2018 A-F Letter Grade Accountability System: Traditional Schools Business Rules and Statistical Results

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Contents

Introduction

These business rules detail Arizona's 2018 A-F Traditional Schools Letter Grade Accountability System for educators, parents, and other stakeholders. The Arizona Department of Education's (ADE) mission is to serve Arizona's education community, ensuring every child has access to an excellent education. As a state, we are also committed to holding schools accountable to this goal using a fair accountability model that differentiates the performance of schools and Local Education Agencies (LEAs).

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

Overview of the A-F Letter Grade Accountability System

As outlined by A.R.S. §15-241, the State Board of Education (SBE) determined the criteria for each school classification. 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 models that were approved on May 21, 2018.

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

Data Inclusion Criteria

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

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

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

2-year FAY – Students who are FAY two consecutive years in a row (FY17, FY18) at the same school. 2-year FAY students are not included in 1-year FAY calculations.

3-year FAY – Students who are FAY three consecutive years in a row (FY16, FY17, FY18) at the same school. 3-year FAY students are not included in 2-year FAY and 1-year FAY calculations.

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

Special Education Student – Any student receiving special education services on October 1, 2017 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/

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 FAY students. The only exception is Grade 5-8 EOC Acceleration.

Current Year – refers to FY18

Prior Year – refers to FY17

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

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

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

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

New School – a school created in the 2017-2018 school year with a new entity ID. These schools will not receive an A-F letter score grade their first year in existence.

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	AzMERIT ELA and Math	☑	3-8, EOC	
	MSAA ELA and Math	☑	3-8, EOC	
Growth	Growth on AzMERIT ELA and Math	☑	3-8, EOC	
EL	EL Proficiency and Growth	☑	ALL	
Acceleration /Readiness	Grades 5-8 HS EOC Math	☑	5-8	
	Grade 3 ELA	☑	3	
	Chronic Absenteeism		K-8	
	Subgroup Improvement	☑	3-8	
	Special Education Inclusion	☑	K-8	
Graduation Rate	4-year Graduation rate		12	Cohort 2017, Cohort 2016
	5-year Graduation rate		12	Cohort 2016
	6-year Graduation rate		12	Cohort 2015
	7-year Graduation rate		12	Cohort 2014
College and Career Readiness	Career and College Readiness Self-Report		9-12	2018 Cohort that were enrolled by October 1 and continuously enrolled until May 1 or graduated early. Cohort 2016 and 2017 for bonus
Bonus	AIMS and AIMS-A Science	☑	4, 8, 10	
	Special Education Enrollment	☑	K-12	

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

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

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

Data in the Growth Model

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

1. Student enrollment generates ADM in any Arizona public school (i.e., tuition payer code equal to 1 or FTE greater than 0).

2. Student has a test record from the 2017-2018 school-year.

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

3. Student also has a test record from the 2016-2017 school-year in the same subject.

4. Each student test record assesses consecutive grades (i.e., 2015 Grade 4 ELA & 2016 Grade 5 ELA, etc.) for grades 4-8 and ELA end of course (EOC) tests. Math EOC SGP and SGT were modeled If there were more than 2000 test records sharing the same growth trajectory in the three years from 2016 to 2018, which include those accelerating students who took Algebra I right after they took the math test for grade 7 in the prior year. Students in grade 3 will not have a growth score as they do not have two consecutive test records.

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

Timeline & Appeals

The following is the timeline for traditional school letter grades:

- October Release
- November Appeals
- December Finalized

Appeals

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

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

The appeals timeline for Fiscal Year 2018 is as follows.

1. The window to file an appeal of a school letter grade opened October 5, 2018
2. The window to file an appeal of a school letter grade closed October 20, 2018
3. The State Board of Education A-F Appeal Committee heard and reviewed appeals on November 19,-20, 2018, December 17, 2018, and January 4, 2019.
4. The State Board of Education voted on appeals based on the recommendation of the A-F Appeal Committee on December 17, 2018 and January 28, 2019.
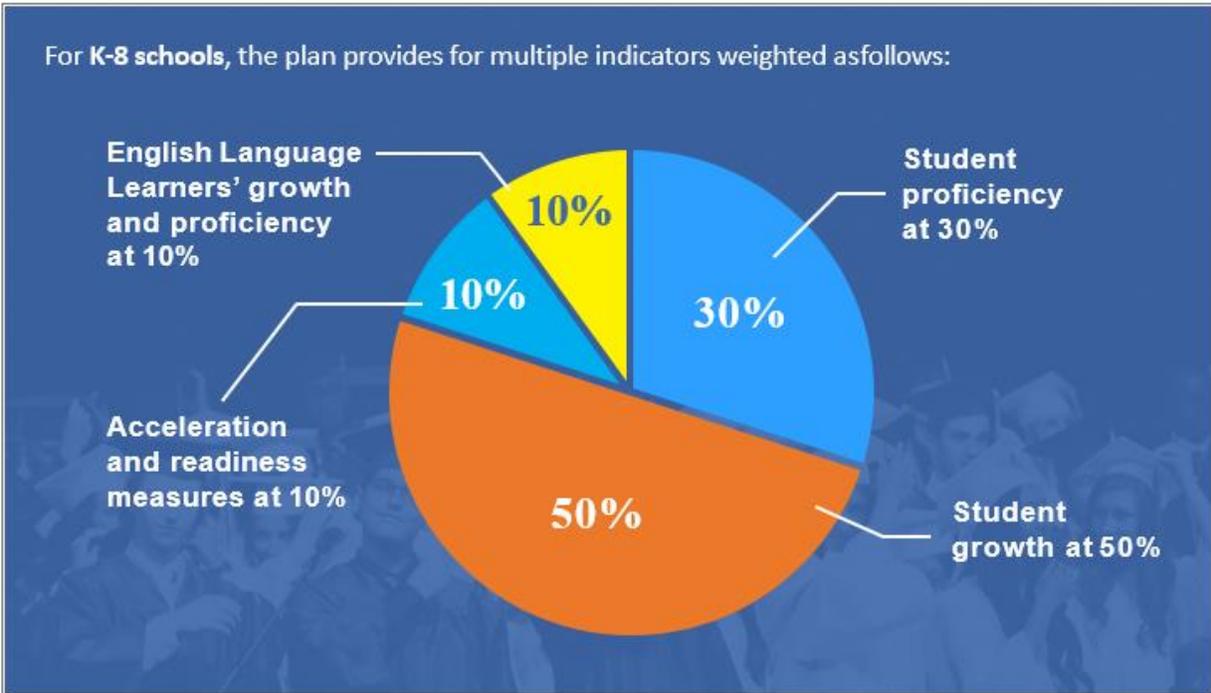
Cut Scores

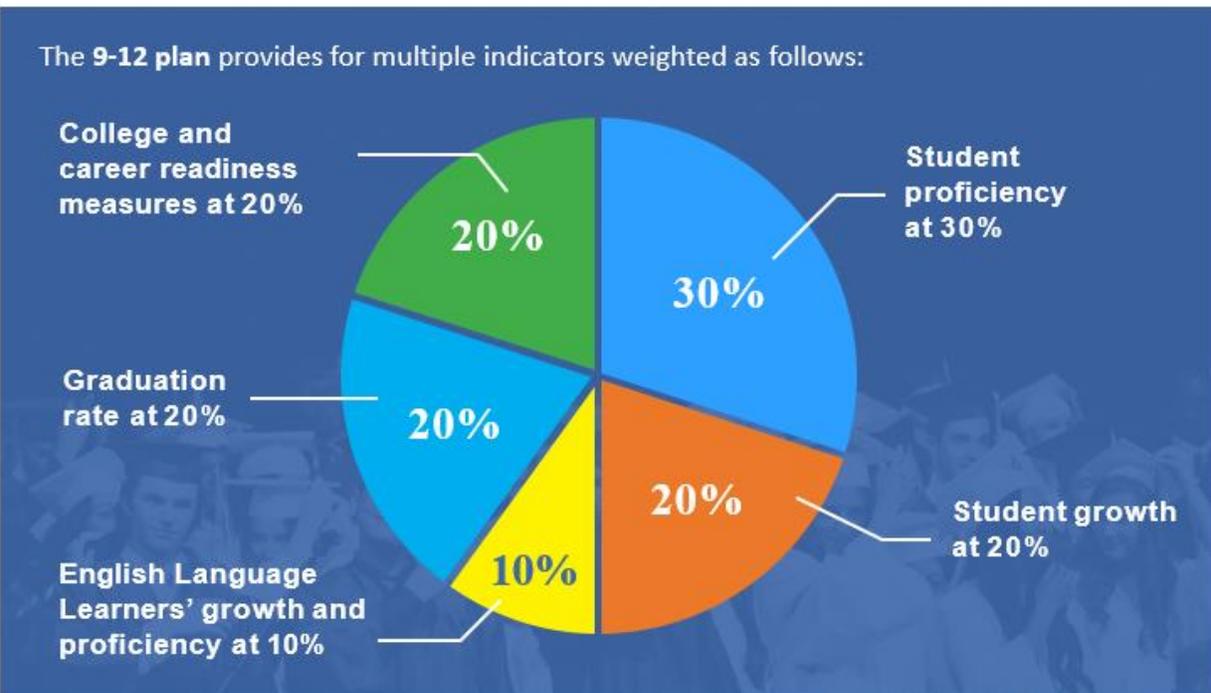There are two letter grades models:

- K-8 Letter Grade model is used for schools that serve grades Kindergarten through 8 ((or any configuration within that such as K-7, 1-6, 6-8, etc.). K-8 schools eligible for 80 or more of the 100 total points available will receive a letter grade
- 9-12 Letter Grade model is used for schools that serve grades 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.
- Non-Typical School Configuration Letter Grade model is used for schools that serve grades that span across both the K-8 and 9-12 model, such as K-12, 1-12, 2-12, 6-12, 5-11, etc. These schools are graded on both the K-8 and 9-12 Letter Grade models and then the percentage of FAY students enrolled is used to determine the weighting of the K-8 and 9-12 letter grades to assign the school one overall letter grade.
- Due to the fact that schools can earn a different amount of points, cut scores for letter grades for all models were established on percentages. Percentage Earned = Total Points Earned (excluding bonus points) / Total Points Eligible. Cut scores for FY18 are below.

K-8 Total Score				
A	B	C	D	F
84.67-100%	72.39-84.66%	60.11-72.38%	47.83-60.10%	<47.82%
9-12 Total Score				
A	B	C	D	F
83.83-100%	70.02-83.82%	56.21-70.01%	42.40-56.20%	<42.39%

K-8 model:

For **K-8 schools**, the plan provides for multiple indicators weighted as follows:

- English Language Learners' growth and proficiency at 10% — 10%
- Acceleration and readiness measures at 10% — 10%
- Student proficiency at 30% — 30%
- Student growth at 50% — 50%

9-12 model:

The **9-12 plan** provides for multiple indicators weighted as follows:

- College and career readiness measures at 20% — 20%
- Graduation rate at 20% — 20%
- English Language Learners' growth and proficiency at 10% — 10%
- Student proficiency at 30% — 30%
- Student growth at 20% — 20%

Non-Typical School Configuration Model:

- *All schools are weighted by the proportion of K-8 and 9-12 students*
- *Total points, points eligible, and bonus points are calculated for K-8 and 9-12 as possible for all schools*
- *Most schools are either 100% K-8 or 100% 9-12 and are weighted as such*
- *Schools with a non-typical grade configuration are weighted to reflect the enrollment of the school.*
  - *For example: If 90% of FAY is grades 3-8 and 10% of FAY is grades 9-12, the K-8 model will count 90%.*

Note that the models are for traditional schools only. K-2 and K-3 schools will not be labeled for FY18 as there is no available data. Alternative, AOI and extremely small schools will not receive letter grades for FY18 per SBE vote on May 21, 2018.

2018 A-F Traditional School Letter Grade Models

Two distinct traditional school models compose Arizona's 2018 A-F Letter Grade Accountability System. Each model aims to fairly and accurately depict a school's accountability determination in a manner which complies with state statute, State Board Rule, as well as other accountability requirements.

Schools that serve grades K-8 or any combination within (e.g., K-8, K-7, 1-5, 6-8, K-5, etc.) will be evaluated on the K-8 model. 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. Small schools, fewer than 10 FAY students, or schools not eligible for enough of the total 100 points (80 for K-8 and 50 for 9-12) will be Not Rated.

N-Size

Both traditional school models require schools to have 10 FAY students in each indicator to be eligible to earn the points. Exceptions to this rule are:

- K-8 Acceleration/Readiness grades 5-8 EOC does not require FAY N-Size of 10
- Special Education enrollment bonus points does not require FAY N-Size of 10
- Graduation rate – requires 10 students (FAY and non-FAY in the 4-year cohort)
- CCRI – requires 10 students in cohort 2018 defined on page 7 in the table

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

RALEPS

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

K-8 Model

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

The K-8 model is based on a scale of 0-100 points for schools that have all available indicators; the scale is adjusted for those indicators that do not meet the N-Size. All indicators must have a minimum of 10 FAY students to count, excluding the grades 5-8 HS EOC metric in the Acceleration/Readiness indicator, special education enrollment bonus points and science proficiency bonus points. All indicators are capped at the total percent possible.

The following school configurations are graded on the K-8 model:
- K-8
- Configurations within K-8
  - K-5
  - K-6
  - K-7
  - 6-8
  - 5-8
  - 1-4
  - Etc.

Proficiency

Proficiency results are worth 30% of a K-8 school's letter grade. The 2018 AzMERIT or MSAA ELA, Math scores are utilized for grades 3-8 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. Grades 5-8 students who took HS EOC ELA or Math and the grade-level assessment, the HS EOC assessment will be utilized for proficiency calculations. Additionally, if grades 5-8 students took the HS EOC ELA or Math at the high school, both the high school and the elementary school in which that student is enrolled receive the credit, assuming the student is FAY. 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	0
Partially Proficient	0.6
Proficient	1.0
Highly Proficient	1.3

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

Stability model: This model weights student scores higher for students that have been at the same school for multiple years, and where the school has had the greatest opportunity to have the most impact, (see Table below for more detail). Schools that only have one or two years of proficiency will be weighted accordingly. Schools must have a minimum of 10 FAY students for each year. If the minimum is not met, those students are added to the next year. For example, if a school has eight 3-year FAY students, thirteen 2-year FAY, and twenty 1-year FAY students the 3-year and 2-year FAY group is merged as the minimum is not met for the 3-year. This would give the school twenty-one 2-year FAY students and twenty 1-year FAY.

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

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

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

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.

The formula used is to calculate percent tested:

$$Grades\ 3-8\ \%\ Tested$$
$$= 100 \left[\frac{0.5\ (No.\ of\ students\ tested\ in\ ELA + No.\ of\ Students\ Tested\ in\ Math)}{0.5(No.\ of\ students\ enrolled\ on\ ELA\ test\ date + No.\ of\ student\ enrolled\ on\ Math\ test\ date)} \right]$$

Percent Proficient for Schools that Meet 95% Tested

$% \textit{Proficient for Schools Meeting } 95\% \textit{ Tested}$

$$= 100 \left(\frac{\begin{bmatrix} ((No.\ of\ FAY\ students\ PP\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ PP\ on\ AzMERIT\ or\ MSAA\ Math)0.6) \\ +((No.\ of\ FAY\ students\ P\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ P\ on\ AzMERIT\ or\ MSAA\ Math)1.0) \\ +((No.\ of\ FAY\ students\ HP\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ HP\ on\ AzMERIT\ or\ MSAA\ Math)1.3) \end{bmatrix}}{No.\ of\ FAY\ students\ tested\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ tested\ on\ AzMERIT\ or\ MSAA\ Math} \right)$$

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

$% \textit{Proficient for Schools DO NOT Meet } 95\% \textit{ Tested}$

$$= 100 \left(\frac{\begin{bmatrix} (No.\ of\ FAY\ students\ PP\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ PP\ on\ AzMERIT\ or\ MSAA\ Math)0.6) \\ +(No.\ of\ FAY\ students\ P\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ P\ on\ AzMERIT\ or\ MSAA\ Math)1.0) \\ +(No.\ of\ FAY\ students\ HP\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ HP\ on\ AzMERIT\ or\ MSAA\ Math)1.3) \end{bmatrix}}{\begin{array}{c} (No.\ of\ FAY\ students\ tested\ on\ AzMERIT\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ tested\ on\ AzMERIT\ or\ MSAA\ Math) \\ +(No.\ of\ Students\ needed\ to\ Meet\ 95\%\ tested) \end{array}} \right)$$

Statistics and Graphs for Profiency and 95% Tested
*Please see the appendix for definition of variables found in the tables and graphs.*

Summary K-8 95 Tables

	PercentTested
Max	1.00
Mean	0.98
Min	0.00
Range	1.00
StdDev	0.09
StdErr	0.00
Var	0.01
Median	0.99
Q1	0.98
Q3	1.00
P1	0.55
P5	0.95
P10	0.97
P90	1.00
P95	1.00
P99	1.00

ADE Accountability & Research on December 26, 2018 at 7:55:23 AM

Distribution analysis of: PercentTested

The UNIVARIATE Procedure
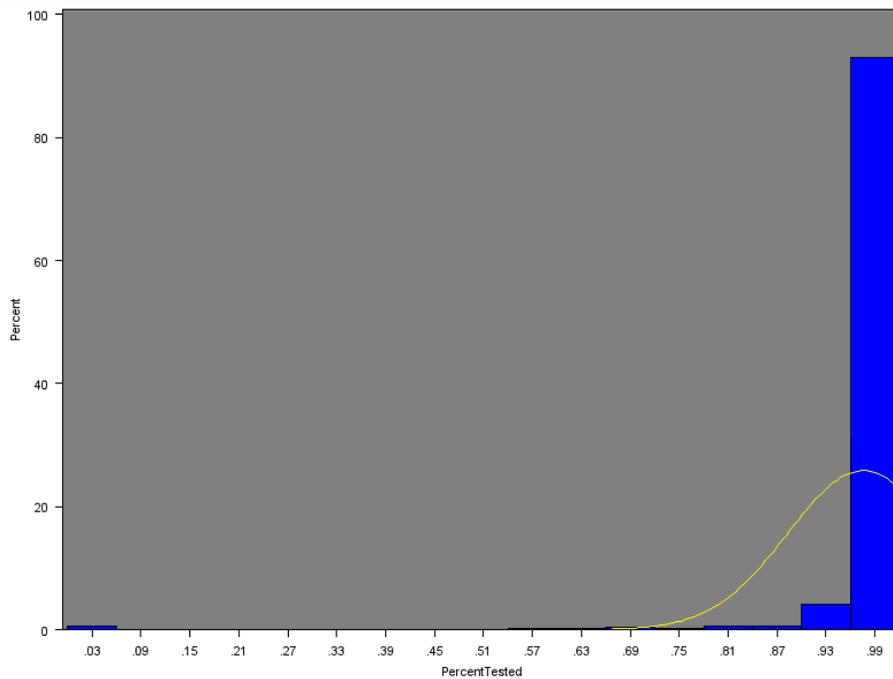
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Summary K-8 Proficiency Tables

|	PercentProficientAllStudents	profpoints
Max	118.90	30.00
Mean	60.76	17.47
Min	0.00	0.00
Range	118.90	30.00
StdDev	21.45	7.12
StdErr	0.56	0.18
Var	460.20	50.72
Median	58.98	17.33
Q1	44.68	12.87
Q3	77.54	23.11
P1	16.01	0.00
P5	28.66	5.26
P10	34.16	9.13
P90	89.25	26.72
P95	97.12	28.91
P99	106.67	30.00

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Distribution Analysis
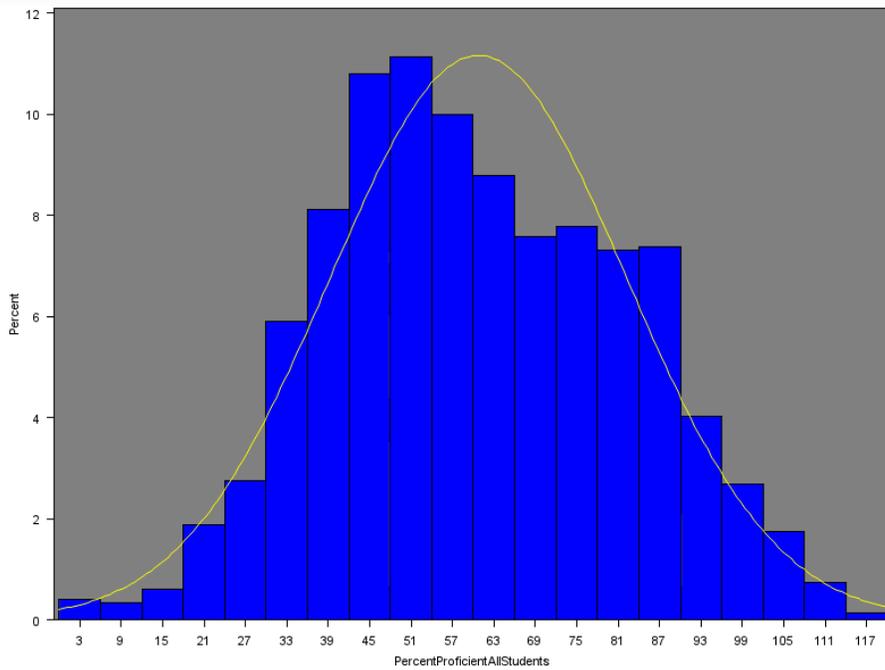
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19

Distribution Analysis
The UNIVARIATE Procedure
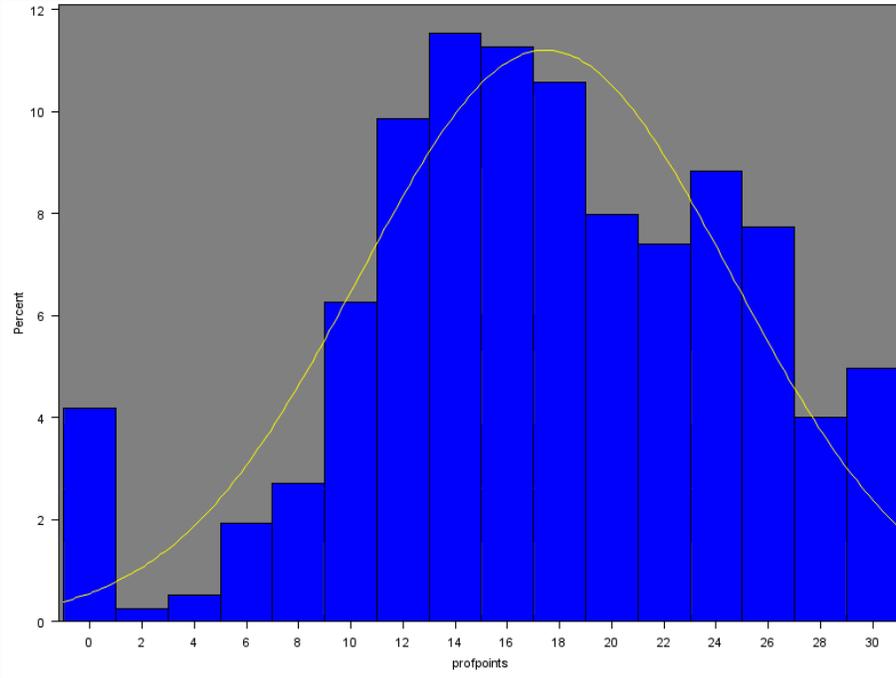
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Growth Model

The purpose of the growth indicator is to recognize the academic growth a student has made in the past year, even if he/she has not yet reached grade-level proficiency. State statute mandates that the selected growth model measures even the lowest achieving students and the extent to which they grow academically from one year to the next.

