Heavy Diesel (T2-T6)
- ASE/ICar Student Certifications-Paint and Refinishing, Non-Structural Repair, Mechanical and Electrical
- Autodesk AutoCAD Certified User
- Autodesk Certified User - 3ds Max; Maya
- Beginning Jewelry Sales
- Biotechnician Assistant Credential (BACE)
- CAD-CAM
- Certified Cardiographic Tech (CCT)
- Certified Front Desk Representative
- Certified Fundamentals Cook (CFC) and Pastry Cook (CFPC)
- Certified Guest Service Professional (CGSP)
- Certified Healthcare Documentation Specialist Transcriptionist (CHDS)
- Certified Hospitality and Tourism Management Professional
- Certified Internet Web (CIW) - JavaScript Specialist
- Certified Nurse Assistant (CNA)
- Certified Personal Trainer (CPT)
- Certified Pharmacy Technician (CPhT)
- Certified Phlebotomy Technician
- Certified Physical Therapy Aide (CPTA)
- Certified Restaurant Server
- Chief Architect Certified User
- Child Development Associate Credential
- Clinical Medical Assistant (CCMA)
- CompTIA A+
- CompTIA IT Fundamentals
- CompTIA Network+
- CompTIA Security +
- CSX Cybersecurity Fundamentals Certificate
- Emergency Medical Responder (EMR)
- Emergency Medical Technician (EMT)
- FAA Airframe Mechanic
- FAA Ground Instruction; Instrument; Control Tower and Remote Pilot
- FAA Powerplant Mechanic
- FCC License
- Licensed Massage Therapist (LMT)
- Licensed Nurse Assistant (LNA)
- Manufacturing Skill Standards Council (MSSC)
- Master CAM
- Mechatronics
- Microsoft Office Specialist (MOS) credential
- Microsoft Technology Associate (MTA)
- NAFTrack Certification
- National Institute for Metalworking Skills (NIMS)
- National ProStart Certificate of Achievement (COA)
- NCCER Cabinetmaking
- NCCER Carpentry
- NCCER Construction Technologies
- NCCER Core
- NCCER Heavy Equipment Operator
- NCCER HVAC
- NCCER Welding
- Oracle Java certification-fundamentals
- OSHA 10
- Praxis Para Pro Certificate
- PrintED/SkillsUSA Student Certification
- Programmer I -JAVA basics
- QuickBooks Certified User (QBCU)
- Radiation Health and Safety (RHS)(by Dental Assisting National Board)
- Registered Clinical Medical Assistant Specialist (RCMAS)
- Registered Medical Assistant (RMA)
- ServSafe Food Protection Manager
- SolidWorks - Certified Solidworks Associate (CSWA), Certified Solidworks Professional (CSWP)
- Wildland Firefighter

Change Log

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[i] Updated amount of minutes an AOI student must log in order to be considered a FAY student.