# 2019 A-F Letter Grade Accountability System: Traditional Schools Business Rules 

9-12 Model

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## Introduction

These business rules detail Arizona's 2019 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 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.

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.

## 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 April 15, 2019.

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

1. Percentage of proficient students on the AzMERIT end of course assessment, Multi-State Alternate Assessment, or Menu assessment
2. Improvement amongst subgroups in proficiency, graduation rate and dropout rate
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

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 (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 1, 2019). Students with breaks in enrollment fewer than 10 calendar days in the same school are still considered FAY. ${ }^{\text {ii }}$

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. iii

## Current Year - refers to FY19

EL FEP - Any student identified with an EL need in Fiscal Year 2019 in addition to any student identified as Fluent English Proficient 1, 2, 3, or 4 years ago. ${ }^{\text {iv }}$

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

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. ${ }^{\text {V }}$

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. vi

Homeless Cohort - any student who was identified as Homeless during high school. vii

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

New School - a school created in the 2018-2019 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. Performance is reported for current year subgroup calculations; no points will be awarded for this subgroup.

## Prior Year - refers to FY18

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. ${ }^{\text {viii }}$

Special Education Student - Any student receiving special education services on October 1, 2018 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 <br> (if applicable) |
| :---: | :---: | :---: | :---: | :---: |
| Proficiency | AzMERIT ELA and Math | $\checkmark$ | EOC |  |
|  | MSAA ELA and Math | $\checkmark$ | EOC |  |
|  | Approved Menu of Assessment Exam | $\checkmark$ |  | Cohort 2020 |
| Subgroup Improvement | Subgroup Proficiency Improvement | $\checkmark$ | $\begin{aligned} & \text { EOC/ } \\ & \text { Menu } \end{aligned}$ |  |
|  | Subgroup Graduation Rate Improvement |  |  | Cohort 2017 and Cohort 2018 |
|  | Subgroup Dropout Rate Improvement |  | 9-12 | Fiscal Year 2018 and Fiscal Year 2019 |
| EL | EL Proficiency and Growth | $\checkmark$ | ALL |  |
| Graduation Rate | 4-year Graduation rate |  | 12 | Cohort 2018 |
|  | 5-year Graduation rate |  | 12 | Cohort 2017 |
|  | 6-year Graduation rate |  | 12 | Cohort 2016 |
|  | 7-year Graduation rate |  | 12 | Cohort 2015 |
| College and Career <br> Readiness | Career and College Readiness SelfReport |  | 9-12 | 2019 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 | AIMS Science, AIMS-A Science, and ACT Science | $\checkmark$ |  |  |
|  | Special Education Enrollment | $\checkmark$ | 9-12 |  |
|  | Cohort 2017 and 2018 for bonus |  | 9-12 |  |

Regardless of a student's special education status, the accountability system uses all verified AzMERIT and Menu of Assessments 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.

Students with a performance level reported from the AzMERIT English Language Arts and Mathematics assessments, MSAA, Menu of Assessments Statewide administration, and AIMS or AIMS A Science are utilized in certain calculations (detailed below). The department does not include AzMERIT, MSAA, Menu of Assessments, 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, MSAA, Menu of Assessments, AIMS, and AIMS A at all grade levels and for all subjects.

| AzMERIT/MSAA <br> Achievement Levels | AIMS/AIMS A Science <br> Achievement Levels | Approved Menu of Assessments <br> Exam |
| :---: | :---: | :---: |
| Minimally Proficient | Falls Far Below | Level 1 |
| Partially Proficient | Approaches | Level 2 |
| Proficient | Meets | Level 3 |
| Highly Proficient | Exceeds | Level 4 |

## A-F Static File ${ }^{\text {ix }}$

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 Fall AzMERIT State Testing Window (11/5/2018)
- Enrolled on the first day of the Spring Menu of Assessments State Testing Window (3/4/2019)
- Enrolled on the first day of the Spring AIMS Science State Testing Window (3/25/2019)
- Enrolled on the first day of the Spring AzMERIT State Testing Window (4/1/2019)


## Timeline \& Appeals

The following is the timeline for Fiscal Year 2019 A-F school letter grades:

- October 31, 2019: A-F Letter Grades were published on the State Board of Education's website: https://azsbe.az.gov/f-school-letter-grades.
- November 1 - November 15, 2019: Appeals window was open. The Appeals Policy and Procedures can be found on the State Board of Education's website:
https://azsbe.az.gov/sites/default/files/media/A-
F\%20Appeals\%20Policies\%20and\%20Procedures\%20-
\%20FINAL\%20with\%20Appeal\%20Form\%20Reference.pdf.
- November 18, 2019: Schools that filed an appeal were be labeled as "UR" "Under Review". Schools that were subject to 3 consecutive D Statute were be labeled as an F unless an appeal was filed.
- December 9 - December 11, 2019: State Board of Education's A-F Appeals Committee meet and made recommendations.
- December 13, 2019: State Board of Education approved, rejected or modified the A-F Letter Grade Appeals decisions recommended by the A-F Appeals Committee. An updated A-F Letter Grade file was be posted on the State Board's website: https://azsbe.az.gov/f-school-lettergrades.