Growth results are worth 50% of a K-8 school's letter grade. Schools must have a minimum of 10 FAY students with an SGP and SGT in each subject, ELA and Math, to be eligible for growth points. Thus, SGP for ELA is worth 12.5%, SGP for Math is worth 12.5%, SGT for ELA is worth 12.5%, and SGT for Math is worth 12.5%. Math growth points (SGP + SGT) are capped at 25 and ELA points (SGP + SGT) are capped at 25, thus making growth points capped at 50.

Student Growth Percentile (SGP)

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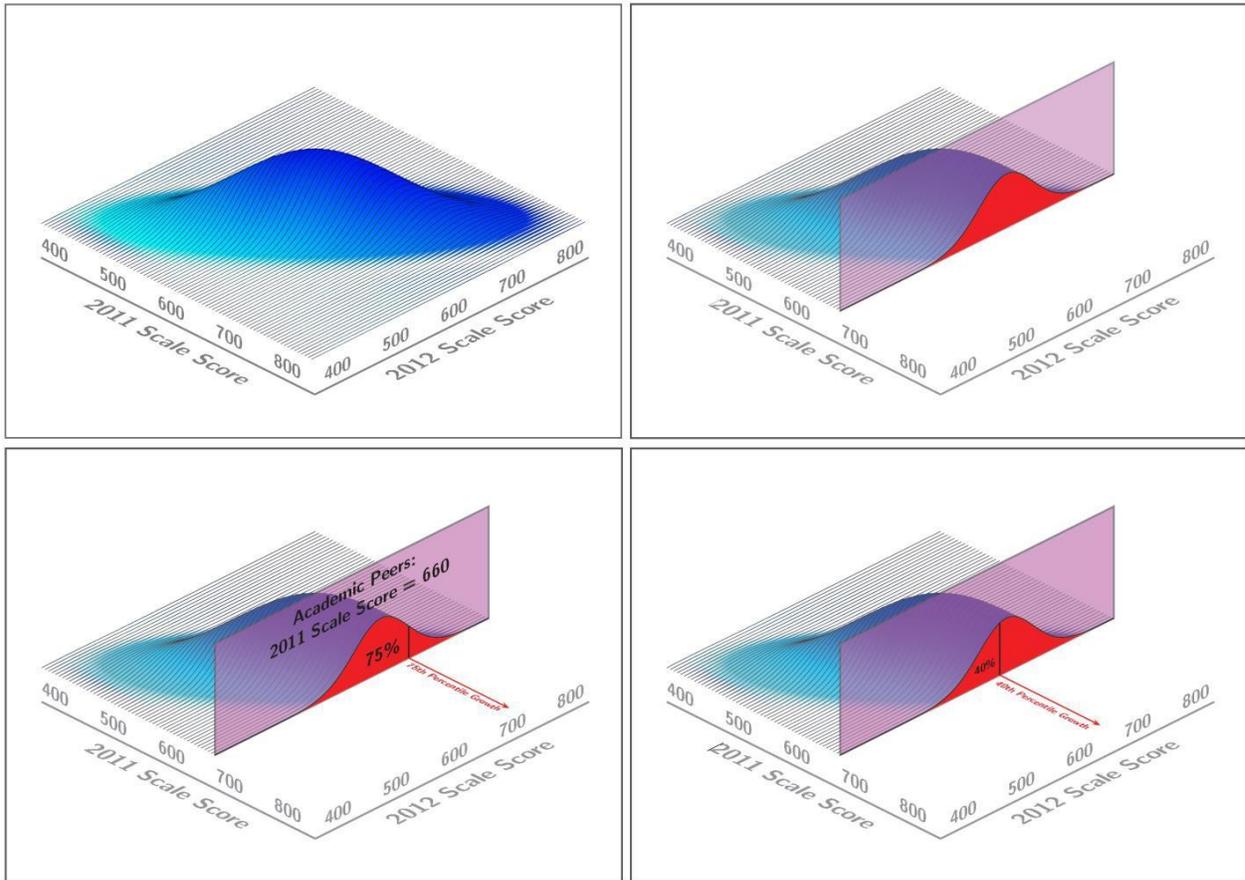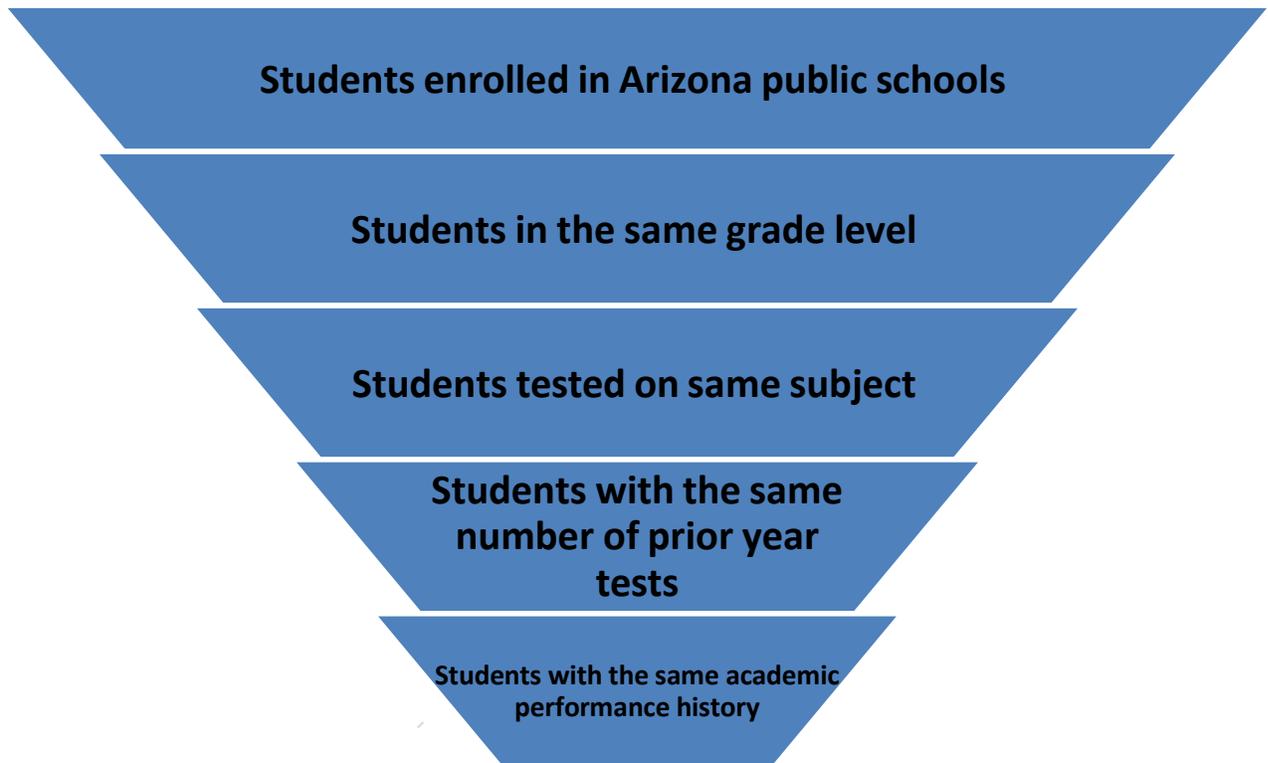
Conceptual illustration of the current year growth percentile based on prior and current year test performance (Betebenner, 2011)

In 2018, the AZMERIT Grades 3-12 scale scores from 2016 to 2018 will be used to calculate growth for Grades 4-12. Grade 3 is the first grade Arizona students are given a statewide standardized assessment; therefore; Grade 4 is the first possible opportunity to assess growth for a student. Students must have scores for 2017 and 2018 and for two consecutive grade levels to receive an SGP.

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

When available, up to three years of test history were used in the determination of a student's current year SGP. The number of years was reduced from five years after considerable research indicated diminished returns by including more than three years and more than two assessment types. If the student assesses anywhere in the state using their unique AzEDS identification number, these assessments can be linked longitudinally regardless of a new school of attendance. The growth model begins with all Arizona public school students, but academic peer groups are refined based on grade level, subject, and test history. Test history refers to the number of tests or data points available for each student as well as a comparison of scale scores – not performance levels.

Students enrolled in Arizona public schools

Students in the same grade level

Students tested on same subject

Students with the same number of prior year tests

Students with the same academic performance history

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

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

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

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

| Current-Year Student Growth Percentile			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	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:

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

SGT

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

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

To answer these questions, we compare a student's growth percentile with his growth target. A student growth target (SGT) is the minimum growth a student ought to exhibit in the year to achieve a future target. A SGT is determined by a pre-established future achievement target, a time-frame to reach the target, and the performance level of the student in the prior year. The graphic below displays how the SGTs are determined.
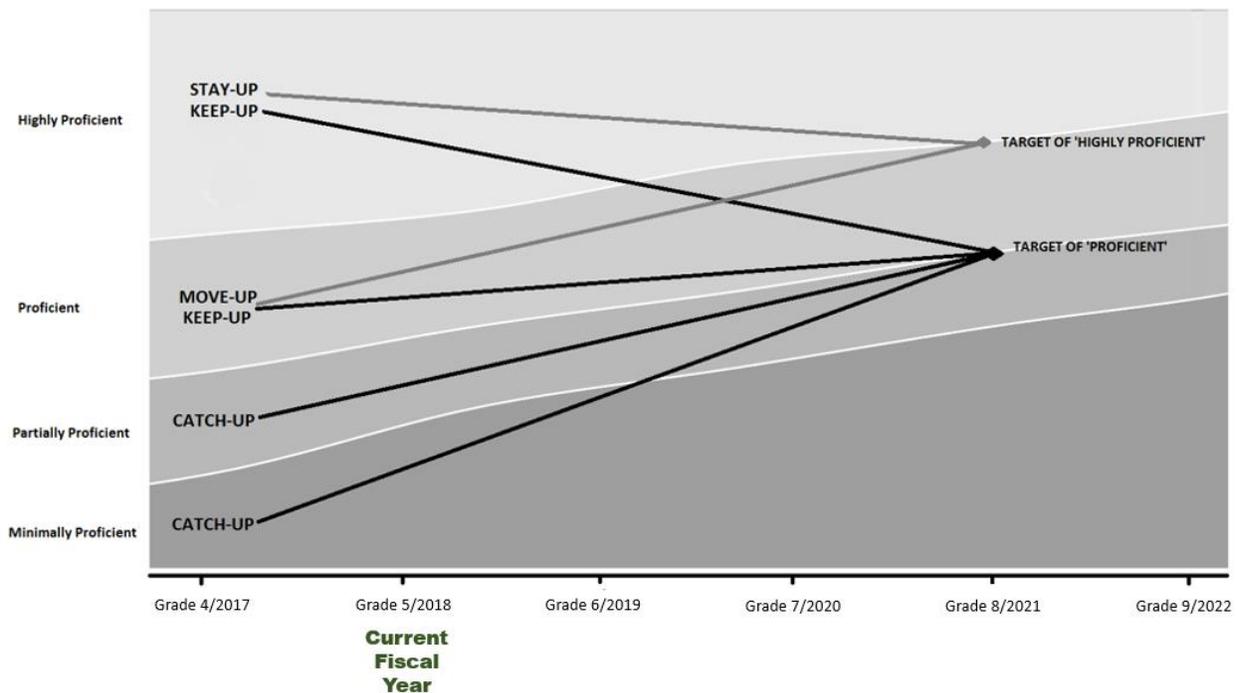
There are two pre-established targets: 'Proficient' and 'Highly Proficient'. The time frame to reach the targets is determined arbitrarily as within (or across) the next three years beyond the current year or by high school graduation, whichever comes first. The four categorical performance levels are shown on the vertical axis, and the grades/years are shown along the horizontal axis.

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

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

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

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

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

To evaluate a school's status in keeping its students on track towards being proficient, the state utilizes only four of the six student growth targets outlined above, the SGT (or the sufficient growth) for minimally proficient students to be on track to proficiency, the SGT (or the sufficient growth) for partially proficient students to be on track to proficiency, the SGT (or the sufficient growth) for proficient students to be on track to remain proficient, the SGT (or the sufficient growth) for highly

proficient students to be on track to remain proficient. The percentage of FAY students in each category is calculated at the school level across all grades but separately for each subject (English Language Arts and Mathematics). These percentages are weighted differently in the following ways:

Current-Year Student Growth Target			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	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
	<10 percentile points of target	+/- 10 percentile points of target	>10 percentile points of target
	Below Target	At or Near Target	Exceeds Target

$$\textbf{\textit{The SGT points of a school for each subject}} = \begin{pmatrix} (\% \text{ of PY MP FAY students who made high growth } x2.00) \\ +(\% \text{ of PY PP FAY students who made high growth } x1.80) \\ +(\% \text{ of PY P FAY students who made high growth } x\ 1.20) \\ +(\% \text{ of PYHP FAY who made high growth } x\ 1.00) \\ +(\% \text{ of PY } (MP + PP + P + HP) \text{who made average growth}) \end{pmatrix}$$

$$\textbf{\textit{Total Growth Points}} = 100(((0.125x(SGP\ Math) + 0.125x(SGT\ Math)) + (0.125x(SGT\ ELA) + 0.125x(SGP\ ELA)))$$
$$\textbf{\textit{Total Growth Max Points}} = (Math\ max\ points\ 25) + (ELA\ max\ points\ 25)$$
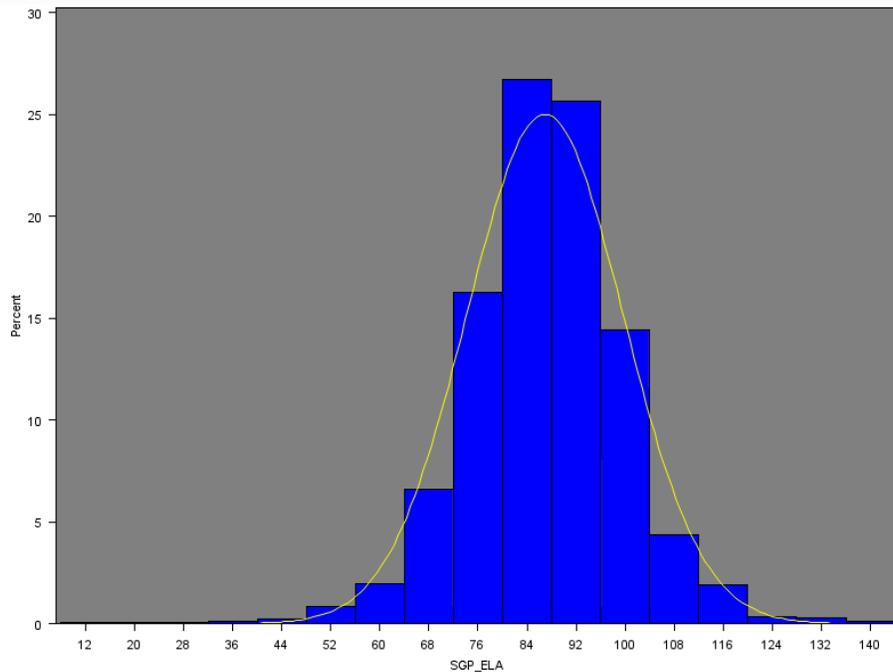
Statistics and Graphs for Growth

Summary K-8 Growth Tables

	SGP_ELA	SGPELAPoints	SGT_ELA	SGTELAPoints	SGP_math	SGPMathPoints	SGT_math	SGTMathPoints	Growth
Max	140.01	17.50	117.78	14.72	165.00	20.63	130.51	16.31	50.00
Mean	86.91	10.86	65.34	8.17	86.62	10.83	62.84	7.85	37.56
Min	15.38	1.92	6.39	0.80	9.09	1.14	0.00	0.00	6.01
Range	124.63	15.58	111.39	13.92	155.91	19.49	130.51	16.31	43.99
StdDev	12.76	1.60	17.32	2.17	18.24	2.28	21.24	2.65	6.85
StdErr	0.34	0.04	0.46	0.06	0.48	0.06	0.56	0.07	0.18
Var	162.87	2.54	300.12	4.69	332.77	5.20	451.07	7.05	46.87
Median	87.10	10.89	66.09	8.26	86.62	10.83	63.44	7.93	38.24
Q1	79.48	9.94	53.57	6.70	75.70	9.46	47.67	5.96	33.15
Q3	94.41	11.80	78.47	9.81	97.24	12.16	78.60	9.83	42.73
P1	53.44	6.68	23.99	3.00	38.84	4.86	11.54	1.44	19.70
P5	66.84	8.36	36.36	4.55	57.78	7.22	27.14	3.39	25.38
P10	72.03	9.00	42.10	5.26	64.30	8.04	35.21	4.40	28.17
P90	101.85	12.73	87.66	10.96	108.77	13.60	90.10	11.26	45.91
P95	106.74	13.34	91.59	11.45	116.44	14.56	95.26	11.91	47.56