## 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) Incorrect Data. Please note: review the Policies and Procedures regarding appeals citing incorrect data on the State Board's website: https://azsbe.az.gov/sites/default/files/media/A-F\ Appeals\ Policies\ and\ Procedures\ \ FINAL\ with\ Appeal\ Form\ Reference.pdf

Schools could request 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 who evaluated each qualified appeal and submitted a recommendation to the full Board based on the appeals rubric. A school's letter grade was not be published during the appeal, a note indicating that the awarded letter grade was under review was included. For appeals that were approved by the State Board, the Committee's recommendation was used in the final letter grade. For appeals that were denied, the original finalized data determined the school's letter grade.

## Cut Scores

- 9-12 Letter Grade model is used for schools that serve grades 9 through 12 (or any configuration within that such as 10-12, 9-11, etc.). 9-12 schools eligible for 50 or more of the 100 total points available will receive a 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. Percentage Earned = Total Points Earned (excluding bonus points) / Total Points Eligible.

| A | B | C | D | F |
| :---: | :---: | :---: | :---: | :---: |
| $100-83.83 \%$ | $83.82-70.02 \%$ | $70.01-56.21 \%$ | $56.20-42.40 \%$ | $42.39-0 \%$ |

Pursuant to A.R.S. § 15-241.02(D), schools that receive three consecutive D's "shall be assigned a letter grade of $F$ unless an alternate letter grade is assigned after an appeal...". Schools receiving a third "D" letter grade were assigned a "D" in the initial release of A-F Letter Grades. If the school did not file an appeal of their grade, it was be changed to an F following the close of the A-F Letter Grade Appeal window. ${ }^{\mathrm{x}}$

## 9-12 model:



## 2019 A-F Traditional School Letter Grade Models

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 $\mathrm{K}-12,1-12$, 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, fewer than 10 FAY students, Arizona Online Instruction (AOI) schools, 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:

- Subgroup Improvement Graduation Rates require N-size of 10 and include both FAY and non-FAY in the 4-year cohort for cohort 2017 and 2018
- Subgroup Improvement Dropout Rates require N -size of 10 and include both FAY and nonFAY in fiscal year 2018 and 2019
- Graduation rate - requires 10 students (FAY and non-FAY in the 4-year cohort)
- CCRI - requires 10 students in cohort 2019
- 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 $2^{\text {xi }}$ are excluded from proficiency calculations for ELA only.

## 9-12 Model

| Weight | Indicators |
| :--- | :--- |
| $\mathbf{3 0 \%}$ | Proficiency on Statewide Assessment |
| $\mathbf{2 0 \%}$ | Subgroup Improvement on Statewide Assessment (10\%), <br> Subgroup Graduation Rate (5\%), and <br> Subgroup Dropout Rate (5\%) |
| $\mathbf{1 0 \%}$ | Proficiency and Growth - English Language Learners |
| $\mathbf{2 0 \%}$ | Graduation Rate |
| $\mathbf{2 0 \%}$ | 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 2019 AzMERIT, MSAA, or Menu of Assessments State Administration ELA and Math scores are utilized for grades 9-12 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. 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/Performance Level 1 | 0 |
| Partially Proficient/ Approaches/Performance Level 2 | 0.6 |
| Proficient/Meets/Performance Level 3 | 1.0 |
| Highly Proficient/Exceeds/Performance Level 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 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. The following steps are used this year to determine if a student counts as tested.

Step 1: Pull all Cohort 2020 students enrolled as of the first day of the AzMERIT State Testing Window.
Step 2: Pull assessment data for FY16, FY17, FY18, and FY19.
Step 3: Merge the assessment data results to the list of Cohort 2020 students.
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), or Menu of Assessments state administration exam over the last four years of 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), or Menu of assessments state administration exam over the last four years of data then the student counts as tested in ELA.

The below formula is used:

$$
\begin{aligned}
& \text { Grades } 9-12 \% \text { Tested } \\
& =100\left[\begin{array}{c}
0.5((\text { No. CY Cohort } 2020 \text { students tested at least once in ELA in FY16, FY17, FY18, or FY19) } \\
+(\text { No.of CY Cohort } 2020 \text { students tested at least once in math in FY16,FY17,FY18, or FY19)) } \\
(\text { No.of Cohort } 2020 \text { students enrolled as of the first day of the AzMERIT State Testing Window) })
\end{array}\right]
\end{aligned}
$$

In the above calculation, a student who has taken the ACT or SAT as a Menu of Assessments exam, would count as "tested" in both ELA and Math if they had a valid result. If the school does not have Cohort 2020 students then the calculation will use the Cohort 2021 students.

In Fiscal Year 2019, the first day of the AzMERIT State Testing Window was April 1, 2019.

## Percent Proficient for Schools that Meet 95\% Tested

$$
\begin{aligned}
& \text { \% Proficient for Schools Meeting 95\% Tested }
\end{aligned}
$$

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

Statistics and Graphs for Proficiency and 95\% Tested
For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 401-41)

Summary Tables

|  | PercentTested | PercentProficientAllStudents | proficiency |
| :--- | ---: | ---: | ---: |
| Max | 1.00 | 120.66 | 30.00 |
| Mean | 0.95 | 55.14 | 16.31 |
| Min | 0.00 | 7.62 | 2.29 |
| Range | 1.00 | 113.04 | 27.71 |
| StdDev | 0.11 | 24.41 | 6.80 |
| StdErr | 0.01 | 1.37 | 0.38 |
| Var | 0.01 | 596.02 | 46.23 |
| Median | 0.97 | 51.84 | 15.55 |
| Q1 | 0.95 | 37.32 | 11.20 |
| Q3 | 1.00 | 69.94 | 20.98 |
| P1 | 0.25 | 12.00 | 3.60 |
| P5 | 0.84 | 21.26 | 6.38 |
| P10 | 0.91 | 27.57 | 8.27 |
| P90 | 1.00 | 88.90 | 26.67 |
| P95 | 1.00 | 108.30 | 30.00 |
| P99 | 1.00 | 116.53 | 30.00 |

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Percent Tested


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## Percent Proficient All Students



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## Proficiency Points Earned



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## Subgroup Improvement

The intent of this metric is to see annual growth in subgroups' proficiency in ELA and Mathematics assessments and graduation rates and see annual decreases in subgroups' dropout rates. The following subgroups are evaluated for proficiency in ELA and Math assessments, graduation rates, and dropout rates:

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/Fluent English Proficient (Students with an EL Need plus students who are Fluent English Proficient 1, 2, 3, or 4; Students who are RALEP = 1 are removed) ${ }^{\text {xii }}$
9. Special Education
10. Economically Disadvantaged
11. Parent in Military (reported for Fiscal Year 2019 only, no points available)
12. Homeless (reported for Fiscal Year 2019 only, no points available) ${ }^{\text {xii }}$

Subgroup Improvement is worth $20 \%$ of a 9-12 school's letter grade. The subgroup proficiency component is
worth $10 \%$, subgroup graduation rate is worth $5 \%$, and subgroup dropout rate is worth $5 \%$.

To calculate the total points for Subgroup Improvement for each school, the points for the components for which a school is eligible (meets n-count) are added together. This point total is then divided by the maximum points possible for each component for which the school is eligible.

If a school were eligible for all components:

> 9 - 12 Subgroup Improvement Points (Eligible for all components of Subgroup Growth) $=\left[\begin{array}{c}\text { (No.of Subgroup Prof iciency Improvement Points Earned + No.of Subgroup Graduation } \\ \frac{\text { Improvement Points Earned + No.of Subgroup Dropout Improvement Points Earned) }}{\binom{\text { Subgroup Proficiency Improvement Points Available + Subgroup Graduation Improvement }}{\text { Points Available }+ \text { Subgroup Dropout Improvement Points Available }}}\end{array}\right]$

If a school were eligible for the Assessment and Graduation components only:
9-12 Subgroup Improvement Points (Eligible for Subgroup Proficiency and Subgroup Graduation Only)

$$
=\left[\begin{array}{c}
\begin{array}{c}
\text { No.of Subgroup Proficiency Improvement Points Earned } \\
+ \text { No.of Subgroup Graduation Improvement Points Earned })
\end{array} \\
\binom{\text { Subgroup Proficiency Improvement Points Available }}{+ \text { Subgroup Graduation Improvement Points Available }}
\end{array}\right]
$$

If a school were eligible for the Proficiency component only:

> 9-12 Subgroup Improvement Points (Eligible for Subgroup Proficiency Only) $$
=\left[\frac{\text { No.of Subgroup Proficiency Improvement Points Earned }}{\text { (Subgroup Proficiency Improvement Points Available) }}\right]
$$

Additional combinations of eligible components could occur.