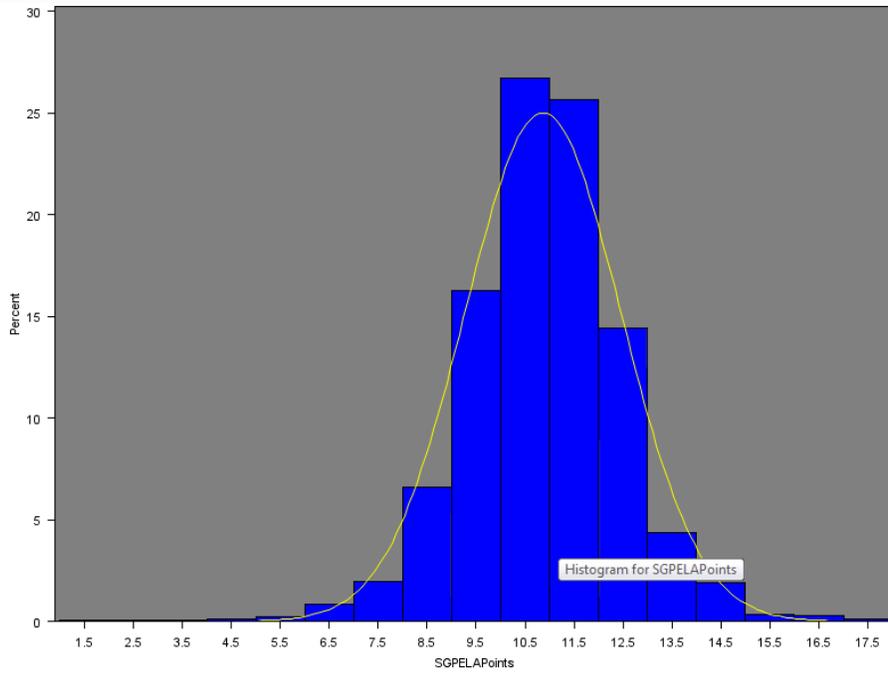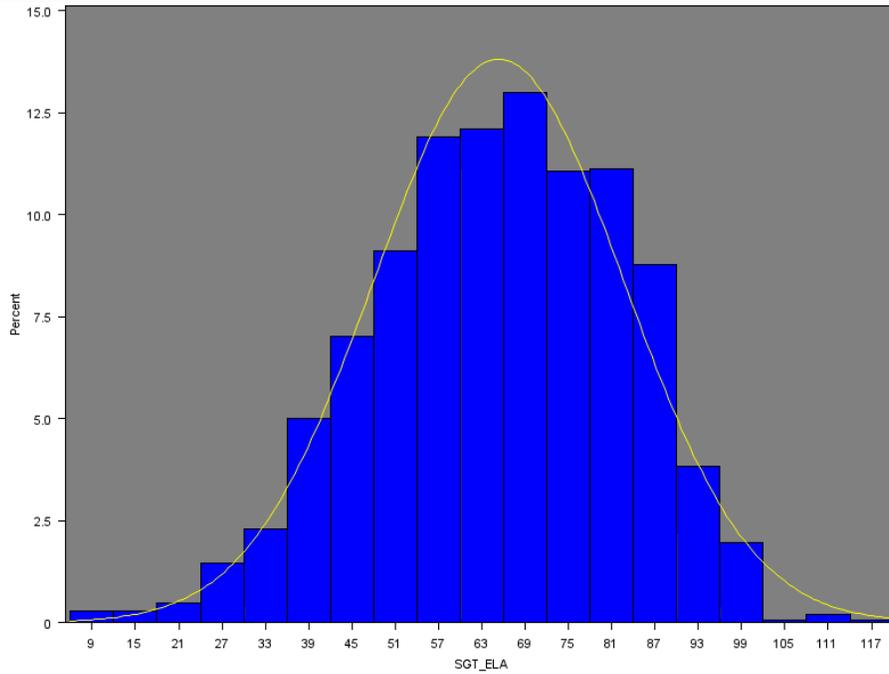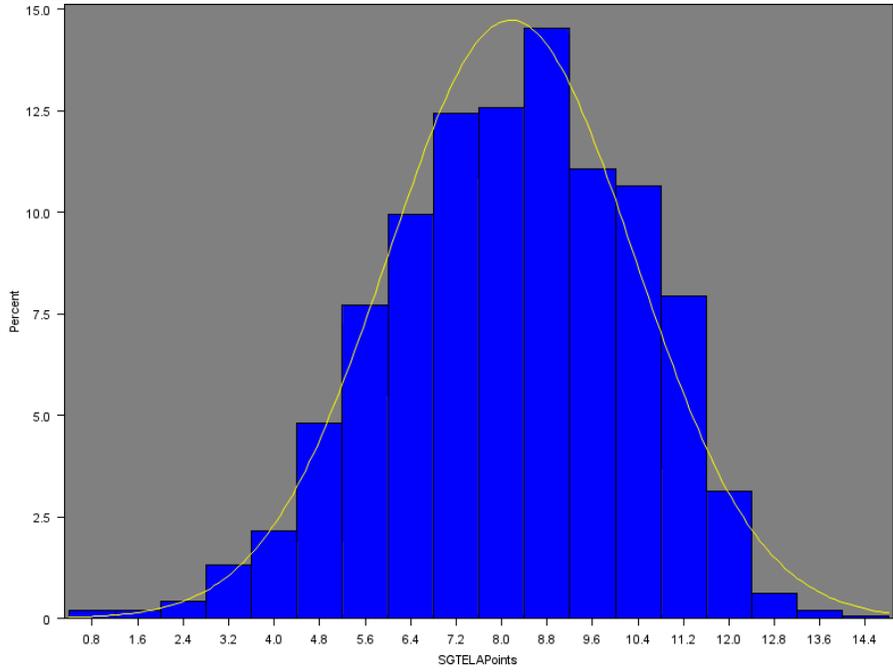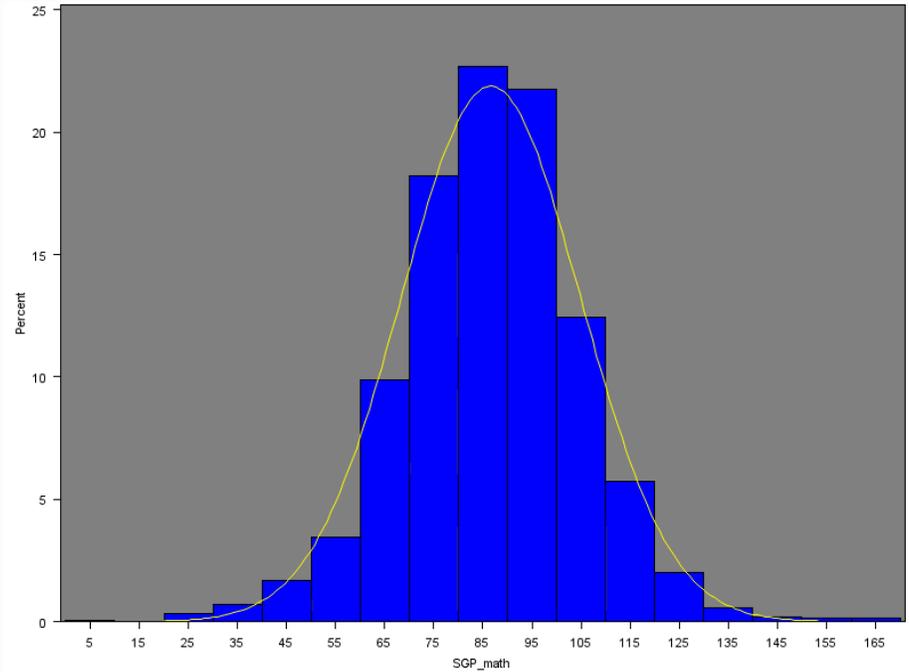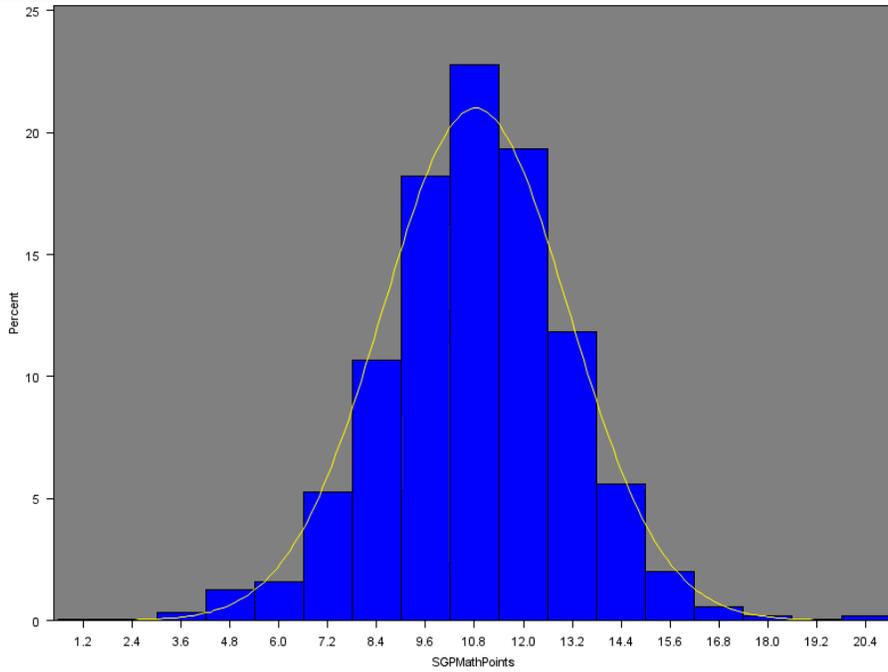ADE Accountability & Research on December 26, 2018 at 8:14:19 AM

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Histogram for SGPELAPoints

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Distribution Analysis
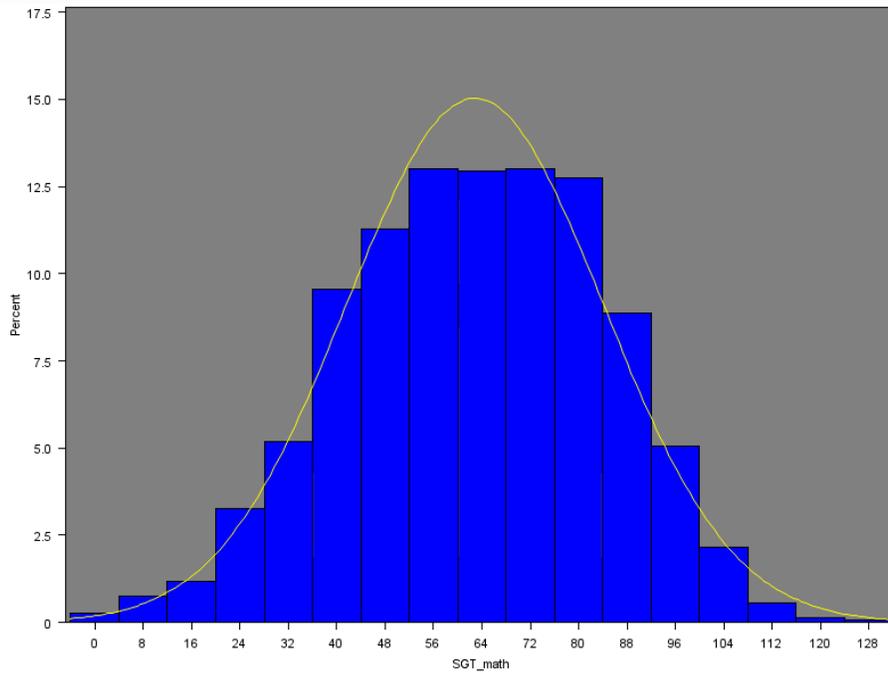### The UNIVARIATE Procedure

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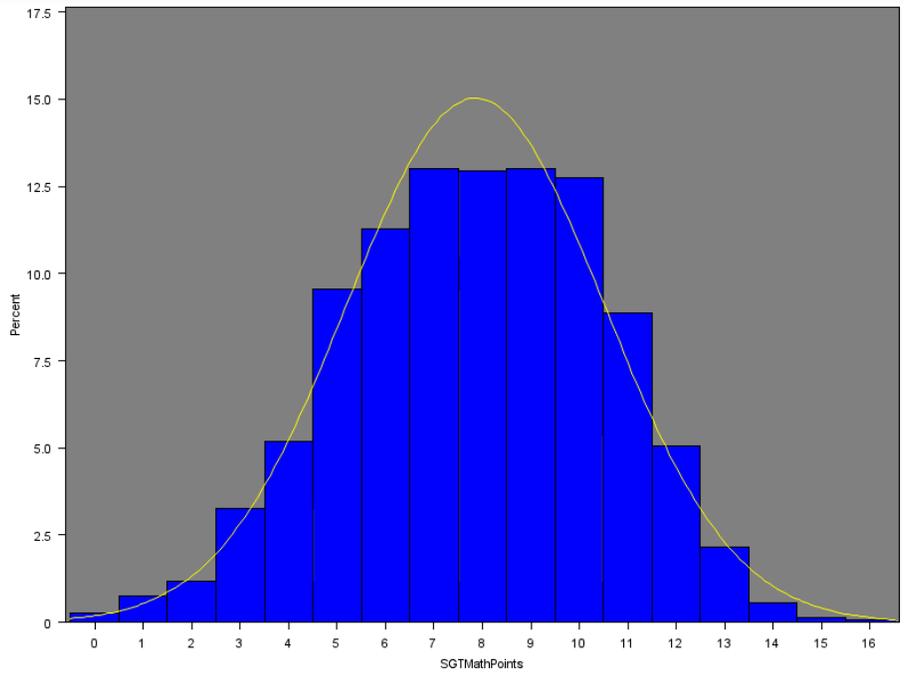### The UNIVARIATE Procedure

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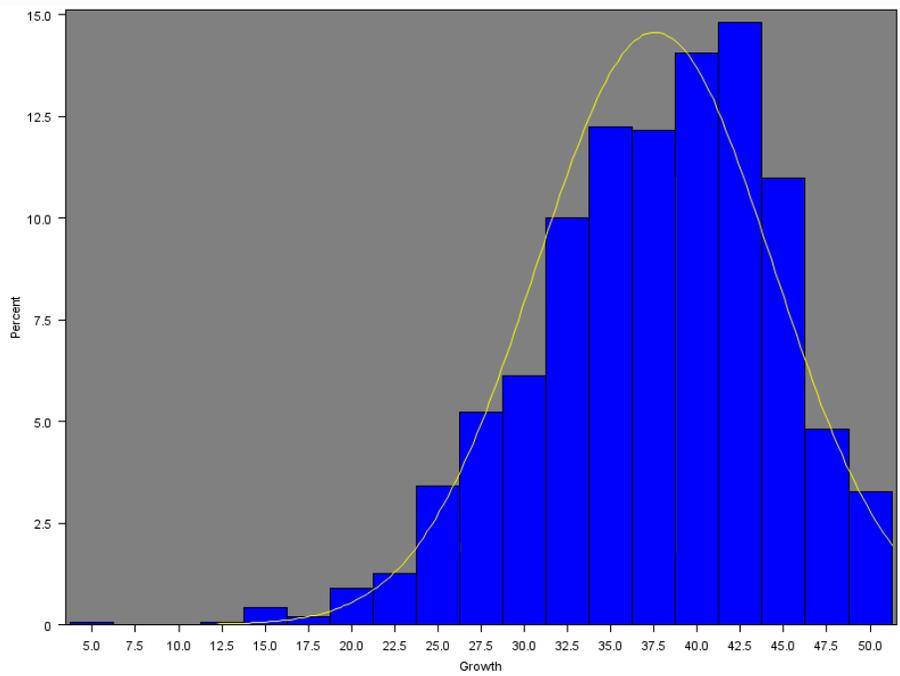### The UNIVARIATE Procedure

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Normalizing EL Data[ii]

- 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.
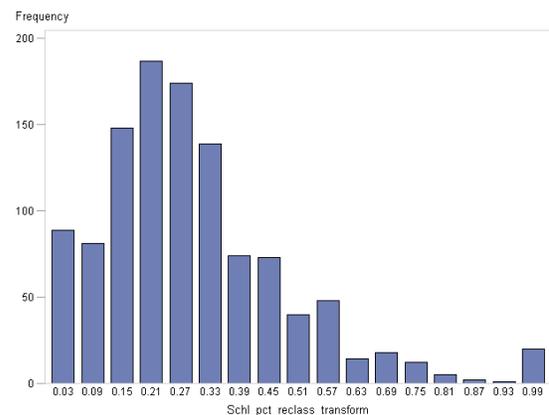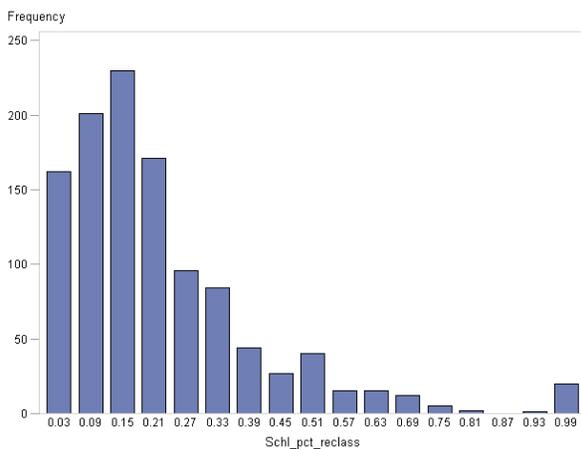
EL Proficiency and Growth

English Learner proficiency and growth is worth 10% of a K-8 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 K-8 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 students must also be FAY on AZELLA. To be included in the EL growth calculations, two test records are required. Invalid test records count as not tested. Schools with less than 10 FAY EL students are not eligible for these points. EL proficiency calculates the proficiency percentage of EL students. The following formula is used.

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

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

$$EL\ K-8\ Statewide\ CY\ Proficiency\ \% = 100 \left[\frac{(Sum\ of\ School\ Averages\ that\ have\ the\ necessary\ FAY\ n-count)}{(No.\ of\ Schools\ that\ have\ the\ necessary\ FAY\ n-count\ to\ be\ eligible\ for\ points)} \right]$$

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

TRANSFORMED	Range	Points
EL Proficiency is greater than or equal to the EL Statewide Current Year Percent Proficient	≥ 0.2600	5
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -0.01 and -0.50	0.1930 to 0.2599	4
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -0.51 and -1.00	0.1261 to 0.1929	3
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -1.01 and -2.00	0.0001 to 0.1260	2
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -2.01 and -3.00[iv]	N/A	1
If a school's EL Proficiency is 0%, due to no reclassification	0.0000	0

[1]The cut score ranges were limited to extending four decimal places. In limited cases this may mean some schools scores will not fit exactly in one of the ranges, as presented in this file.

[2]Cut scores were calculated using SAS version 9.4[v]

EL growth calculates the growth percentage of EL students using their current year compared to prior year AZELLA results, unless they are kindergarten students in which case the placement test is compared to the current year reassessment. In addition, any student who is takes a placement exam for the first time by October 1st and then takes a spring reassessment will be included.[vi] 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 FAY.

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

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

The following formula is used to calculate growth:

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

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

$$EL\ K-8\ Statewide\ Current\ Year\ Growth\ Percent$$
$$= 100 \left[\frac{\begin{pmatrix} (No.\,of\ FAY\ students\ who\ increased\ one\ proficiency\ level) \\ +(No.\,of\ FAY\ student\ who\ increased\ two\ proficiney\ levels\ x\ 2.0) \\ +(No.\,of\ FAY\ students\ who\ increased\ three\ proficiency\ levels\ X\ 3.0) \end{pmatrix}}{\begin{matrix} No.\,of\ FAY\ students\ tested\ with\ an\ EL\ need,\ including\ parent \\ withdrawals\ with\ a\ valid\ current\ and\ prior\ year\ AZELLA\ proficiency\ level \end{matrix}} \right]$$

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

TRANSFORMED	Range	Points
EL Growth is greater than or equal to the EL Statewide Current Year Percent Growth	≥ 0.6387	5
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -0.01 and -0.50	0.5347 to 0.6386	4
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -0.51 and -1.00	0.4306 to 0.5346	3
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -1.01 and -2.00	0.2226 to 0.4305	2
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -2.01 and -3.00[viii]	0.0001 to 0.2225	1
If a school's EL Growth is 0%, due to no Growth	0.0000	0

[1]The cut score ranges were limited to extending four decimal places. In limited cases this may mean some schools scores will not fit exactly in one of the ranges, as presented in this file.

[2]Cut scores were calculated using SAS version 9.4[ix]

Statistics and Graphs EL

Summary K-8 EL Tables

	TotalELGrowthPoints	TotalELProficiencyPoints	ELProficiencyandGrowthPoints
Max	5.00	5.00	10.00
Mean	2.75	3.70	7.68
Min	0.00	0.00	0.00
Range	5.00	5.00	10.00
StdDev	2.08	1.41	2.38
StdErr	0.06	0.05	0.08
Var	4.34	1.99	5.65
Median	3.00	4.00	8.00
Q1	0.00	3.00	6.00
Q3	5.00	5.00	10.00
P1	0.00	0.00	1.00
P5	0.00	0.00	3.00
P10	0.00	2.00	4.00
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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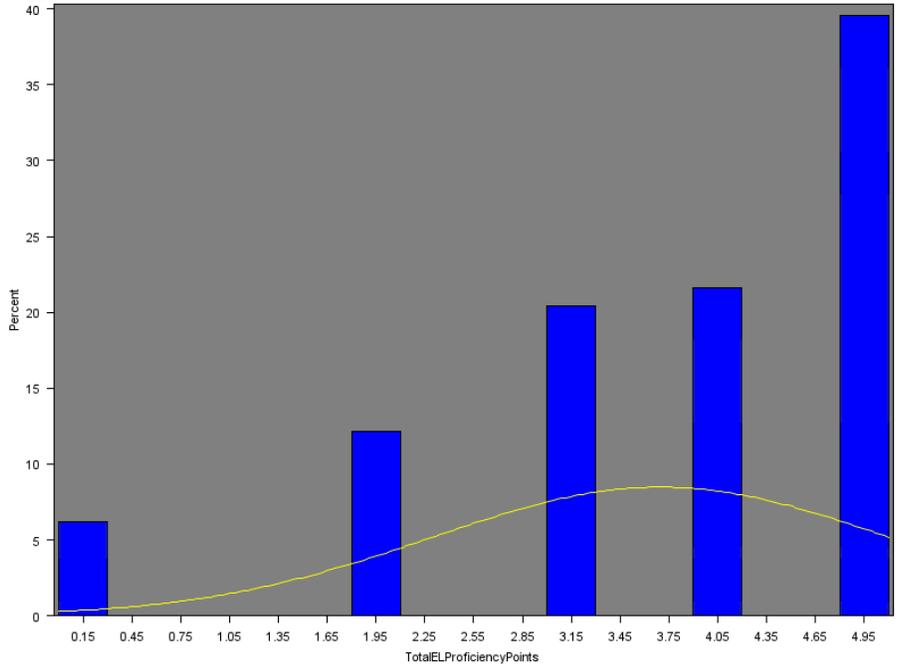
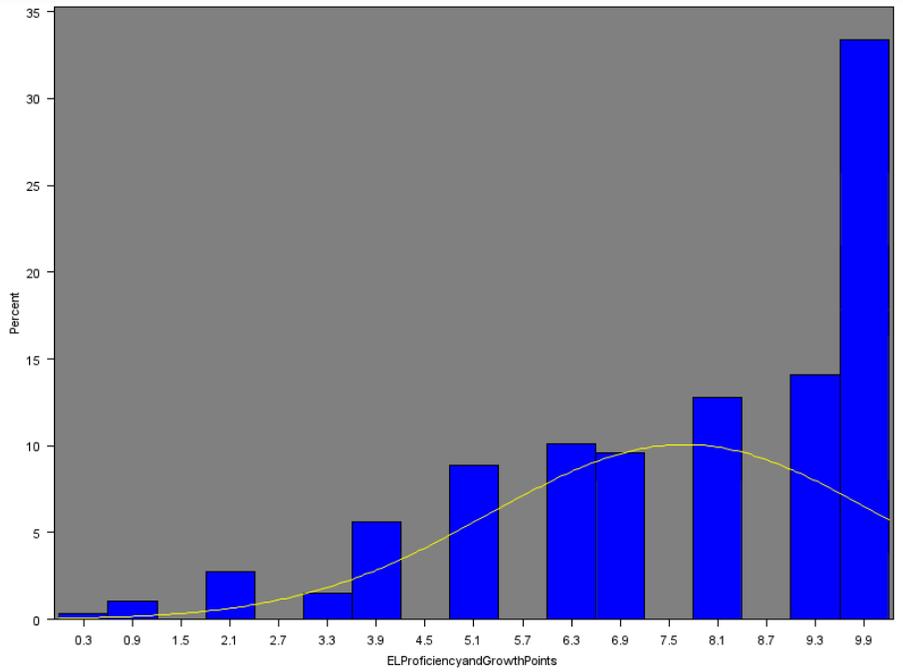## Distribution Analysis
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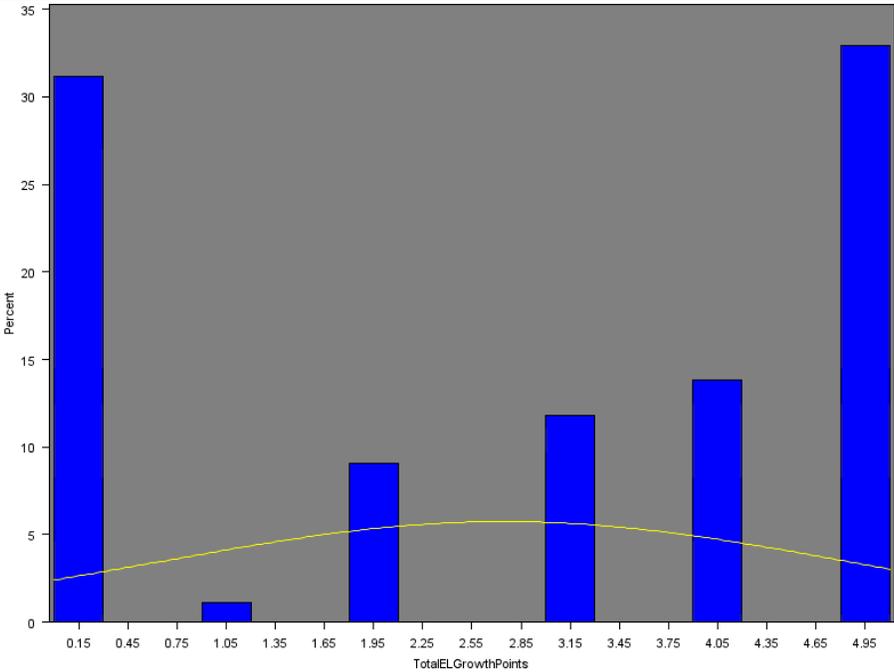
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Distribution Analysis
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Acceleration/Readiness