## Subgroup Proficiency Improvement

To be eligible, each subgroup must have at least 10 FAY students at the school level. The n-count must be met in both the current year and previous year. If a school meets the $n$-count for all subgroups, the school would need to show improvement or maintain the same proficiency percentage from prior year for each subgroups' ELA and Math respectively in order to earn full points (10) in Subgroup Proficiency. Students marked RALEP 1 and 2 are removed from the ELA calculations. ${ }^{\text {xiv }}$

The subgroup proficiency percentage for a subject is calculated for the prior year and current year and then compared to determine if the subgroup improved or maintained a proficiency percentage greater than 0 , from prior year.

$$
\begin{aligned}
& \text { Subgroup CY Proficiency \% } \\
& =100\left[\begin{array}{c}
((\text { No. of CY FAY students in the Subgroup that are PP on AzMERIT or MSAA)0.6) } \\
+((\text { No of CY FAY students in the Subgroup that are P on AzMERIT or MSAA)1.0) } \\
+((\text { No. of CY FAY students in the Subgroup that are HP on AzMERIT or MSAA)1.3) } \\
\text { (Total CY FAY students in the Subgroup who took the test })
\end{array}\right]
\end{aligned}
$$

$$
\begin{aligned}
& \text { Subgroup PY Proficiency \% } \\
& =100\left[\begin{array}{c}
((N o . \text { of PY FAY students in the Subgroup that are PP on AzMERIT or MSAA)0.6) } \\
+((\text { No of PY FAY students in the Subgroup that are P on AzMERIT or MSAA)1.0) } \\
+((\text { No. of PY FAY students in the Subgroup that are HP on AzMERIT or MSAA)1.3) } \\
\text { (Total PY FAY students in the Subgroup who took the test })
\end{array}\right]
\end{aligned}
$$

$$
\text { Subgroup Proficiency Improvement }=(\text { Subgroup CY Proficiency \% - Subgroup PY Proficiency \%) }
$$

Subgroup Proficiency evaluates each subgroup and subject separately. The number of subgroups and subjects for which a school is eligible is the denominator. The number of subgroups and subjects a school is eligible for that show improvement over the prior year or maintain their prior year, is the numerator, see formula below.

$$
\text { 9-12 Subgroup Improvement Points }=10\left[\begin{array}{c}
\left(\begin{array}{c}
\text { No. of CY eligible subgroups and subjects on which the school } \\
\text { showed improvement or maintained from } P Y)
\end{array}\right. \\
(\text { No.of CY eligible subgroups and subjects at the school) }
\end{array}\right]
$$

## Subgroup Graduation Rate Improvement

To be eligible, each subgroup must have at least 10 students at the school level. The $n$-count must be met in both the current year and previous year. If a school meets the $n$-count for all subgroups, the school would need to show improvement or maintain a $90 \%$ or higher 4-year graduation rate for every subgroup in order to earn full points.

Subgroup Graduation Improvement $=($ Subgroup CY Graduation Rate - Subgroup PY Graduation Rate $)$

$$
\begin{aligned}
& 9-12 \text { Subgroup Graduation Improvement Points } \\
& =5\left[\begin{array}{l}
\text { (No.of CY eligible subgroups on which the school improved } \\
\text { from PY or maintained a } 90 \% \text { or higher graduation rate) } \\
(\text { No.of CY eligible subgroups at the school })
\end{array}\right]
\end{aligned}
$$

## Subgroup Dropout Rate Improvement

To be eligible, each subgroup must have at least 10 students at the school level. The $n$-count must be met in both the current year and previous year. If a school meets the n-count for all subgroups, the school would need to show improvement from the previous year's dropout rate or maintain a dropout rate of $0 \%$ for every subgroup in order to earn full points. ${ }^{\mathrm{xv}}$

Subgroup Dropout Improvement $=($ Subgroup PY Dropout Rate - Subgroup CY Dropout Rate $)$

$$
\begin{aligned}
& 9-12 \text { Subgroup Dropout Improvement Points } \\
& =5\left[\begin{array}{c}
(\text { No.of CY eligible subgroups on which the school improved } \\
\text { from PY or maintained a dropout rate of } 0 \%) \\
(\text { No.of CY eligible subgroups at the school })
\end{array}\right]
\end{aligned}
$$

## Statistics and Graphs for Subgroup Improvement Proficiency, Graduation and Dropout

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 401-41)

Summary Tables

|  | SubProfPoints | SubGradPoints | SubDropPoints |
| :--- | ---: | ---: | ---: |
| Max | 10.00 | 5.00 | 5.00 |
| Mean | 5.11 | 3.46 | 3.20 |
| Min | 0.00 | 0.00 | 0.00 |
| StdDev | 2.75 | 1.76 | 1.48 |
| StdErr | 0.15 | 0.10 | 0.07 |
| Range | 10.00 | 5.00 | 5.00 |
| Var | 7.56 | 3.11 | 2.18 |
| Median | 5.00 | 4.00 | 3.33 |
| Q1 | 3.00 | 2.32 | 2.22 |
| Q3 | 7.14 | 5.00 | 5.00 |
| P1 | 0.00 | 0.00 | 0.00 |
| P5 | 0.00 | 0.00 | 0.56 |
| P10 | 1.43 | 0.00 | 1.11 |
| P90 | 8.89 | 5.00 | 5.00 |
| P95 | 10.00 | 5.00 | 5.00 |
| P99 | 10.00 | 5.00 | 5.00 |

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## Subgroup Improvement: Proficiency



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Subgroup Improvement: Graduation


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Subgroup Improvement: Drop Out


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

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

EL 9-12 Statewide CY Proficiency \%
$=100\left[\frac{(\text { Sum of School Averages that have the necessary AZELLA FAY } n-\text { count })}{(\text { No.of Schools that have the necessary AZELLA FAY } n-\text { count to be eligible for points })}\right]$
Up to 5 points are awarded for proficiency using the following system:

| TRANSFORMED | Range | Points |
| :--- | :--- | :--- |
| EL Proficiency is greater than or equal to the EL Statewide Current <br> Year Percent Proficient | $23.54-100$ | 5 |
| EL Proficiency standard deviation compared to the EL Statewide <br> Current Year Percent Proficient is between -0.01 and -0.50 | $17.98-23.53$ |  |
| EL Proficiency standard deviation compared to the EL Statewide <br> Current Year Percent Proficient is between -0.51 and -1.00 | $12.41-17.97$ | 4 |
| EL Proficiency standard deviation compared to the EL Statewide <br> Current Year Percent Proficient is between -1.01 and -2.00 | $1.28-12.40$ | 2 |
| EL Proficiency standard deviation compared to the EL Statewide <br> Current Year Percent Proficient is between -2.01 and -3.00 | $0.00-1.27$ | 1 |
| If a school's EL Proficiency is 0\%, due to no reclassification | 0.0000 | 0 |

EL growth calculates the growth percentage of EL students using their current year compared to prior year AZELLA results ${ }^{\text {xvi }}$. In addition, any student who takes a placement exam for the first time by October $1^{\text {st }}$ 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 |  |
| Pre-Emergent/Emergent | Basic | 1 |
| Basic | Intermediate |  |
| Intermediate | Proficient |  |
| Pre-Emergent/Emergent | Intermediate |  |
| Basic/Intermediate | Proficient | 2 |
| Basic | Proficient |  |
| Pre-Emergent/Emergent | Proficient | 3 |

The following formula is used to calculate growth:

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

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

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

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

| TRANSFORMED | Range | Points |
| :--- | :--- | :--- |
| EL Growth is greater than or equal to the EL Statewide Current <br> Year Percent Growth | $43.70-100$ | 5 |
| EL Growth standard deviation compared to the EL Statewide <br> Current Year Percent Growth is between -0.01 and -0.50 | $36.27-43.69$ | 4 |
| EL Growth standard deviation compared to the EL Statewide <br> Current Year Percent Growth is between -0.51 and -1.00 | $28.83-36.26$ | 3 |
| EL Growth standard deviation compared to the EL Statewide <br> Current Year Percent Growth is between -1.01 and -2.00 | $13.96-28.82$ | 2 |
| EL Growth standard deviation compared to the EL Statewide <br> Current Year Percent Growth is between -2.01 and -3.00 | $0.00-13.95$ | 1 |
| If a school's EL Growth is 0\%, due to no Growth | 0.0000 | 0 |

## Statistics and Graphs for EL

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 39-40)

Summary Tables

|  | TotalELGrowthPoints | TotalELProficiencyPoints | ELProficiencyandGrowthPoints |
| :--- | ---: | ---: | ---: |
| Max | 5.00 | 5.00 | 10.00 |
| Mean | 4.25 | 3.67 | 7.92 |
| Min | 0.00 | 0.00 | 0.00 |
| StdDev | 1.10 | 1.48 | 2.25 |
| StdErr | 0.09 | 0.12 | 0.18 |
| Range | 5.00 | 5.00 | 10.00 |
| Var | 1.20 | 2.18 | 5.07 |
| Median | 5.00 | 4.00 | 9.00 |
| Q1 | 4.00 | 3.00 | 7.00 |
| Q3 | 5.00 | 5.00 | 10.00 |
| P1 | 0.00 | 0.00 | 0.00 |
| P5 | 2.00 | 0.00 | 4.00 |
| P10 | 3.00 | 2.00 | 5.00 |
| P90 | 5.00 | 5.00 | 10.00 |
| P95 | 5.00 | 5.00 | 10.00 |
| P99 | 5.00 | 5.00 | 10.00 |

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## Total English Language Growth Points



## Total English Language Proficiency Points



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Total English Language Points Earned for Growth and Proficiency


## 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 | 2018 | $5.0 \%$ |
| 5 -year | 2017 | $4.0 \%$ |
| 6-year | 2016 | $2.5 \%$ |
| 7 -year | 2015 | $0.5 \%$ |

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

4,5,6, and 7 - year Grad Rate Points $=(0.05$ (Cohort 20184-yearGrad rate $))+(0.04$ (Cohort 2017 5-year Grad rate) $)+(0.025$ (Cohort 20166 -year Grad rate) $)+(0.005($ (Cohort 20157 -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 2018 4-year graduation rate is greater than or equal to $90 \%=10$ points
- The difference between a school's Cohort 2018 4-year graduation rate and Cohort 2017 4-year graduation rate is greater than 2 points $=10$ points
- The difference between a school's Cohort 2018 4-year graduation rate and Cohort 2017 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 20184 -year graduation rate and Cohort 20174 -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)