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

Metric	N-Size of 10 or more FAY students to be eligible	Points Available to Earn
Grades 5, 6, 7, 8 HS EOC Math		5
Grade 3 ELA Minimally Proficient	✓	5
Chronic Absenteeism	✓	2
Subgroup Improvement	✓ By subgroup	2 points per subgroup up to 6 points total
Special Education Inclusion	✓	2

Grades 5-8 HS EOC Math Increase

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

1. Increasing the percentage of students who take the test and pass HS EOC math
2. Maintaining a current and prior year percentage of 100%
3. The percent proficient on HS EOC math is greater than or equal to 25% for all current year FAY 8th grade students

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

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

$$CY\ Proficiency\ \% = 100 \left[\frac{(No.\ of\ CY\ Grades\ 5,6,7\ and\ 8\ FAY\ students\ that\ are\ P\ or\ HP\ on\ AzMERIT\ HS\ EOC\ Math)}{(Total\ CY\ FAY\ enrollment\ for\ Grades\ 5,6,7,and\ 8\ students\ that\ attempted\ an\ AzMERIT\ HS\ EOC\ Math)} \right]$$

x

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

$$PY\ Proficiency\ \% = 100 \left[\frac{(No.\ of\ PY\ Grades\ 5,6,7\ and\ 8\ FAY\ students\ that\ are\ P\ or\ HP\ on\ AzMERIT\ HS\ EOC\ Math)}{(Total\ PY\ FAY\ enrollment\ for\ Grades\ 5,6,7,and\ 8\ students\ that\ attempted\ an\ AzMERIT\ HS\ EOC\ Math)} \right]$$

xi

$$Grade\ 5\ to\ 8\ HS\ EOC\ Math\ \%\ Proficient\ Increase = (Grades\ 5,6,7\ and\ 8\ CY\ Proficiency\ \%) - (Grades\ 5,6,7\ and\ 8\ PY\ Proficiency\ \%)$$

Grade 8 HS EOC Math School Level

$$CY\ Proficiency\ \% = 100\left[\frac{(No.\ of\ CY\ Grade\ 8\ FAY\ students\ that\ are\ P\ or\ HP\ on\ AzMERIT\ HS\ EOC\ Math)}{(Total\ CY\ FAY\ enrollment\ for\ Grade\ 8)}\right]$$

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

Grades 5-8 HS EOC Math Points (0 or 5 points)
- A school's current year percentage of students who take the test and pass HS EOC math is greater than the school's prior year percentage of students who take the test and pass HS EOC math = 5 points
- A school's current year and prior year percentage of students who take the test and pass HS EOC math equals 100 = 5 points
- A school's current year Grade 8 percentage of students who pass a HS EOC math is greater than 25% = 5 points
- A school's current year percentage of students who take the test and pass HS EOC math is less than or equal to the school's prior year percentage of students who take the test and pass HS EOC math AND a school's current year Grade 8 percentage of students who pass a HS EOC math is less than 25% = 0 points

Grade 3 ELA Reduction in FAY Minimally Proficient

The intent of this metric is to reduce the percentage of grade 3 students who are minimally proficient on AzMERIT ELA from prior year to current year. To be eligible for these points, a school must meet the minimum N-Size of 10 FAY students. Schools can earn five points two different ways:
1. Decreasing the school's prior year percent minimally proficient
2. Have a current year percent minimally proficient less than 12%

Below are the formulas used to calculate the percentages:

Grade 3 ELA Current Year

$$Minimally\ Proficient\ \% = 100\left[\frac{(No.\ of\ CY\ Grades\ 3\ ELA\ FAY\ students\ who\ were\ MP)}{(Total\ CY\ Grade\ 3\ ELA\ FAY\ Students\ with\ a\ valid\ test\ score)}\right]$$

Grade 3 ELA Prior Year

$$Minimally\ Proficient\ \% = 100\left[\frac{(No.\ of\ PY\ Grades\ 3\ ELA\ FAY\ students\ who\ were\ MP)}{(Total\ PY\ Grade\ 3\ ELA\ FAY\ Students\ with\ a\ valid\ test\ score)}\right]$$

$$Grade\ 3\ ELA\ Reduction\ in\ FAY\ MP = (Grade\ E\ ELA\ CY\ MP\ \% - Grade\ 3\ ELA\ PY\ MP\ \%)$$

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

Grades 3 ELA Reduction Points (0 or 5 points)

- A school's current year minimally proficient percentage is less than the school's prior year minimally proficient percentage = 5 points
- A school's current year minimally proficient percentage is less than 12% = 5 points
- A school's current year minimally proficient percentage is greater than or equal to the school's prior year minimally proficient percentage = 0 points

Reduction in Chronic Absenteeism

The intent of this metric is to reduce the school's chronic absenteeism percentage from prior year to current year. This calculation includes grades K-8 students. All absences reported for a student whether excused or unexcused are included.[xii] To be eligible for these points, a school must meet the minimum N-Size of 10 students. Schools can earn two points two different ways:

1. Decreasing the school's prior year chronic absenteeism percentage
2. Have a current year chronic absenteeism percentage less than 4%

Below are the formulas used to calculate the percentages:

$$CY\ Chronic\ Absenteeism\ \% = 100 \left[\frac{(No.\,of\ CY\ students\ who\ have\ greater\ than\ 10\%\ absences)}{(Total\ CY\ students)} \right]$$

$$PY\ Chronic\ Absenteeism\ \% = 100 \left[\frac{(No.\,of\ PY\ students\ who\ have\ greater\ than\ 10\%\ absences)}{(PY\ year\ students)} \right]$$

$$Chronic\ Absenteeism\ Reduction = (CY\ Chronic\ Absenteeism\ \% - PY\ Chronic\ Absenteeism\ \%)$$

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

Reduction in Chronic Absenteeism Points (0 or 2 points)
- A school's current year chronic absenteeism percentage is less than the school's prior year chronic absenteeism percentage = 2 points
- A school's current year chronic absenteeism percentage is less than 4% = 2 points
- A school's current year chronic absenteeism percentage is greater than or equal to the school's prior year chronic absenteeism percentage = 0 points

Subgroup Improvement

The intent of this metric is to see annual improvement in subgroup (SG) proficiency in AzMERIT ELA and Math. The following subgroups are evaluated by test subject (ELA, Math):
1. White
2. Hispanic
3. Native American/Alaskan Indian
4. Asian
5. African American
6. Pacific Islander
7. Two or More Races
8. English Learner
9. Special Education
10. Economically Disadvantaged

To be eligible, each subgroup must have a least 10 FAY students at the school level. The n-count must be met in both the current year and previous year.[xiii] If a school meets the N-Size for all subgroups, they'd have 20 chances (10 subgroups times 2 subjects) to earn up to 6 points with each subgroup worth 2 points.

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

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

$$SG\ PY\ Proficiency\ \% = 100 \left[\frac{\begin{array}{l}((No.\ of\ PY\ FAY\ students\ in\ the\ SG\ that\ are\ PP\ on\ AzMERIT\ or\ MSAA)0.6) \\ +((No\ of\ PY\ FAY\ students\ in\ the\ SG\ that\ are\ P\ on\ AzMERIT\ or\ MSAA)1.0) \\ +((No.\ of\ PY\ FAY\ students\ in\ the\ SG\ that\ are\ HP\ on\ AzMERIT\ or\ MASS)1.3)\end{array}}{(Total\ PY\ FAY\ students\ in\ the\ SG\ who\ took\ the\ test)} \right]$$

$$SG\ Improvement = (SG\ CY\ Proficiency\ \% - SG\ PY\ Proficiency\ \%)$$

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

Subgroup Improvement Points (Up to 6 points; each subgroup and subject is worth 2 points)
- Each subgroup and subject is evaluated separately
- If eligibility is met:
    - A school's subgroup current year proficiency percentage is greater than the school's subgroup prior year proficiency percentage = 2 points
    - A school's current year subgroup proficiency percentage is less than or equal to the school's subgroup prior year proficiency percentage = 0 points

Special Education Inclusion

The intent of this metric is to reward schools that have greater than the state average 8.3%[xiv] of special education (SPED) students in general education classroom at least 80% of the day. This calculation includes grades K-8 students. To be eligible for these points, a school must meet the minimum N-Size of 10 FAY students.

$$School\ Level\ FAY\ SPED\ Inclusion\ \% \\ = \frac{No.\ of\ FAY\ SPED\ students\ spending\ 80\%\ of\ more\ of\ their\ day\ in\ the\ general\ education\ classroom}{(Total\ CY\ FAY\ enrollment)}$$

Special Education Inclusion Points (0 or 2 points)
- Schools with 8.3% or more of their FAY population in special education and with students in special education spending 80%+ of their day in the general education classroom receive points
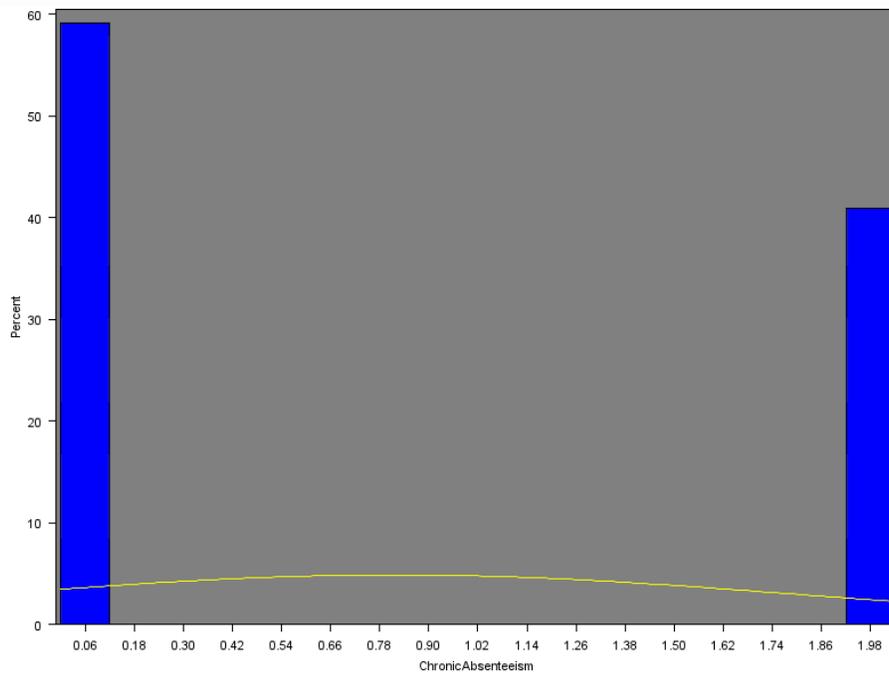
Statistics and Graphs Acceleration Readiness

Summary K-8 EL Tables

	ChronicAbsenteeism	Grade3ELAMP	Grades58HSEOC	SpecialEducationInclusion	BONUS_SCI_ES	SubgroupImprovement	TotalARPoints
Max	2.00	5.00	5.00	2.00	3.00	6.00	10.00
Mean	0.82	2.62	4.82	1.11	0.98	5.49	8.61
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Range	2.00	5.00	5.00	2.00	3.00	6.00	10.00
StdDev	0.98	2.50	0.94	0.99	1.15	1.31	2.25
StdErr	0.03	0.07	0.04	0.03	0.03	0.03	0.06
Var	0.97	6.24	0.89	0.99	1.32	1.71	5.06
Median	0.00	5.00	5.00	2.00	0.00	6.00	10.00
Q1	0.00	0.00	5.00	0.00	0.00	6.00	8.00
Q3	2.00	5.00	5.00	2.00	1.50	6.00	10.00
P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P5	0.00	0.00	5.00	0.00	0.00	2.00	4.00
P10	0.00	0.00	5.00	0.00	0.00	4.00	6.00
P90	2.00	5.00	5.00	2.00	3.00	6.00	10.00
P95	2.00	5.00	5.00	2.00	3.00	6.00	10.00
P99	2.00	5.00	5.00	2.00	3.00	6.00	10.00

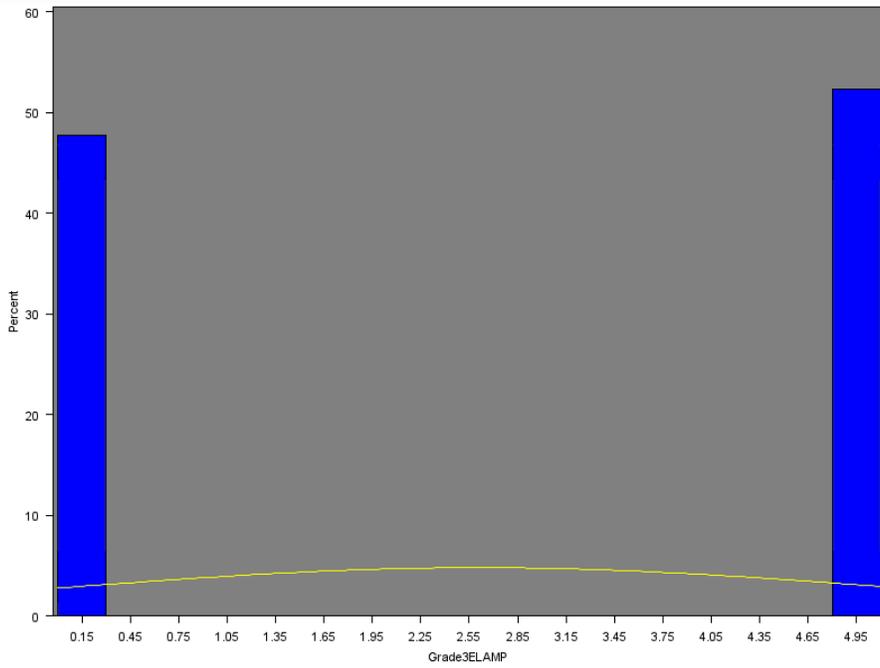ADE Accountability & Research on December 26, 2018 at 8:50:35 AM

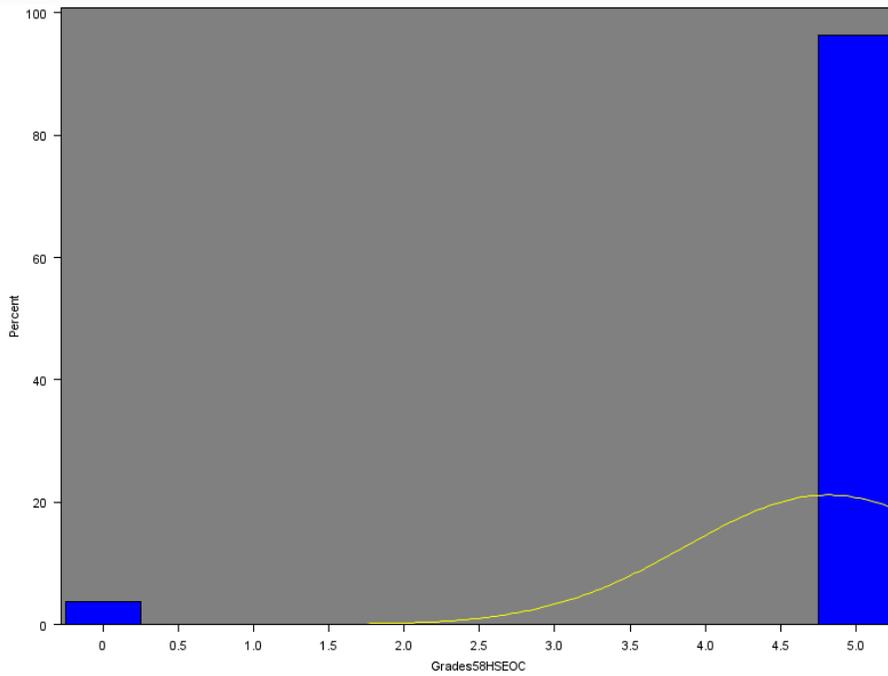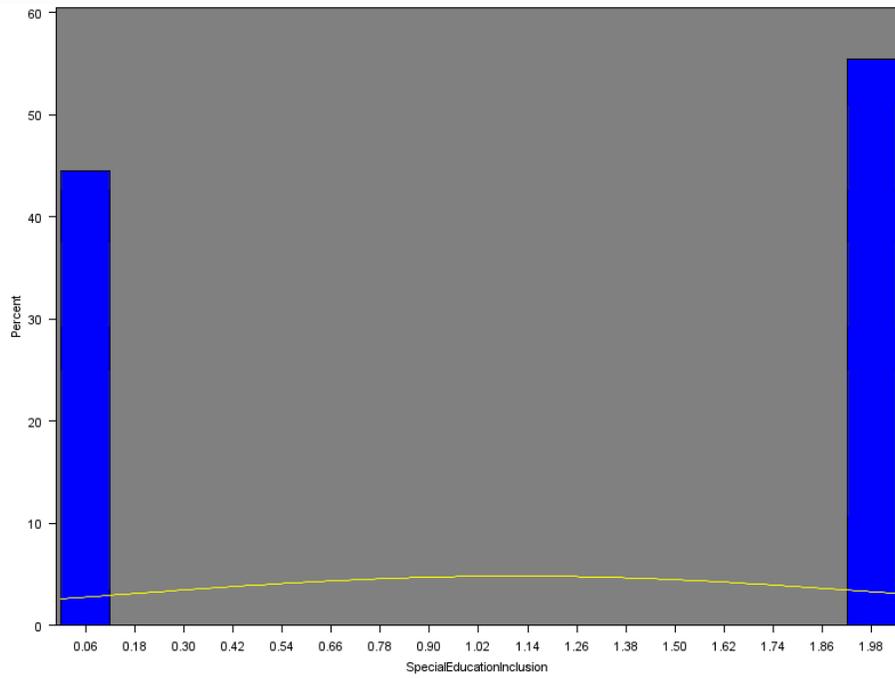**Distribution Analysis**
The UNIVARIATE Procedure

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Distribution Analysis

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45

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46

Distribution Analysis
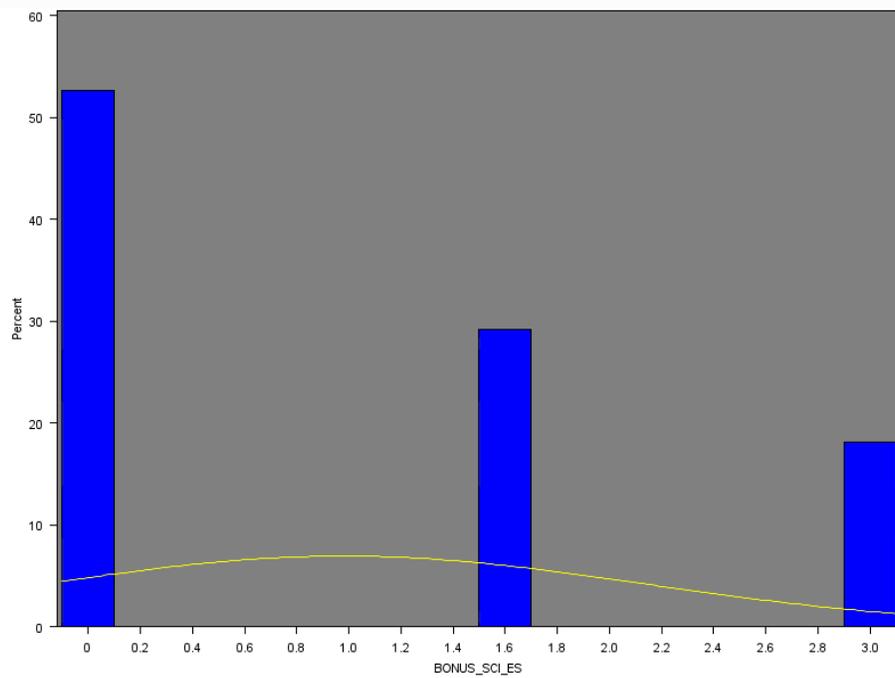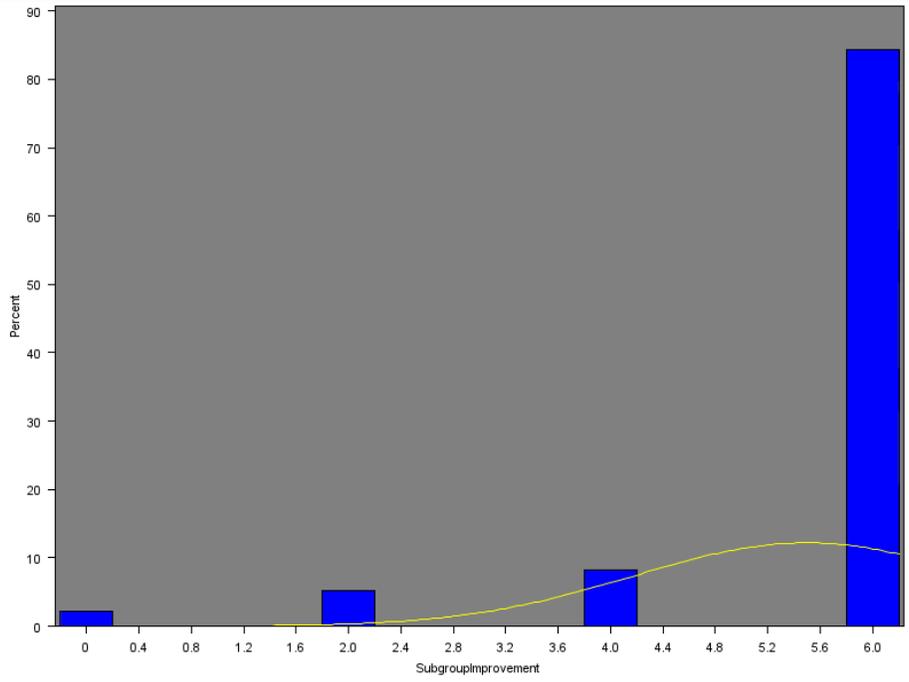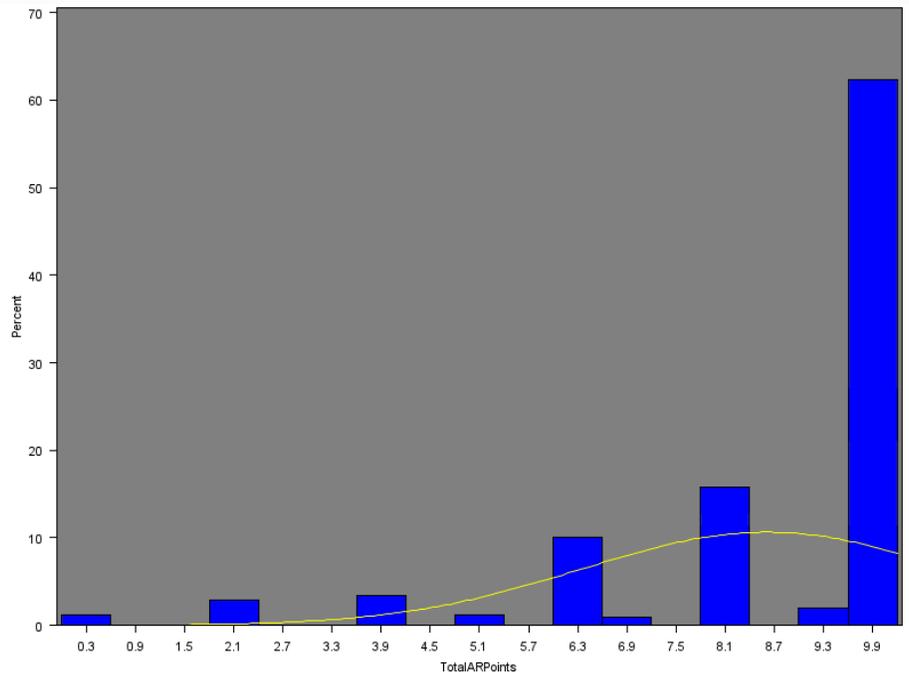### The UNIVARIATE Procedure

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Distribution Analysis
The UNIVARIATE Procedure

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47

Bonus Points

Schools can earn bonus points two different ways.

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 (11.48%[xv]) to receive the bonus points.

The following formulas are used for the calculations:

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

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

$$\textbf{80}\%\ \textbf{of Statewide } \% \ = 80\%(Statewide\ CY\ FAY\ SPED\ Program\ Enrollment\ \%)$$

$$\textbf{FAY SPED Program Enrollment Bonus Point} = (School\ Level\ CY\ FAY\ SPED\ Program\ Enrollment\ \%\ -\ 80\%\ of\ Statewide\ \%)$$

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:

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

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 80.8% = 3 points
- A school's current year percentage of proficient students is less than 80.8% and greater than 59.52%[xvi] = 1.5 points
-

Statistics and Graphs Bonus Points

Summary K-8 Bonus Point Tables

	Bonus_SPED_K8	BONUS_SCI_K8	TotalBonusPoints
Max	2.00	3.00	5.00
Mean	1.37	0.95	2.32
Min	0.00	0.00	0.00
Range	2.00	3.00	5.00
StdDev	0.93	1.15	1.33
StdErr	0.02	0.03	0.03
Var	0.86	1.31	1.77
Median	2.00	0.00	2.00
Q1	0.00	0.00	2.00
Q3	2.00	1.50	3.50
P1	0.00	0.00	0.00
P5	0.00	0.00	0.00
P10	0.00	0.00	0.00
P90	2.00	3.00	3.50
P95	2.00	3.00	5.00
P99	2.00	3.00	5.00

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Distribution Analysis
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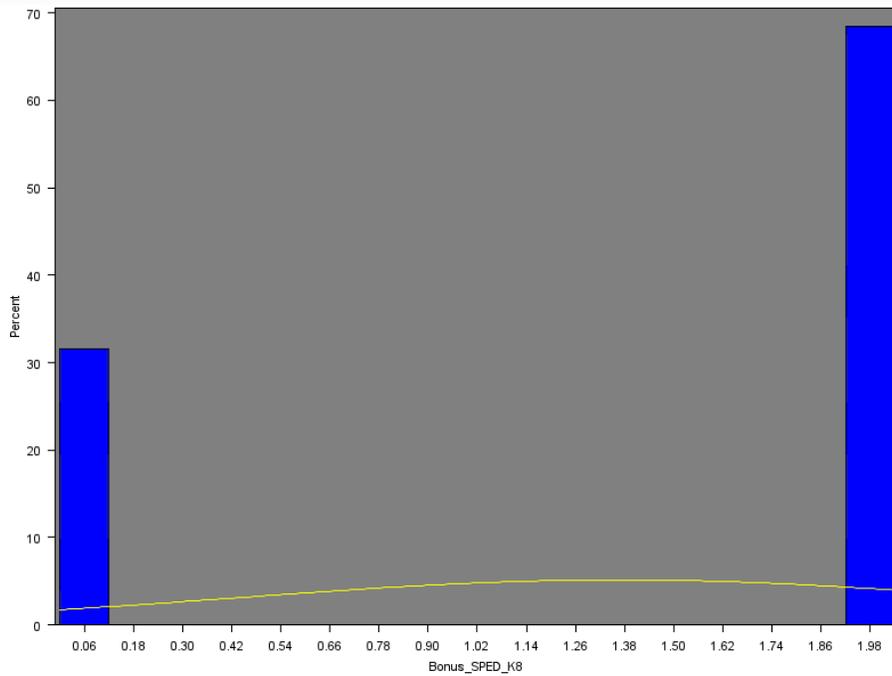
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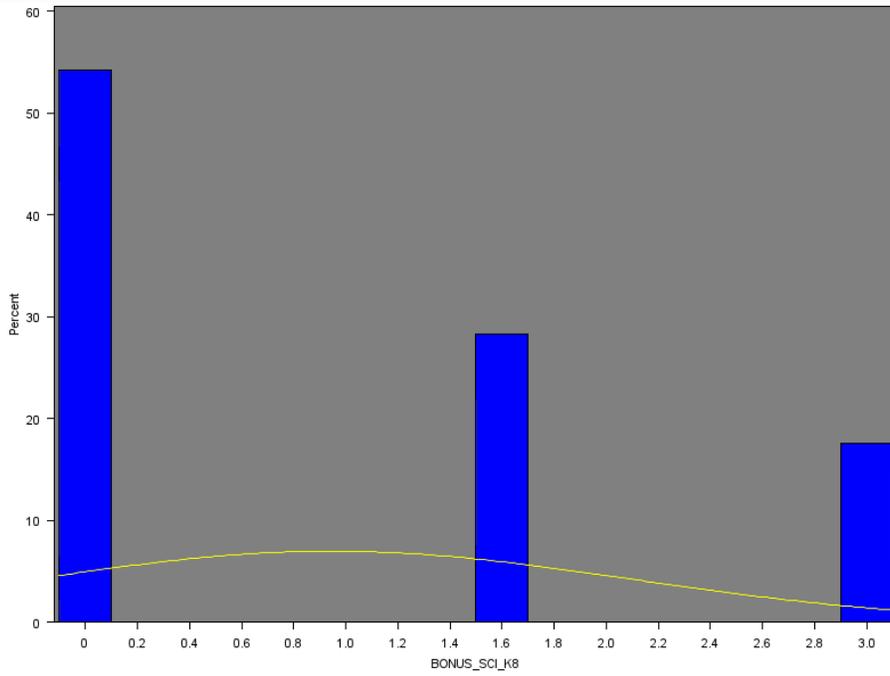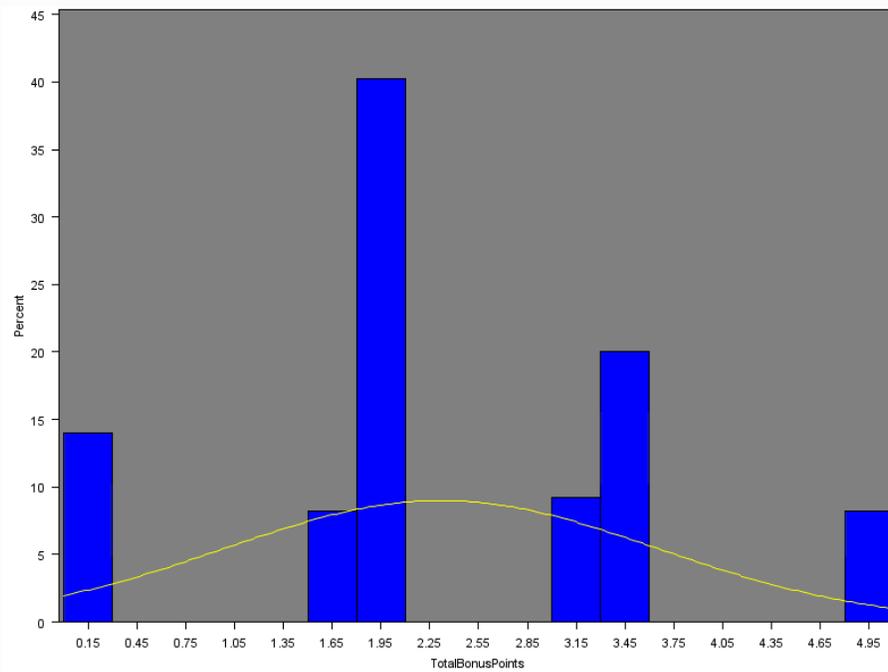### The UNIVARIATE Procedure

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Distribution Analysis
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Calculating Total Points[xvii]

Schools that meet the N-Size for every indicator can earn up to 100 points:

$$Letter\ Grade = \begin{bmatrix} (0.30(Proficiency)) + (0.50(Growth)) + (EL\ Proficient\ Points) \\ +(EL\ Growth\ Points) + (Acceleration - Readiness\ Points) \end{bmatrix} + \text{Bonus Points}$$

[xviii]

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

$$Letter\ Grade = 100 \left(\frac{\begin{bmatrix} (0.30(Proficiency)) + (0.50(Growth)) \\ +(Acceleration - Readiness\ Points) \end{bmatrix} + \text{Bonus Points}}{90} \right)$$

[xix]

Schools that do not meet the N-Size EL Proficiency and Growth and do not qualify for any acceleration/readiness indicators (i.e., do not meet the N-Size of 10 FAY students or is not eligible) can earn up to 80 points:

$$Letter\ Grade = 100 \left(\frac{[(0.30(Proficiency)) + (0.50(Growth))] + \text{Bonus Points}}{80} \right)$$

[xx]

Schools without enough students to be eligible for 80 points will be not rated in FY18.

Statistics and Total Points

Summary Total Points Tables

	Percentage Earned
Max	105.13
Mean	75.13
Min	24.93
Range	80.20
StdDev	14.12
StdErr	0.37
Var	199.36
Median	75.75
Q1	65.45
Q3	86.00
P1	38.73
P5	51.43
P10	56.86
P90	93.29
P95	96.63
P99	100.88

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Distribution analysis of: Percentage Earned
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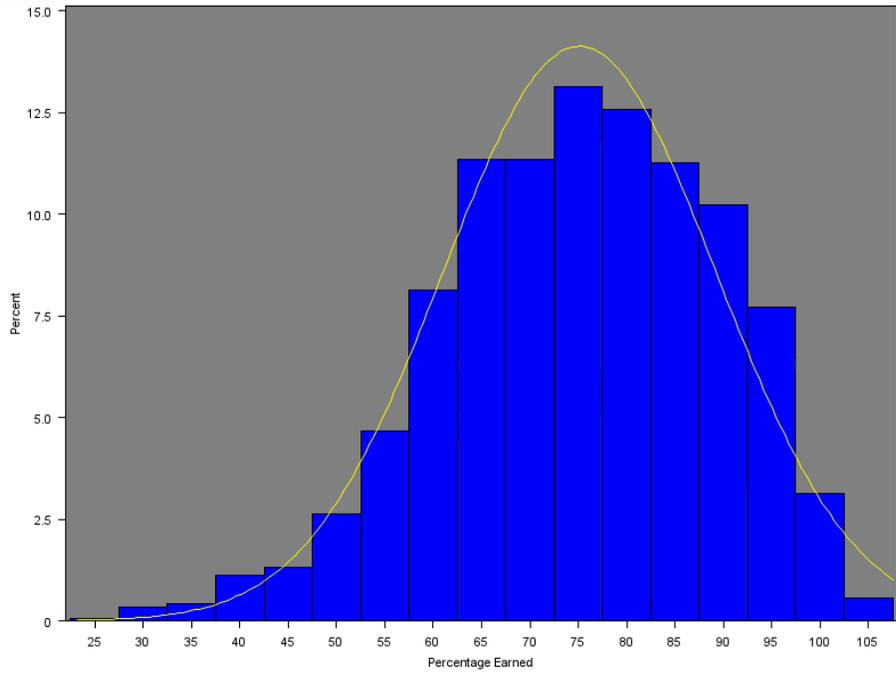
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9-12 Model

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

The 9-12 model is based on a scale of 0-100 points for schools that have all available indicators; the scale is adjusted for those indicators that do not meet the N-Size. All indicators must have a minimum of 10 FAY students to count with the exception of special education enrollment bonus points and science proficiency bonus points. 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 2018 AzMERIT or MSAA ELA, Math scores are utilized for grades 9-12 FAY students. Schools must have a minimum of 10 FAY students to be eligible for points. Unlike the K-8 model, only 1-year FAY is utilized. If a student took the same assessment twice, the higher score is utilized. Both fall and spring assessments are utilized. Invalid test records count as not tested. Proficiency points are capped at 30. The achievement levels are weighted such that students scoring highly proficient earn the most points (see below).

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

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 enrollment Grade 10 students from the current year.

Step 2: Pull AzMERIT assessment data for FY15, FY16, FY17, and FY18.

Step 3: Merge the assessment data results to the list of 10th graders.

Step 4: Determine if the student took a Math or ELA assessment.

- If the student took any Math HS EOC (i.e., Algebra 1, 2, or Geometry) over the last four years of AzMERIT data then the student counts as tested in Math.
- If the student took any ELA HS EOC (i.e., ELA Grade 9, ELA Grade 10, or ELA Grade 11) over the last four years of AzMERIT data then the student counts as tested in ELA.

The below formula is used:

$$\textbf{Grades } 9-12 \% \textbf{ Tested} = 100 \left[\frac{\begin{array}{l} 0.5\,((No.\,CY\,Grade\,10\,students\,tested\,at\,least\,once\,in\,ELA\,over\,the\,last\,4\,years) \\ +(No.\,of\,CY\,Grade\,10\,students\,tested\,at\,least\,once\,in\,math\,over\,the\,last\,4\,years)) \end{array}}{(No.\,of\,Grade\,10\,students)} \right]$$

If the school does not have a Grade 10 then the calculation will use the FAY Grade 9 students. For schools serving only Grades 11-12, the calculation will use the FAY Grade 11 students.

Percent Proficient for Schools that Meet 95% Tested

$$\% \textbf{ Proficient for Schools Meeting } 95\% \textbf{ Tested}$$
$$= 100 \left(\frac{\begin{array}{l} ((No.\,of\,FAY\,students\,PP\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,PP\,on\,AzMERIT\,or\,MSAA\,Math)0.6) \\ +((No.\,of\,FAY\,students\,P\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,P\,on\,AzMERIT\,or\,MSAA\,Math)1.0) \\ +((No.\,of\,FAY\,students\,HP\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,HP\,on\,AzMERIT\,or\,MSAA\,Math)1.3) \end{array}}{No.\,of\,FAY\,students\,tested\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,tested\,on\,AzMERIT\,or\,MSAA\,Math} \right)$$

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 95students 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

$$\% \textbf{ Proficient for Schools DO NOT Meet } 95\% \textbf{ Tested}$$
$$= 100 \left(\frac{\begin{array}{l} ((No.\,of\,FAY\,students\,PP\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,PP\,on\,AzMERIT\,or\,MSAA\,Math)0.6) \\ +((No.\,of\,FAY\,students\,P\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,P\,on\,AzMERIT\,or\,MSAA\,Math)1.0) \\ +((No.\,of\,FAY\,students\,HP\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,HP\,on\,AzMERIT\,or\,MSAA\,Math)1.3) \end{array}}{\begin{array}{c} (No.\,of\,FAY\,students\,tested\,on\,AzMERIT\,or\,MSAA\,ELA + No.\,of\,FAY\,students\,tested\,on\,AzMERIT\,or\,MSAA\,Math) \\ +(No.\,of\,Students\,needed\,to\,Meet\,95\%\,tested) \end{array}} \right)$$

Statistics and Graphs for Profiency and 95% Tested

Summary Tables

	PercentTested	PercentProficientAllStudents	proficiency
Max	1.00	120.77	30.00
Mean	0.82	49.05	14.89
Min	0.00	0.00	0.18
Range	1.00	120.77	29.82
StdDev	0.28	25.97	7.19
StdErr	0.01	1.35	0.38
Var	0.08	674.23	51.68
Median	0.94	46.31	14.05
Q1	0.86	31.57	9.73
Q3	0.97	66.72	20.10
P1	0.00	0.00	0.49
P5	0.02	6.14	3.69
P10	0.33	18.44	6.71
P90	0.99	83.93	25.30
P95	1.00	98.51	29.55
P99	1.00	117.36	30.00

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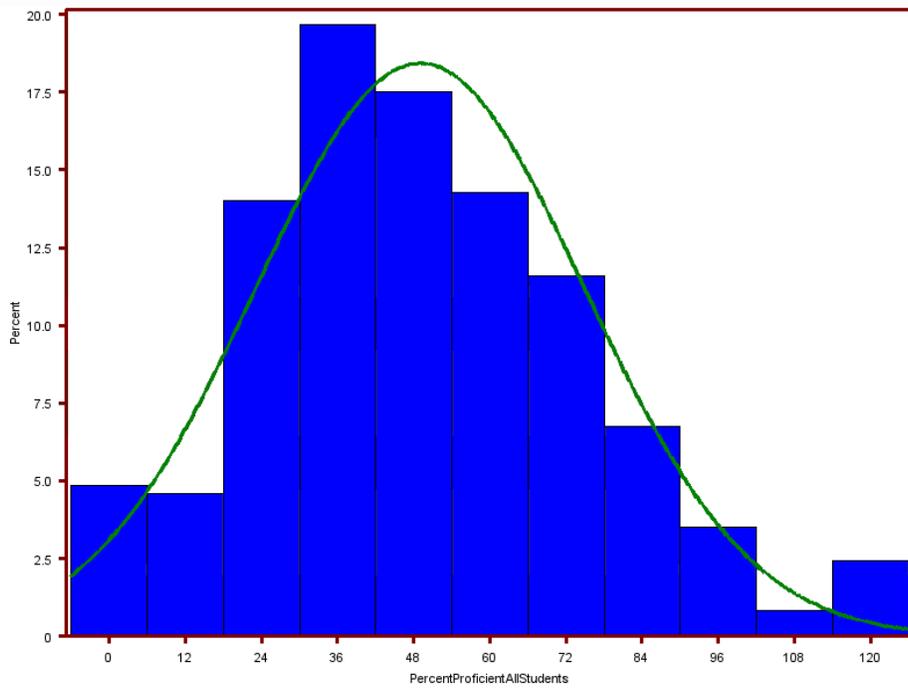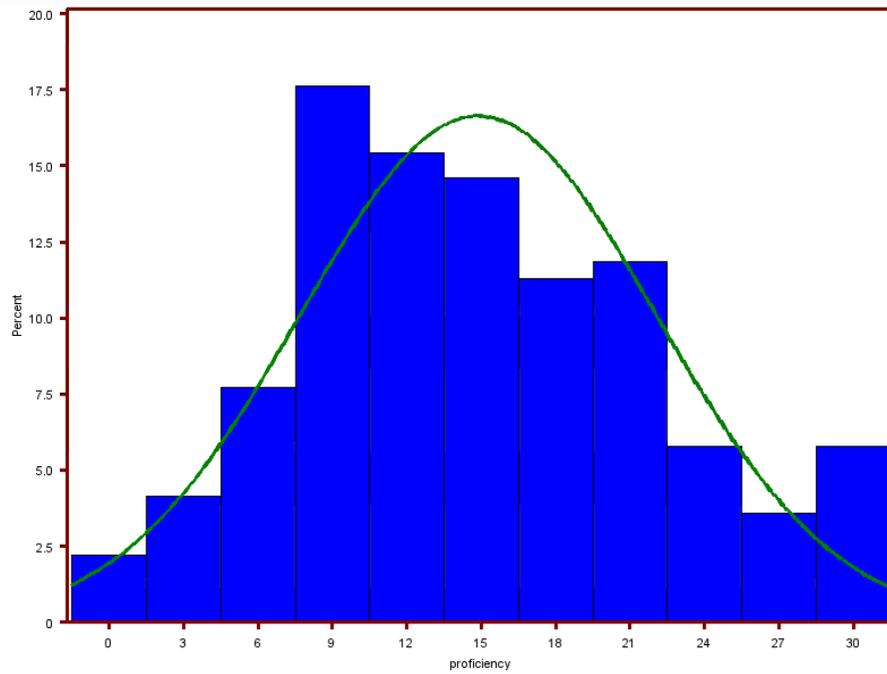**The UNIVARIATE Procedure**
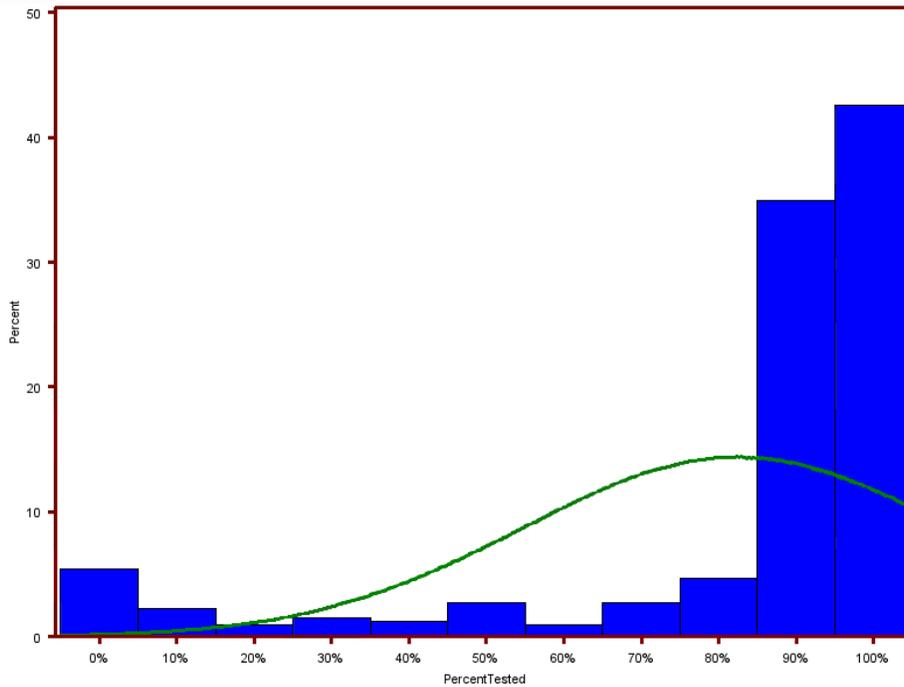
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Distribution Analysis

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Distribution Analysis

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Growth Model

The same growth models used in K-8 are used in 9-12. Growth results are worth 20% of a 9-12 school's letter grade. Schools must have a minimum of 10 FAY students with an SGP and SGT in each subject, ELA and Math, to be eligible for growth points. Thus, SGP for ELA is worth 5%, SGP for Math is worth 5%, SGT for ELA is worth 5%, and SGT for Math is worth 5%. Math growth points (SGP + SGT) are capped at 10 and ELA growth points (SGP + SGT) are capped at 10, thus making growth points capped at 20. Both fall and spring assessments are utilized. For more details on the calculations, see pages 16-23.