## Statistics and Graphs Graduation

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 39-40)

Summary Tables

|  | gradrate | GradRatelmpPoints4Y | GraduationRate |
| :--- | ---: | ---: | ---: |
| Max | 10.00 | 10.00 | 20.00 |
| Mean | 9.41 | 7.65 | 17.06 |
| Min | 0.00 | 0.00 | 3.00 |
| StdDev | 1.77 | 3.85 | 4.68 |
| StdErr | 0.10 | 0.21 | 0.26 |
| Range | 10.00 | 10.00 | 17.00 |
| Var | 3.15 | 14.80 | 21.93 |
| Median | 10.00 | 10.00 | 20.00 |
| Q1 | 10.00 | 5.00 | 15.00 |
| Q3 | 10.00 | 10.00 | 20.00 |
| P1 | 0.00 | 0.00 | 5.00 |
| P5 | 5.00 | 0.00 | 7.00 |
| P10 | 8.00 | 0.00 | 10.00 |
| P90 | 10.00 | 10.00 | 20.00 |
| P95 | 10.00 | 10.00 | 20.00 |
| P99 | 10.00 | 10.00 | 20.00 |

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## Graduation Rate Points (Weighted 4,5,6,7-year)



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Graduation Points 4-Year


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## Graduation Points Total



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## 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 2019 to be eligible for these points. These students should have been enrolled by October 1 and stayed continuously enrolled until May 1. Cohort 2019 students who graduated either during fiscal year 2019 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 by July 31, 2019. 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 ${ }^{\text {xvi }}$ enrollment earn one bonus point

| Value | Indicators |
| :---: | :--- |
| 1.25 <br> Blue | Earns a Grand Canyon Diploma or International Baccalaureate <br> Diploma |
| 1.25 <br> Red | Completes a CTE sequence and passes the Arizona Technical Skills <br> Assessment for that sequence |
| .5 per exam <br> Blue | Passing score on AzMERIT Algebra 2 or ELA 11 |
| .35 per exam <br> Blue | Meets cut score on ACT English, math, reading or science exam |
| .5 per exam <br> Blue | Meets cut score on SAT English or math exam |
| .5 per exam <br> Blue | Meets cut score on any AP exam |
| .5 <br> Red or Blue | Completes the FAFSA |
| .5 per course <br> Red | Passes a college level career pathway (CTE) course for which college credit can <br> be earned with an A, B, or C (i.e. dual enrollment and concurrent enrollment) |
| .5 per course <br> Blue | Passes a college level English, math, science, social studies, or foreign language <br> course for which college credit can be earned with an A, B, or C (i.e. dual <br> enrollment and concurrent enrollment) |
| .25 per course <br> Red | Completes a CTE course with an A, B, or C (outside of completed sequence <br> referenced above) - |
| .5 <br> Red | Meets benchmarks for ASVAB |


| .5 <br> Red | Meets benchmarks for ACT WorkKeys |
| :---: | :--- |
| .35 per exam <br> Blue | Meets cut score on ACCUPLACER, ALEKS, COMPASS (or any nationally recognized <br> college placement exam currently used by an Arizona institution), or Cambridge <br> IGCSE English, reading, writing, math, social studies, science, or foreign language <br> exam |
| .5 per exam <br> Blue | Meets cut score on CLEP, Cambridge A or AS, or IB English, math, social studies, <br> science, or foreign language exam |
| .5 per credential, <br> certificate, or <br> license Red | Earns an Industry-Recognized Credential, Certificate, or License <br> No more than one point may be awarded in this indicator. |
| 1 | Completes well-defined Work-Based Learning (i.e. internship) of at least 120 <br> hours |
| 1 <br> Redue | Meets all 16 Arizona Board of Regents program of study requirements - an <br> A, B, or C is earned in the 16 core courses |

## COLLEGE AND CAREER READINESS RUBRIC CREDENTIALS - See Appendix for full list

## 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


## Statistics and Graphs College and Career Readiness

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 39-40)
Summary Tables

|  | CCRPoints |
| :--- | ---: |
| Max | 22.00 |
| Mean | 16.84 |
| Min | 0.40 |
| StdDev | 3.58 |
| StdErr | 0.21 |
| Range | 21.60 |
| Var | 12.80 |
| Median | 17.40 |
| Q1 | 15.00 |
| Q3 | 19.40 |
| P1 | 5.40 |
| P5 | 10.20 |
| P10 | 12.50 |
| P90 | 20.80 |
| P95 | 21.10 |
| P99 | 21.90 |

College and Career Readiness Points Earned


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## 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

## Special Education Enrollment

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 $80 \%$ of the state average 10.35 to receive the bonus points.