SGP

To receive an SGP in English Language Arts, a student must take the test appropriate for the grade he/she is enrolled in. For example, a student in Grade 11 who took the ELA Grade 11 test will receive an SGP. For Mathematics, a student in high school must take any of the high school math end-of-course tests to receive an SGP. Students who take the same test for two consecutive years are not assigned an SGP. Math EOC SGP and SGT were modeled If there were more than 2000 test records sharing the same growth trajectory in the three years from 2016 to 2018, which include those accelerating students who took Algebra I right after they took the math test for grade 7 in the prior year.

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

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

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

Current-Year Student Growth Percentile			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	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:

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

SGT

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

To evaluate a school's status in keeping its students on track towards being proficient, the state utilizes only four of the six student growth targets outlines on page 21, the SGT (or the sufficient growth) for minimally proficient students to be on track to proficiency, the SGT (or the sufficient growth) for partially proficient students to be on track to proficiency, the SGT (or the sufficient growth) for proficient students to be on track to remain proficient, the SGT (or the sufficient growth) for highly proficient students to be on track to remain proficient. The percentage of FAY students in each category is calculated at the school level across all grades but separately for each subject (English Language Arts and Mathematics). These percentages are weighted in the following ways:

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

Current-Year Student Growth Target			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	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
	<10 percentile points of target	+/- 10 percentile points of target	>10 percentile points of target
	Below Target	At or Near Target	Exceeds Target

$$\text{The SGT points of a school for each subject} = \begin{pmatrix} (\% \text{ of PY MP FAY students who made high growth } x2.00) \\ +(\% \text{ of PY PP FAY students who made high growth } x1.80) \\ +(\% \text{ of PY P FAY students who made high growth } x\ 1.20) \\ +(\% \text{ of PYHP FAY who made high growth } x\ 1.00) \\ +(\% \text{ of PY } (MP + PP + P + HP) \text{who made average growth}) \end{pmatrix}$$

$$\textbf{Total Growth Points} = 100(((0.05x(SGP\ Math) + +0.05x(SGT\ Math)) + (0.05x(SGT\ ELA)0.05x(SGP\ ELA)))$$
$$\textbf{Total Growth Max Points} = (Math\ max\ points\ 10) + (ELA\ max\ points\ 10)$$

Statistics and Graphs for Growth

Summary Tables

	SGP_ELA	SGPELAPoints	SGT_ELA	SGTELAPoints	SGP_math	SGPMathPoints	SGT_math	SGTMathPoints	GrowthPoints_912
Max	149.22	7.46	128.93	6.45	165.00	8.25	111.56	5.58	20.00
Mean	93.75	4.69	52.69	2.63	88.25	4.41	46.53	2.33	14.36
Min	58.83	2.94	0.00	0.00	31.62	1.58	0.00	0.00	6.36
StdDev	15.02	0.75	23.10	1.15	16.78	0.84	22.34	1.12	2.76
StdErr	0.83	0.04	1.27	0.06	0.93	0.05	1.26	0.06	0.15
Range	90.39	4.52	128.93	6.45	133.38	6.67	111.56	5.58	13.64
Var	225.56	0.56	533.50	1.33	281.55	0.70	499.09	1.25	7.60
Median	92.59	4.63	48.13	2.41	88.35	4.42	45.13	2.26	14.37
Q1	83.62	4.18	36.95	1.85	77.70	3.89	28.42	1.42	12.30
Q3	102.66	5.13	64.90	3.25	97.45	4.87	62.40	3.12	16.40
P1	62.31	3.12	9.86	0.49	49.37	2.47	4.47	0.22	9.35
P5	71.82	3.59	19.94	1.00	61.88	3.09	12.96	0.65	10.12
P10	75.54	3.78	26.60	1.33	68.80	3.44	18.77	0.94	10.77
P90	112.70	5.63	87.36	4.37	110.96	5.55	74.96	3.75	18.28
P95	121.89	6.09	101.41	5.07	115.83	5.79	86.66	4.33	19.08
P99	136.00	6.80	107.29	5.36	126.94	6.35	98.50	4.93	19.98

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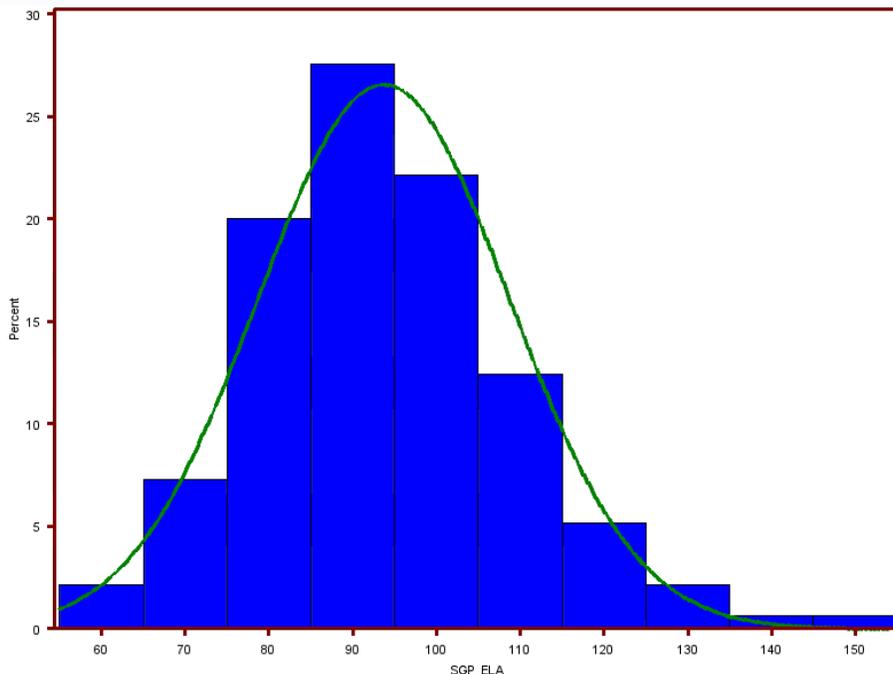
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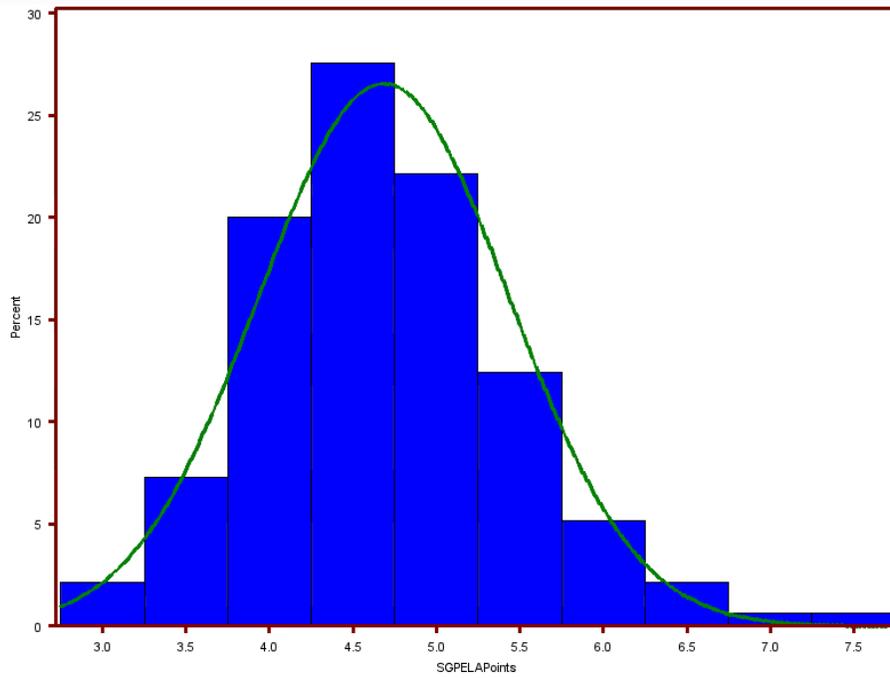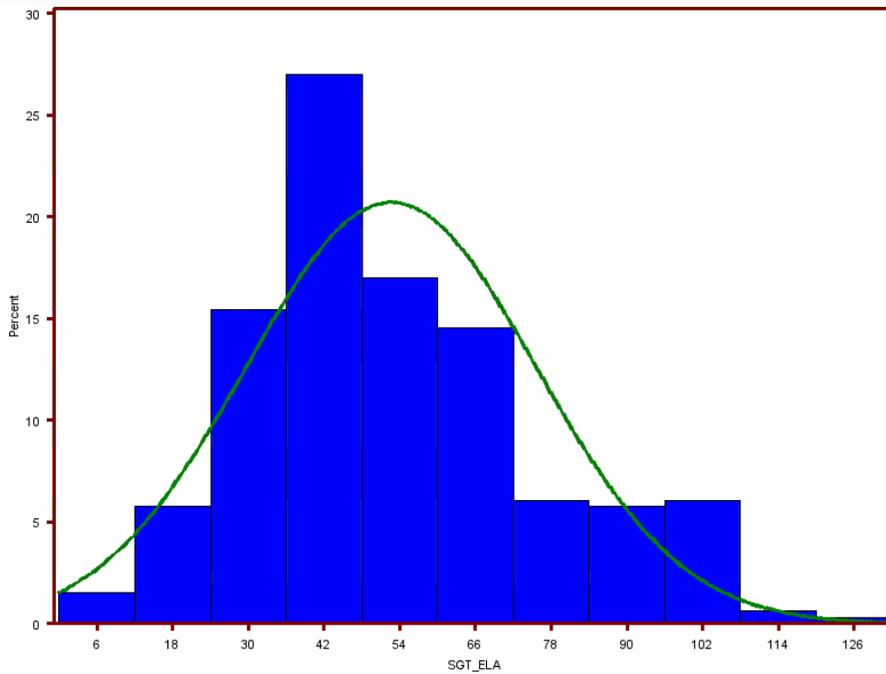
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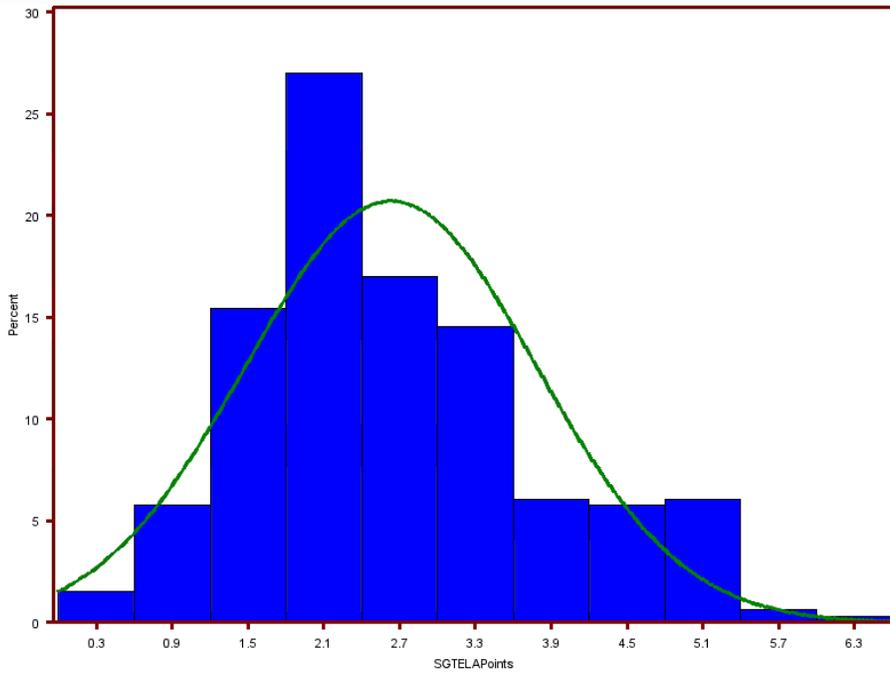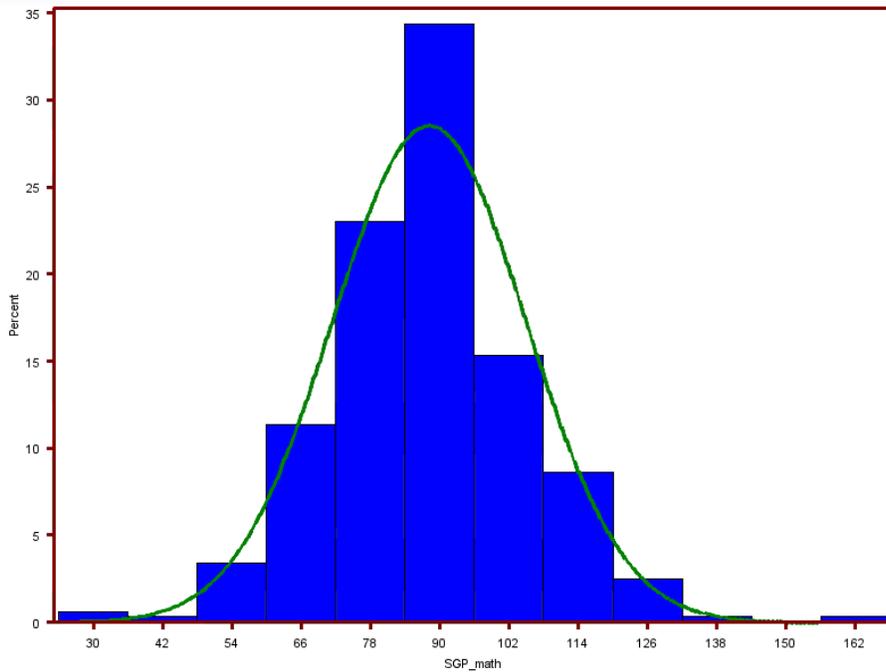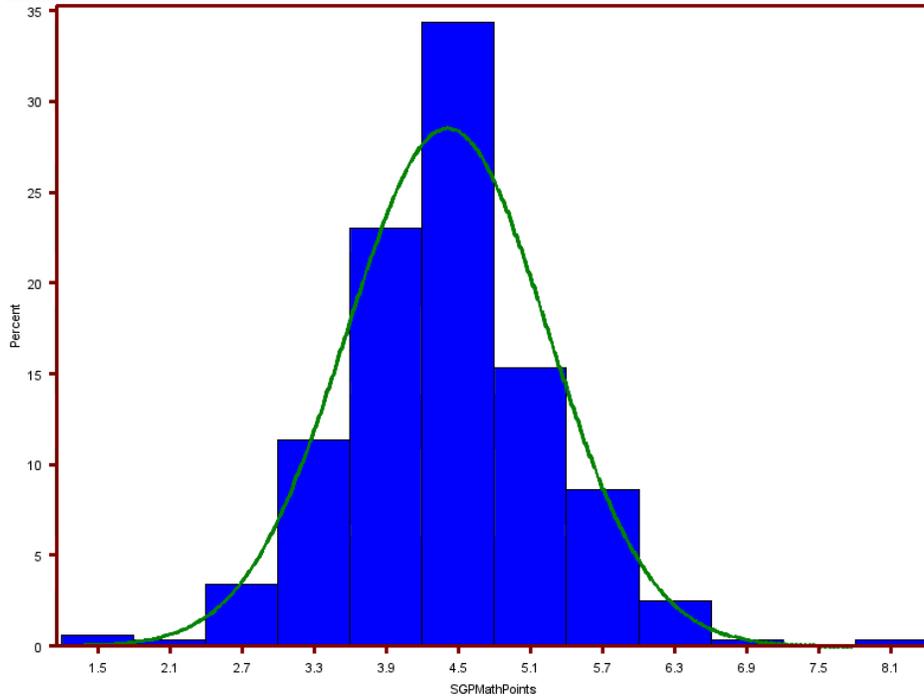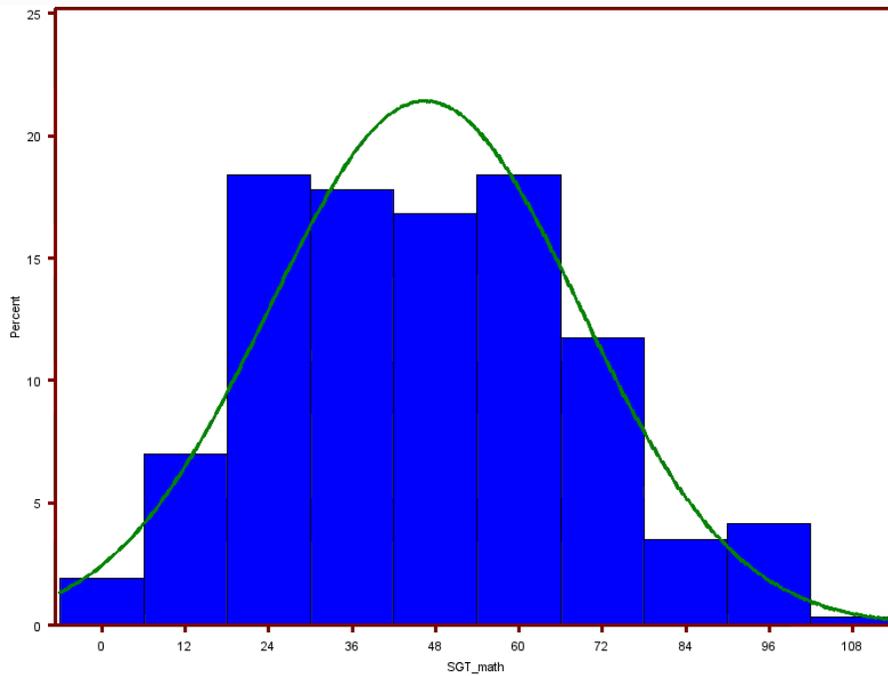
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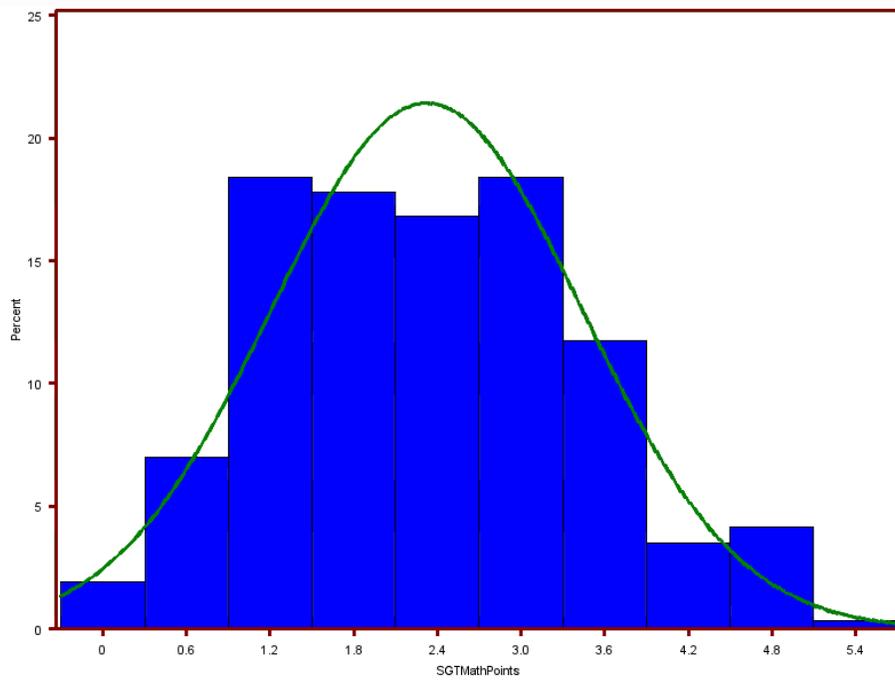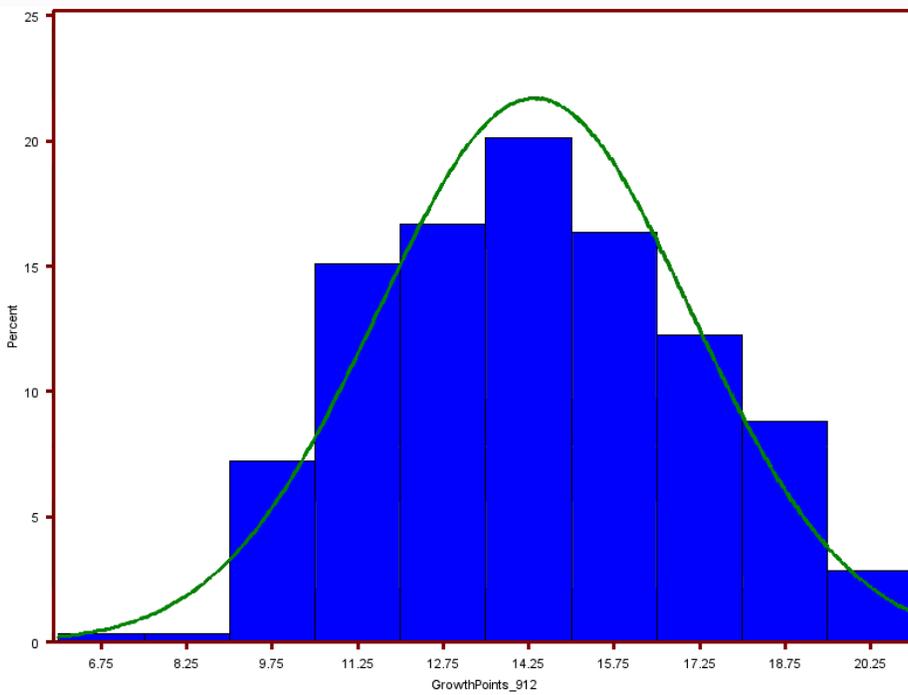The UNIVARIATE Procedure

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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 students must also be FAY on AZELLA. To be included in the EL growth calculations, two test records are required. Invalid test records count as not tested. Schools with less than 10 FAY EL students are not eligible for these points. EL proficiency calculates the proficiency percentage of EL students. The following formula is used.

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

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

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

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

TRANSFORMED	Range	Points
EL Proficiency is greater than or equal to the EL Statewide Current Year Percent Proficient	≥ 0.2348	5
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -0.01 and -0.50	0.1771 to 0.2347	4
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -0.51 and -1.00	0.1194 to 0.1770	3
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -1.01 and -2.00	0.0001 to 0.1193	2
EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -2.01 and -3.00[xxii]	N/A	1
If a school's EL Proficiency is 0%, due to no reclassification	0.0000	0

[1]The cut score ranges were limited to extending four decimal places. In limited cases this may mean some schools scores will not fit exactly in one of the ranges, as presented in this file.

[2]Cut scores were calculated using SAS version 9.4[xxiii]

EL growth calculates the growth percentage of EL students using their current year compared to prior year AZELLA results. An student who is takes a placement exam for the first time by October 1st and then takes a spring reassessment will be included.[xxiv] 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 FAY.

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

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

The following formula is used to calculate growth:

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

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

$$EL\ 9-12\ Statewide\ Current\ Year\ Growth\ Percent$$
$$= 100\left[\frac{\begin{pmatrix}(No.\ of\ FAY\ students\ who\ increased\ one\ proficiency\ level)\\ +(No.\ of\ FAY\ student\ who\ increased\ twoproficiencylevels\ x\ 2.0)\\ +(No.\ of\ FAY\ students\ who\ increased\ three\ proficiency\ levels\ X\ 3.0)\end{pmatrix}}{No.\ of\ FAY\ students\ tested\ with\ an\ EL\ need,\ including\ parent\ withdrawals\ with\ a\ valid\ current\ and\ prior\ year\ AZELLA\ proficiency\ level}\right]$$

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

TRANSFORMED	Range	Points
EL Growth is greater than or equal to the EL Statewide Current Year Percent Growth	≥ 0.5074	5
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -0.01 and -0.50	0.4163 to 0.5073	4
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -0.51 and -1.00	0.3253 to 0.4162	3
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -1.01 and -2.00	0.1432 to 0.3252	2
EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -2.01 and -3.00[xxvi]	0.0001 to 0.1431	1
If a school's EL Growth is 0%, due to no Growth	0.0000	0

[1]The cut score ranges were limited to extending four decimal places. In limited cases this may mean some schools scores will not fit exactly in one of the ranges, as presented in this file. [2]Cut scores were calculated using SAS version 9.4[xxvii]

Statistics and Graphs for EL

Summary Tables

	Hs_grow_points	TotalELProficiencyPoints	ELProficiencyandGrowthPoints
Max	5.00	5.00	10.00
Mean	3.95	3.46	7.41
Min	0.00	0.00	0.00
Range	5.00	5.00	10.00
StdDev	1.34	1.62	2.64
StdErr	0.11	0.13	0.22
Var	1.79	2.62	6.97
Median	5.00	4.00	8.00
Q1	3.00	3.00	6.00
Q3	5.00	5.00	10.00
P1	0.00	0.00	0.00
P5	2.00	0.00	2.00
P10	2.00	0.00	3.00
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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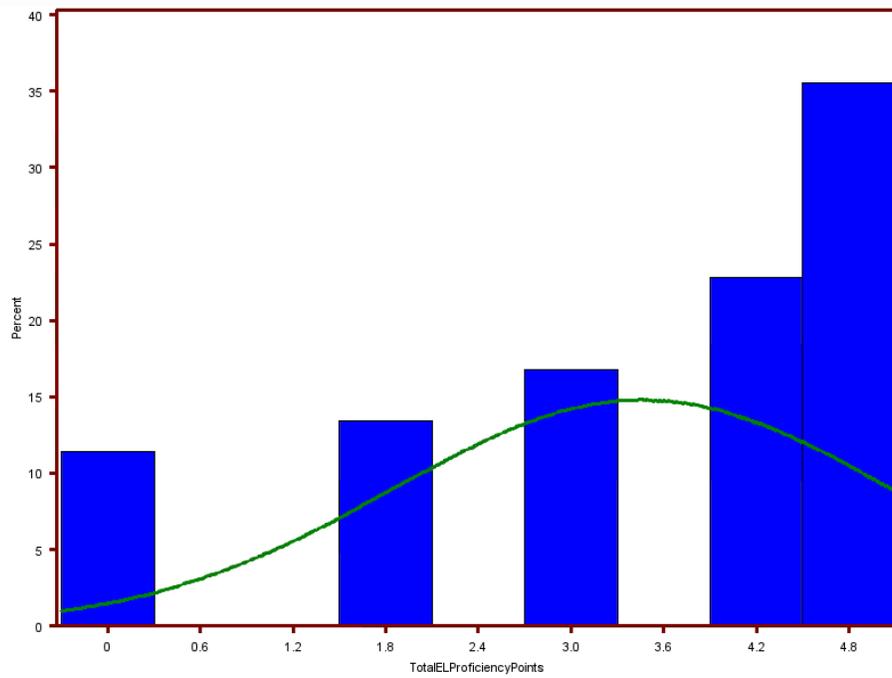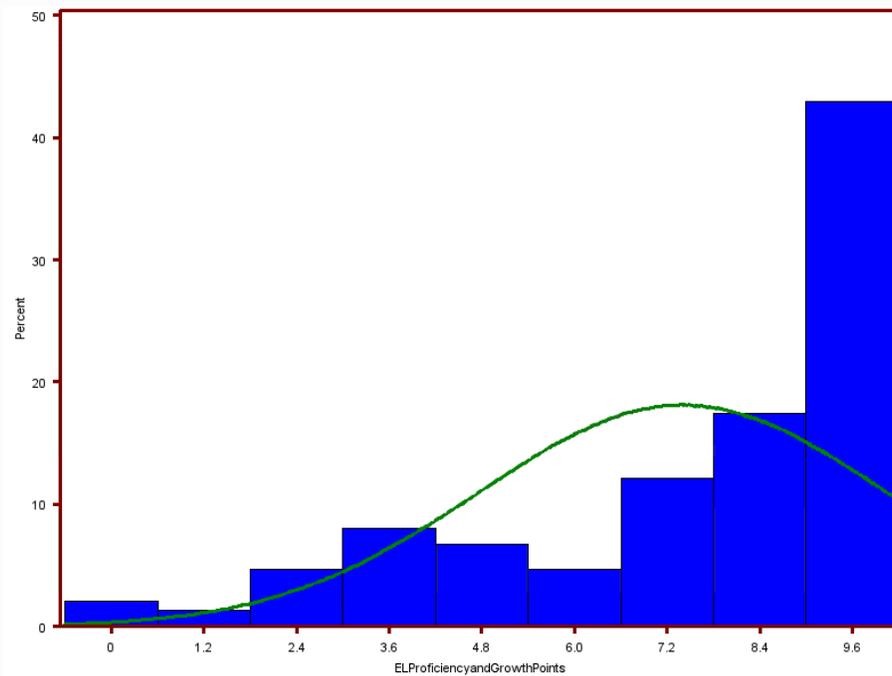

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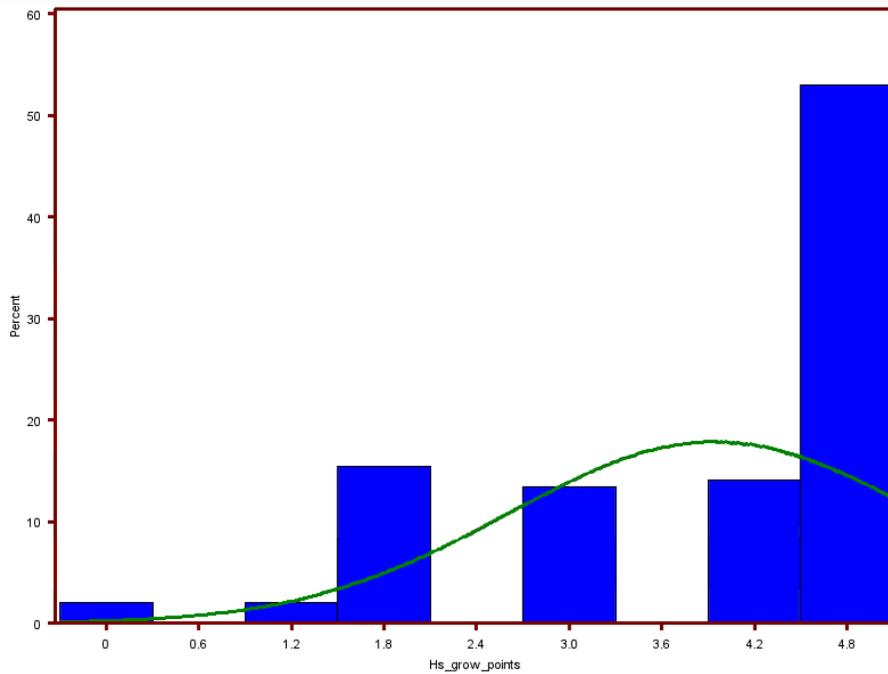
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Graduation Rate

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.

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	2017	5.0%
5-year	2016	4.0%
6-year	2015	2.5%
7-year	2014	0.5%

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

$$\textbf{4, 5, 6, and 7} - \textbf{\textit{year Grad Rate Points}} = \big(0.05(Cohort\ 2017\ \text{4-year Grad rate})\big) + (0.04(Cohort\ 2016\ \text{5-year Grad rate})) + (0.025(Cohort\ 2015\ \text{6-year Grad rate})) + (0.005(Cohort\ 2014\ \text{7-year Grad rate}))$$

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 2017 4-year graduation rate is greater than or equal to 90% = 10 points
- The difference between a school's Cohort 2017 4-year graduation rate and Cohort 2016 4-year graduation rate is greater than 2 points = 10 points
- The difference between a school's Cohort 2017 4-year graduation rate and Cohort 2016 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 2017 4-year graduation rate and Cohort 2016 4-year graduation rate is less than -2 points = 0 points

Graduation Rate Points = 4-, 5-, 6-, and 7-year Rate Points + Improvement Rate Points

Statistics and Graphs Graduation

Summary Tables

	gradrate	GradRateImpPoints4Y	GraduationRate
Max	10.00	10.00	20.00
Mean	9.37	7.22	16.59
Min	0.00	0.00	5.00
Range	10.00	10.00	15.00
StdDev	1.76	4.14	4.79
StdErr	0.10	0.23	0.27
Var	3.08	17.12	22.96
Median	10.00	10.00	20.00
Q1	10.00	5.00	13.00
Q3	10.00	10.00	20.00
P1	0.00	0.00	5.00
P5	6.00	0.00	8.00
P10	8.00	0.00	9.00
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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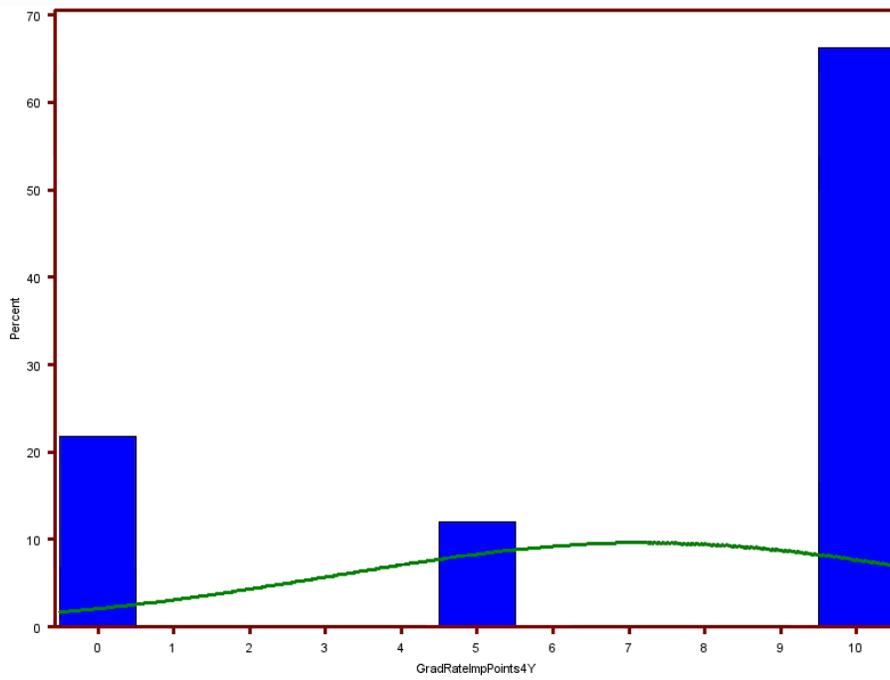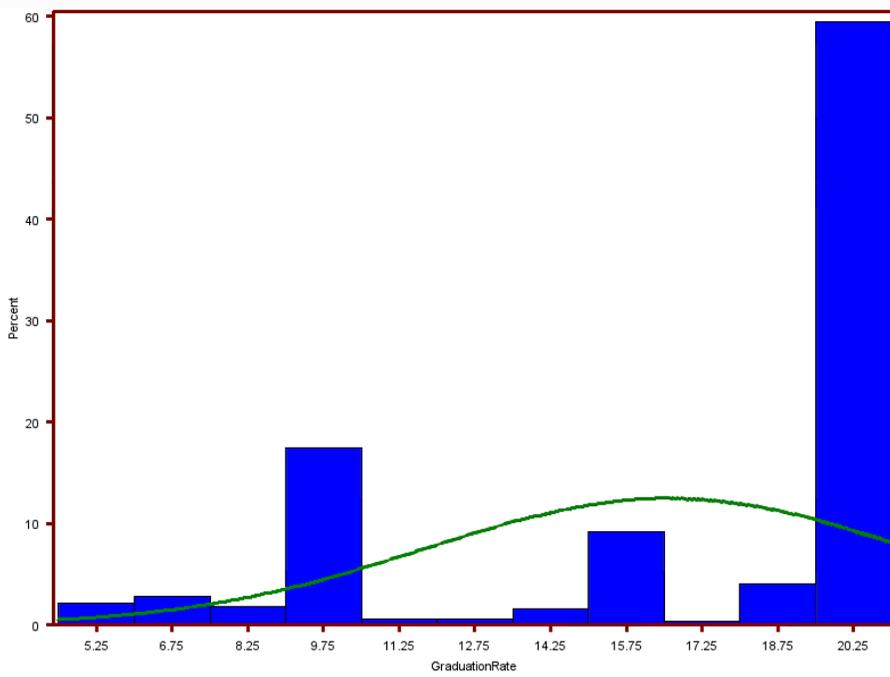### Distribution Analysis
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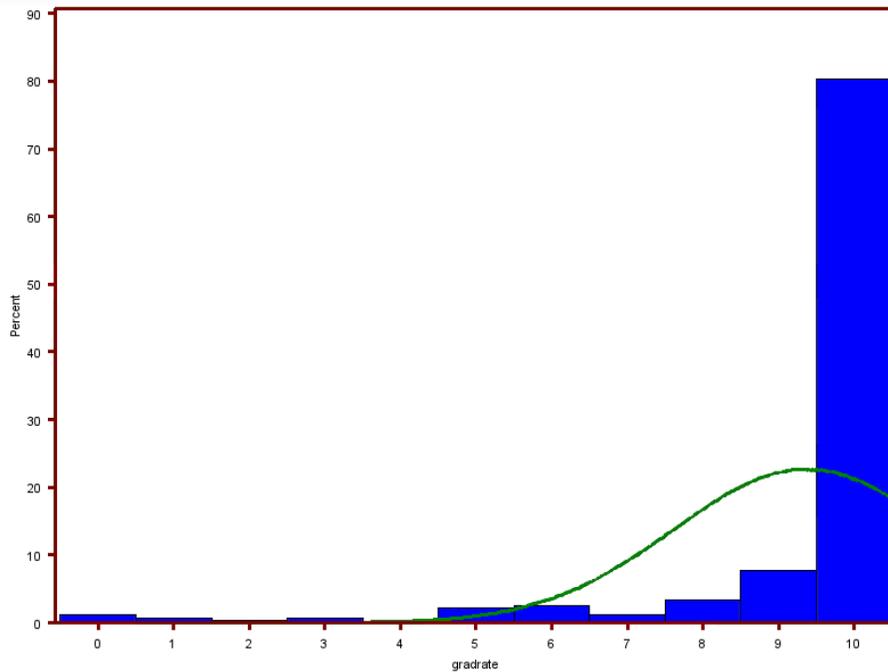
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College and Career Ready

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 2018 to be eligible for these points. These students should have been enrolled by October 1 and stayed continuously enrolled until May 1. Cohort 2018 students who graduated within that time span would count, as well. Schools can download the student level spreadsheet to assist with the calculations outlined below. Schools should look over each student's high school experience to determine how each student performed on the metrics outlined below. Schools will then submit their total points earned to ADE through ADEConnect. 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% enrollment earn one bonus point

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 AzMERIT 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
.3 **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

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
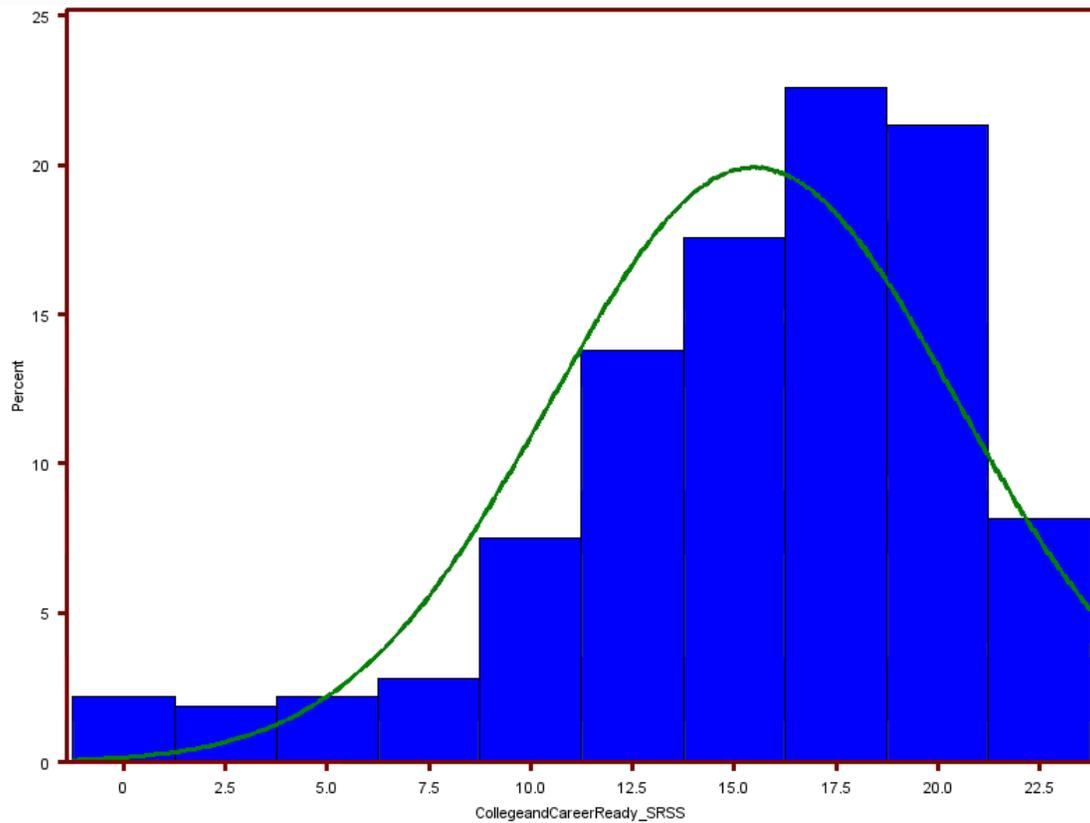
Statistics and Graphs College and Career

Summary Tables

	CollegeandCareerReady_SRSS
Max	22.90
Mean	15.50
Min	0.00
Range	22.90
StdDev	5.01
StdErr	0.28
Var	25.05
Median	16.40
Q1	12.90
Q3	19.30
P1	0.00
P5	4.40
P10	9.10
P90	21.10
P95	21.80
P99	22.50

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Bonus Points

Schools can earn bonus points two different ways.