The following formulas are used for the calculations:

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

Statewide CY FAY SPED Program Enrollment \%
$=100\left[\frac{(\text { No. of CY FAY students who are enrolled in a SPED program })}{(\text { Total CY FAY enrollment })}\right]$
$\mathbf{8 0} \%$ of Statewide $\%=80 \%$ (Statewide CY FAY SPED Program Enrollment \%)
FAY SPED Program Enrollment Bonus Point $=($ School Level CY FAY SPED Program Enrollment $\%-80 \%$ of Statewide \%)

## 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


## Science Proficiency

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

The following formula is used for the calculations:

$$
\text { Science Percent Proficient }=100\left[\frac{(\text { No.of CY FAY students that are P or HP on AIMS or AIMS }- \text { A Science }}{\text { (No. of FAY students tested on AIMS or AIMS }- \text { A Science }}\right]
$$

The following details how points are earned.
Science Proficiency Bonus Points ( $0,1.5$ or 3 points)

- A school's current year percentage of proficient students is greater than or equal to $61.1+=3$ points
- A school's current year percentage of proficient students is greater than 36.5 and less than $61.09=1.5$ points ${ }^{\text {xviii }}$


## Statistics and Graphs Bonus Points

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 39-40)

Summary Tables

|  | ccribonus2 | SPEDBonusPoints | BONUS_SCI_HS | TotalBonusPoints |
| :--- | ---: | ---: | ---: | ---: |
| Max | 1.00 | 2.00 | 3.00 | 6.00 |
| Mean | 0.38 | 1.31 | 0.93 | 2.87 |
| Min | 0.00 | 0.00 | 0.00 | 0.00 |
| StdDev | 0.49 | 0.95 | 1.12 | 1.25 |
| StdErr | 0.02 | 0.05 | 0.06 | 0.07 |
| Range | 1.00 | 2.00 | 3.00 | 6.00 |
| Var | 0.24 | 0.90 | 1.26 | 1.55 |
| Median | 0.00 | 2.00 | 0.00 | 3.00 |
| Q1 | 0.00 | 0.00 | 0.00 | 2.00 |
| Q3 | 1.00 | 2.00 | 1.50 | 3.50 |
| P1 | 0.00 | 0.00 | 0.00 | 0.00 |
| P5 | 0.00 | 0.00 | 0.00 | 1.00 |
| P10 | 0.00 | 0.00 | 0.00 | 1.50 |
| P90 | 1.00 | 2.00 | 3.00 | 4.50 |
| P95 | 1.00 | 2.00 | 3.00 | 5.00 |
| P99 | 1.00 | 2.00 | 3.00 | 6.00 |

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## Bonus Points: College and Career Readiness



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Bonus Points: Special Education Enrollment


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Bonus Points: Science Assessment


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Bonus Points: Total


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## Calculating Total Points

Below are a few examples of how that can occur, however, this is not every possible combination.

Schools that meet the N -size for every indicator can earn up to 100 points.

```
Letter Grade
    \(=\left[\begin{array}{c}\text { (Proficiency Points })+(\text { Subgroup Improvement Points })+(\text { EL Proficiency } \\ \text { (and Growth Points })+(\text { Graduation Points })+(\text { College and Career Ready Points })\end{array}\right]+\) Bonus Points
```

Schools that meet the $\mathbf{N}$-size for every indicator except for EL Proficiency can earn up to 90 points:

## Letter Grade

$$
=100\left|\frac{\left[\begin{array}{c}
(\text { Proficiency Points }+(\text { Subgroup Improvement Points }) \\
+(\text { Graduation Points })+(\text { College and Career Ready Points })
\end{array}\right]}{90}\right\rangle+\text { Bonus Points }
$$

Schools that meet the N-size for every indicator except for EL Proficiency and College and Career Ready Points can earn up to $\mathbf{7 0}$ points:

## Letter Grade

$$
=100\left\langle\frac{\left[\begin{array}{c}
(\text { Proficiency Points })+(\text { Subgroup Improvement Points }) \\
+(\text { Graduation Points })
\end{array}\right]}{70}\right\rangle+\text { Bonus Points }
$$

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 $\mathbf{5 0}$ points:

## Letter Grade

$$
=100\left\langle\frac{[(\text { Proficiency Points })+(\text { Subgroup Improvement Points })]}{50}\right\rangle+\text { Bonus Points }
$$

Schools without enough students to be eligible for 50 points will be not rated in FY19.