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 (10.29%[xxviii]) to receive the bonus points.

The following formulas are used for the calculations:

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

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

$$\textbf{80\% of Statewide}\,\% = 80\%(Statewide\,CY\,FAY\,SPED\,Program\,Enrollment\,\%)$$

$$\textbf{FAY SPED Program Enrollment Bonus Point} = (School\,Level\,CY\,FAY\,SPED\,Program\,Enrollment\,\%\,-\,80\%\,of\,Statewide\,\%)$$

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:

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

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 62.7% = 3 points
- A school's current year percentage of proficient students is less than 62.7% and greater than 39.16%[xxix]= 1.5 points

Statistics and Graphs Bonus Points

Summary Tables

	Bonus_SPED_912	BONUS_SCI_912	TotalBonusPoints
Max	2.00	3.00	5.00
Mean	1.30	0.72	2.02
Min	0.00	0.00	0.00
Range	2.00	3.00	5.00
StdDev	0.96	1.07	1.18
StdErr	0.05	0.05	0.06
Var	0.91	1.15	1.39
Median	2.00	0.00	2.00
Q1	0.00	0.00	1.50
Q3	2.00	1.50	3.00
P1	0.00	0.00	0.00
P5	0.00	0.00	0.00
P10	0.00	0.00	0.00
P90	2.00	3.00	3.50
P95	2.00	3.00	3.50
P99	2.00	3.00	5.00

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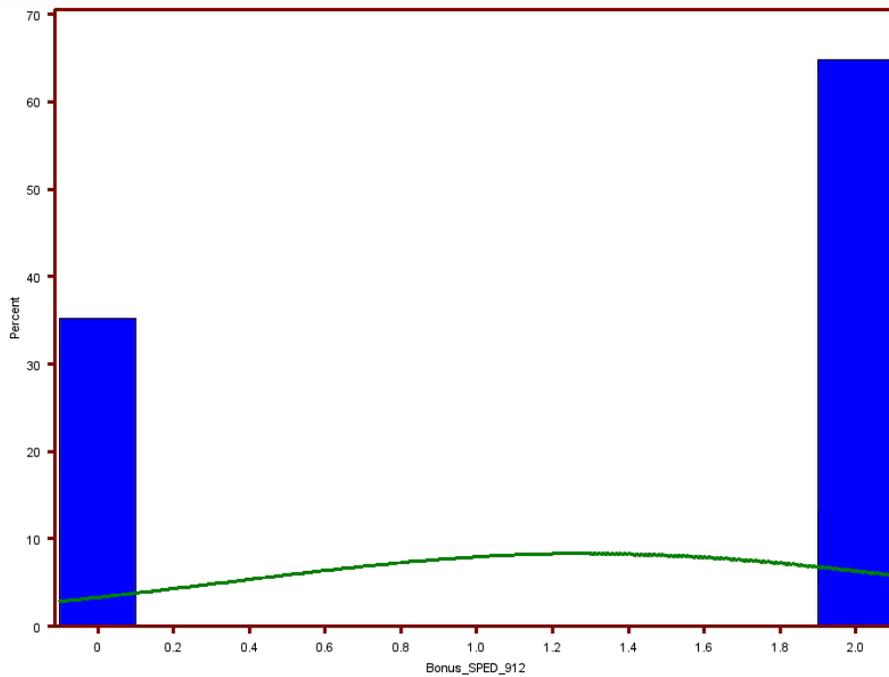
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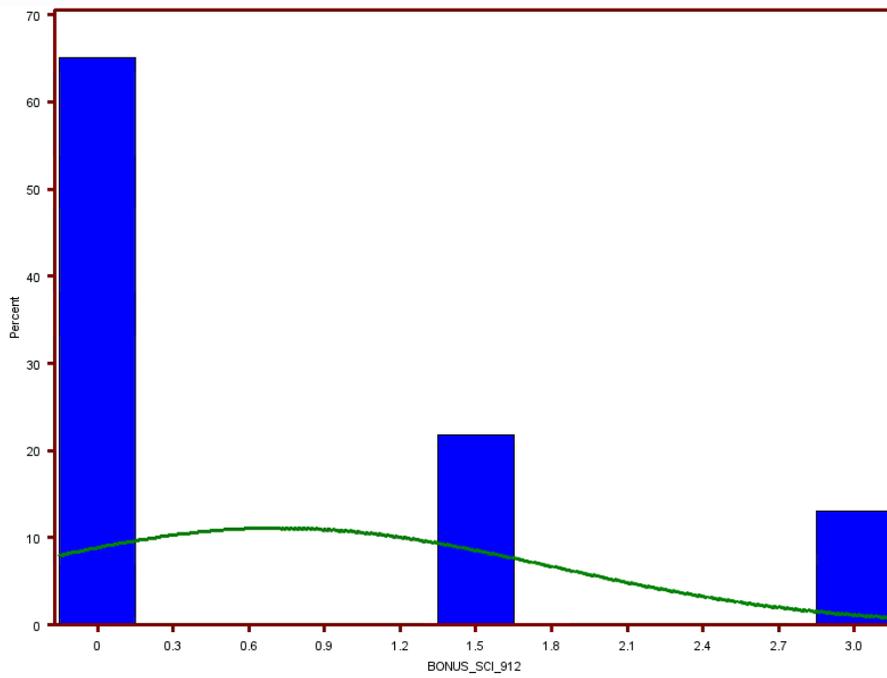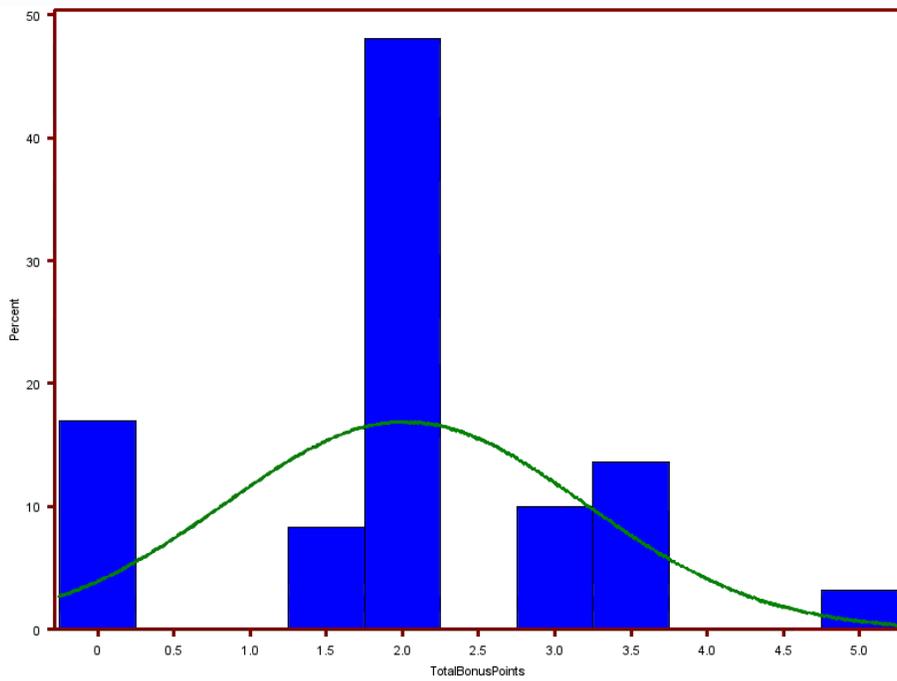
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Calculating Total Points[xxx]

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

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

$$\text{Letter Grade} = \begin{bmatrix} (0.30(Proficiency)) + (0.20(Growth)) + (EL\ Proficient\ Points) \\ +(EL\ Growth\ Points) + (Graduation\ Points) + (College\ and\ Career\ Ready\ Points) \end{bmatrix} + \text{Bonus Points}$$

xxxi

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

$$\text{Letter Grade} = 100 \left(\frac{\begin{bmatrix} (0.30(Proficiency)) + (0.20(Growth)) \\ +(Graduation\ Points) + (College\ and\ Career\ Ready\ Points) \end{bmatrix} + \text{Bonus Points}}{90} \right)$$

xxxii

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

$$\text{Letter Grade} = 100 \left(\frac{\begin{bmatrix} (0.30(Proficiency)) + (0.20(Growth)) \\ +(Graduation\ Points) \end{bmatrix} + \text{Bonus Points}}{70} \right)$$

xxxiii

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

$$\text{Letter Grade} = 100 \left(\frac{[(0.30(Proficiency)) + (0.20(Growth))] + \text{Bonus Points}}{50} \right)$$

xxxiv

Schools without enough students to be eligible for 50 points will be not rated in FY18.

Statistics and Graphs Total Points

Summary Tables

	Percentage Earned
Max	108.00
Mean	72.14
Min	13.83
Range	94.17
StdDev	17.19
StdErr	0.95
Var	295.63
Median	71.42
Q1	60.88
Q3	85.03
P1	26.10
P5	44.18
P10	50.89
P90	93.96
P95	102.35
P99	107.00

ADE Accountability & Research on December 26, 2018 at 1:46:06 PM

Distribution Analysis
The UNIVARIATE Procedure
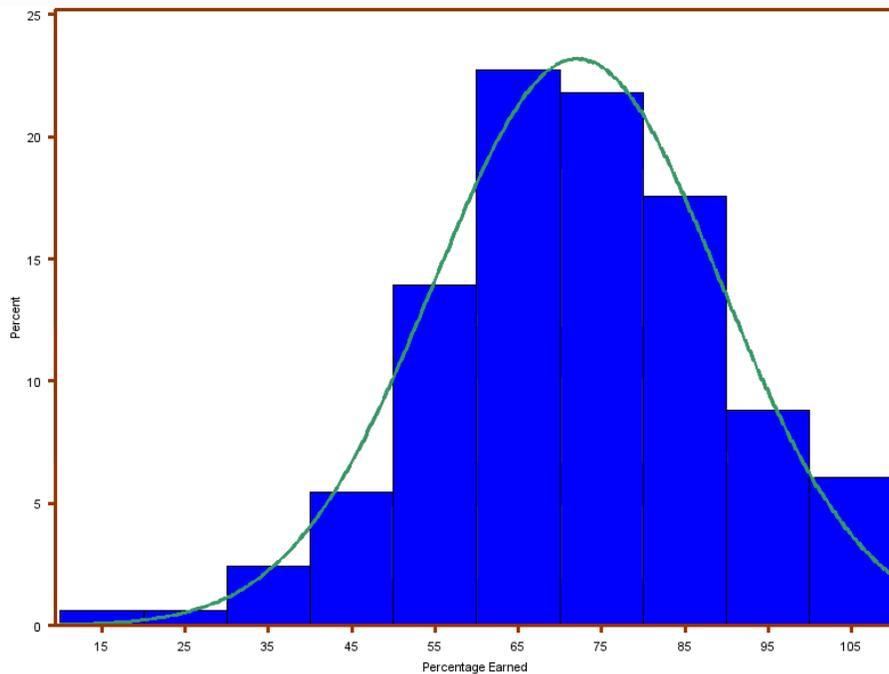
ADE Accountability & Research on December 26, 2018 at 1:50:04 PM

Non-Typical School Configurations

Schools that serve grades K-12, 1-12, 2-12, 3-12, 4-12, 6-11, etc. utilize both the K-8 and 9-12 models. Students in grades K-8 are used to determine the K-8 total points earned and students in grades 9-12 the 9-12 total points earned. The percentage of FAY students enrolled determines the weighting of the K-8 and 9-12 letter grades to assign the school one overall percentage. To obtain one letter grade the following calculation is done:

$$Non-Typical\ School\ Configuration\ Letter\ Grade$$
$$= \left[\frac{\binom{(3-8\ Total\ Points\ *\ 3-8\ FAY\ enrollment\ \%)}{+(9-12\ Total\ Points\ *\ 9-12\ FAY\ enrollment\ \%)}}{\binom{(3-8\ Total\ Points\ Eligible\ *\ 3K-8\ FAY\ enrollment\ \%)}{+(9-12\ Total\ Points\ Eligible\ *\ 9-12\ FAY\ enrollment\ \%)}} \right]$$

xxxv

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

$$Non-Typical\ School\ Configuration\ Letter\ Grade = \left[\frac{((72.00*0.58)+(22.00*0.42))}{((90.00*0.58)+(50.00*.42))} \right]$$

$$= \left[\frac{(41.76+9.24)}{(52.2+21)} \right]$$

$$= \left[\frac{51.00}{73.00} \right]$$

$$= 69.67$$

Statistics and Graphs Non-Typical Total Points

Summary Tables

	TotalpointsEligibleHybridModel
Max	100.00
Mean	88.37
Min	66.97
Range	33.03
StdDev	6.09
StdErr	0.65
Var	37.09
Median	90.00
Q1	84.97
Q3	90.00
P1	66.97
P5	77.01
P10	81.00
P90	96.55
P95	96.91
P99	100.00

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Distribution Analysis
The UNIVARIATE Procedure
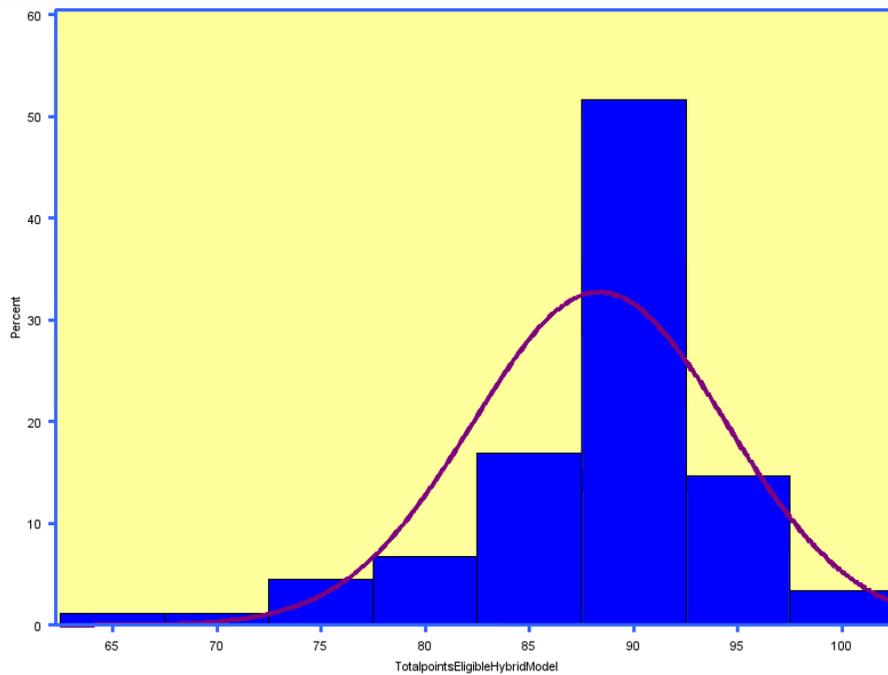
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Appendix

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
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
PP	Partially Performing on AzMERIT
PY	Previous Year
RALEP	Recently Arrived Limited English Proficiency
SG	Sub Group
SPED	Special Education
SGP	Student Growth Percentile
SGT	Student Growth Target

Terms and Definitions for Tables and Graphs

Bonus_SPED_K8: Points earned based on the special education percentage rate compared to the state inclusion rate

Bonus_SPED_912: Points earned based on the special education percentage rate compared to the state inclusion rate

BONUS_SCI_ES: Points earned for achieving a higher percentage on the state Science assessment compared to the state

BONUS_SCI_K8: Points earned for achieving a higher percentage on the state Science assessment compared to the state

CollegeandCareerReady_SRSS: Points earned from the College and Career Readiness matrix, there are 20 points, plus the ability to earn two more and a bonus point.

ChronicAbsenteeism: Points earned for improving chronic absenteeism in the K-8 model

ELProficiencyandGrowthPoints: How many points out of ten points available that the school earned in English

Leaners growth and proficiency
Grades58HSEOC: Points earned for improving End of Course participation in grades 5-8
gradrate: Grad rate points earned for 4, 5, 6 and 7-year rates, 10 points max
GradRateImpPoints4Y: Grad rate points earned for improvement, 10 points max
GraduationRate: Total points earned for graduation, 20 points max
Grades58HSEOC: Points earned by improving End of Course assessments given in grade 5-8
Growth: Total points earned in K-8 model worth a max of 50 points
GrowthPoints_912: Total points earned in 9-12 model worth a max of 20 points
Hs_grow_points: Total points earned in 9-12 model for English Learners
Percentage Earned: The percentage of all components that is used to determine the final score
PercentProficientAllStudents: Percent proficient all student is the percentages earned from the weighted calculation that is used to determine the proficiency points for both K-8 and 9-12
PercentTested: Percent tested on the state assessment
Proficiency: 9-12 points earned out of 30
profpoints: Proficiency points are the actual points earned in both the K-8 model (30) and the 9-12 model 30
Schl_pct_reclass: Distribution of English Learner reclassification prior to transformation
Schl_pct_reclass_transform: Distribution of English Learner reclassification after transformation
SGP_ELA: Student Growth Percentage English Language Arts is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SGP_math: Student Growth Percentage math is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SGPELAPoints: Student Growth Percentage English Language Arts is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SGPMathPoints: Student Growth Percentage math is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SGT_ELA: Student Growth Target English Language Arts is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SGT_math: Student Growth Target math is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SGTELAPoints: Student Growth Target English Language Arts is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SGTMathPoints: Student Growth Target math is the percentage earned from the weighted calculation that is used to determine the growth points for both K-8 and 9-12
SpecialEducationInclusion: Points earned based on the special education inclusion rate compared to the state inclusion rate
SubgroupImprovement: Points earned based on improving subgroup improvement on straight proficiency on the recognized subgroups
TotalARPoints: Total points a K-8 model earns in Acceleration Readiness component
TotalBonusPoints: All bonus points earned
TotalELGrowthPoints: How many points out of five points available that the school earned in English Leaners growth component
TotalELProficiencyPoints: How many points out of five points available that the school earned in English Leaners proficiency component
TotalpointsEligibleHybridModel: Points earned by combining the weighted points earned from the K-8 model and the 9-12 model

Career and Technical List of Qualifying Programs

SY2018 A-F CCRR 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

[i] FAY definition removed "or test date" and added state testing window to clarify description of EL FAY 2018-10-01

[ii] EL Data Normalization explanation added 2018-06-22

[iii] EL Proficiency K-8 2018-06-29

[iv] EL Profciency K-8 updated to include one point earned if between -2.01 and -3.00 standard deviations of the statewide average 2018-09-25

[v] Cut scores for the standard deviations for K-8 EL Proficiency and notes added 2018-09-26

[vi] Inclusion of early fall placement and spring reassment AZELLA for growth K-8 2018-07-05

[vii] EL Growth K-8 2018-06-29

[viii] EL Growth K-8 updated to include one point earned if between -2.01 and -3.00 standard deviations of the statewide average 2018-09-25

[ix] Cut scores for the standard deviations for K-8 EL Growth and notes added 2018-09-26

[x] K-8 Math 5-8 EOC CY Proficiency calculation clarified 2018-09-27

[xi] K-8 Math 5-8 EOC PY Proficiency calculation clarified 2018-09-27

[xii] Clarification on absence types included for chronic absenteeism calculation 2018-09-25

[xiii] Clarification on n-count subgroup calculation 2018-06-25

[xiv] K-8 Acceleration State Average quality assurance check 2018-09-25

[xv] K-8 Special Education Bonus Points State Average quality assurance check 2018-09-25

[xvi] K-8 Science bonus state average 2018-09-25

[xvii] K-8 Calculating formulas to reflect bonus after final points are calculated 2018-07-10

[xviii] K-8 Calculating formula align bonus point inclusion following SBE guidance 2018 -09-26

[xix] K-8 Calculating formula align bonus point inclusion following SBE guidance 2018 -09-26

[xx] K-8 Calculating formula align bonus point inclusion following SBE guidance 2018 -09-26

[xxi] EL Proficiency 9-12 2018-06-29

[xxii] EL Profciency 9-12 updated to include one point earned if between -2.01 and -3.00 standard deviations of the statewide average 2018-09-25

[xxiii] Cut scores for the standard deviations for 9-12 EL Proficiency and notes added 2018-09-26

[xxiv] Inclusion of early fall placement and spring reassment AZELLA for growth 9-12 2018-07-05

[xxv] EL Growth 9-12 2018-06-29

[xxvi] EL Growth 9-12 updated to include one point earned if between -2.01 and -3.00 standard deviations of the statewide average 2018-09-25

[xxvii] Cut scores for the standard deviations for 9-12 EL Growth and notes added 2018-09-26

[xxviii] 9-12 Special Education Bonus Points State Average quality assurance check 2018-09-25

[xxix] 9-12 Science bonus state average 2018-09-19

[xxx] 9-12 Calculating formulas to reflect bonus after final points are calculated 2018-07-10

[xxxi] 9-12 Calculating formula align bonus point inclusion following SBE guidance 2018 -09-26

[xxxii] 9-12 Calculating formula align bonus point inclusion following SBE guidance 2018 -09-26

[xxxiii] 9-12 Calculating formula align bonus point inclusion following SBE guidance 2018 -09-26

[xxxiv] 9-12 Calculating formula align bonus point inclusion following SBE guidance 2018 -09-26

[xxxv] Modeling was based on 3-8 not K-8, therefore the formula was changed to reflect the modeling 2018-06-21