## Statistics and Graphs Total Points

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 39-40)

## Summary Tables

|  | totalpointsearned |
| :--- | ---: |
| Max | 105.06 |
| Mean | 72.36 |
| Min | 30.82 |
| StdDev | 15.48 |
| StdErr | 0.87 |
| Range | 74.24 |
| Var | 239.72 |
| Median | 71.79 |
| Q1 | 61.76 |
| Q3 | 83.41 |
| P1 | 35.09 |
| P5 | 45.74 |
| P10 | 53.14 |
| P90 | 92.68 |
| P95 | 100.19 |
| P99 | 102.89 |

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## Total Points Earned



## Appendix

## List of Acronyms and Abbreviations

| Acronym/Abbreviation | Meaning |
| :--- | :--- |
| ADM | Annual Daily Membership |
| AIMS | Arizona Instrument to Measure the Standard |
| AIMS-A | Arizona Instrument to Measure the Standard - A (Special Education Test) |
| AVG | Average |
| AzEDS | Arizona Education System |
| AZELLA | Arizona English Language Learner Assessment |
| AzMERIT | Arizona's Measurement of Educational to Inform Teaching |
| 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 AzMERIT |
| MP | Minimally Performing on AzMERIT |
| MSAA | Multi-State Alternate Assessment |
| No. | Number |
| P | Proficient Performing on AzMERIT |
| PL1 | Performance Level 1 on Menu of Assessments Exam |
| PL2 | Performance Level 2 on Menu of Assessments Exam |
| PL3 | Performance Level 3 on Menu of Assessments Exam |
| PL4 | Performance Level 4 on Menu of Assessments Exam |
| PP | Partially Performing on AzMERIT |
| PY | Previous Year |
| RALEP | Recently Arrived Limited English Proficiency |
| SG | Subgroup |
| SPED | Special Education |
|  |  |

## List of Statistical Summary Tables and Graph Definitions

## Summary Table

| Term | Full Name | Definition |
| :--- | :--- | :--- |
| Max | maximum | The largest observation |
| Min | minimum | The smallest observation |
| Mean | aka "average" | The sum of all numbers divided by the number of observations |
| Range | range | The difference between the lowest and highest value |
| StdDev | standard deviation | Is a measure of the amount of variation or dispersion of a set of <br> values |
| StdErr | standard error | Is the standard deviation of its sampling distribution or an |


| Term | Full Name | Definition |
| :--- | :--- | :--- |
| Var | variance | estimate of that standard deviation |
| Median | median | Is the expectation of the squared deviation of a random <br> variable from its mean |
| Q1 | quartile one (first <br> quartile) | The middle observation in a set of data <br> quartile three (third <br> quartile) |
| Q3 | A number for which 75\% of the data is less than that number |  |
| P1 | $1^{\text {st }}$ percentile | Is a measure used in statistics indicating the value below which <br> a given percentage of observations in a group of observations <br> falls. Only 1\% of observations are below this number. |
| P5 | $5^{\text {th }}$ percentile | Is a measure used in statistics indicating the value below which <br> a given percentage of observations in a group of observations <br> falls. Only 5\% of observations are below this number |
| P10 | $10^{\text {th }}$ percentile | Is a measure used in statistics indicating the value below which <br> a given percentage of observations in a group of observations <br> falls. Only 10\% of observations are below this number |
| P90 | $90^{\text {th }}$ percentile | Is a measure used in statistics indicating the value below which <br> a given percentage of observations in a group of observations <br> falls. $90 \%$ of observations are below this number |
| P95 | $95^{\text {th }}$ percentile | Is a measure used in statistics indicating the value below which <br> a given percentage of observations in a group of observations <br> falls. $95 \%$ of observations are below this number |
| P99 | $99^{\text {th }}$ percentile | Is a measure used in statistics indicating the value below which <br> a given percentage of observations in a group of observations <br> falls. 99\% of observations are below this number |

## Career and Technical List of Qualifying Programs

## SY2019 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 ExcellenceFire Fighter I and II
- Arizona Cosmetology License
- Arizona Department of Public SafetySecurity 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

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[^0]:    ${ }^{i}$ Added Graphs and Statistics
    ii Corrected definition of FAY per SBE approved changes for FY19 2019-06-27
    iii Added clarification about enrollment breaks and AZELLA FAY 2019-10-29
    ${ }^{\text {iv }}$ Added EL FEP definition 2019-07-01
    ${ }^{v}$ Added English Learner Cohort definition 2019-10-29
    ${ }^{\text {vi }}$ Added Fluent English Proficient definition 2019-07-01
    vii Added Homeless Cohort definition 2019-10-29
    viii Added Special Education Cohort definition 2019-10-29
    ${ }^{i x}$ Added clarification about the students included in the A-F Static File 2019-06-18
    x Added 3 D's information 2019-10-29
    ${ }^{\text {xi }}$ Added clarification that year 1 and year 2 RALEP students are removed from proficiency calculations 2019-09-03
    xii Clarified the students included in the EL subgroup for Subgroup Proficiency Improvement 2019-07-01
    xiii Added Homeless subgroup 2019-10-29
    ${ }^{\text {xiv }}$ Added clarification about RALEP 1 and 2 students 2019-10-29
    ${ }^{\text {xv }}$ Corrected wording and formula 2019-11-06
    xvi Removed reference to kindergarten students 2019-10-29
    xvii Clarified CCRI Bonus point 2019-10-29
    xviii Corrected wording 2019-11-06

