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

K-8 Model

Last Updated October 19, 2021
Modified and Annotated Based on the Impact of COVID-19

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Legislation Based on Impact of the COVID-19 Pandemic

On February 15, 2021 Governor Doug Ducey signed into law HB2402. The law addressed testing and accountability by requiring the State Board of Education to calculate and report the A-F components, but not issue letter grades. The parts of the bill that directly affect these Business Rules are shown below:

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

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

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

Introduction

These business rules detail Arizona's 2021 A-F Traditional K-8 Schools Letter Grade Accountability System for educators, parents, and other stakeholders. The Arizona Department of Education's (ADE) mission is equity for all students to achieve their full potential. As a state, we are also committed to holding schools accountable to this goal using an equitable accountability model that differentiates the performance of schools.

Using the A-F Letter Grade Accountability System, Arizona makes annual accountability determinations for K-8 schools based on student academic outcomes, growth, and acceleration/readiness. The accountability system outlined here uses several metrics to measure student learning and growth in Arizona traditional K-8 public schools.

Business Rules

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

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

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

Overview of the A-F Letter Grade Accountability System

As outlined by A.R.S. §15-241, the State Board of Education (SBE) determined the criteria for each school classification. Details regarding A-F and the process can be found at https://azsbe.az.gov/f-school-letter-grades. The following outlines the traditional school K-8 model that was approved on January 27, 2020.

The A-F Letter Grade accountability system includes the following:
1. Percentage of proficient students on the AzM2 grade level assessment
2. Longitudinal indicators of relative student gain and growth towards proficiency/ maintenance of proficiency
3. EL language proficiency and growth
4. Indicators to measure students' ability to accelerate beyond elementary school

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

Data Inclusion Criteria

AzM2, MSAA, AzSCI Field Test, MSAA Science Field Test, and AZELLA data were used in the letter grade calculation after validation against the statewide Arizona Education Data Standards (AzEDS). Using the student's AzEDS identification as the unique identifier, integrity checks consider valid student enrollment and accurate student identification on test date relevant to the grade level and subject tested.

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

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

2-year FAY – Students who are FAY two consecutive years in a row (FY20, FY21) at the same school. 2-year FAY students are not included in 1-year FAY stability calculations.

3-year FAY – Students who are FAY three consecutive years in a row (FY19, FY20, FY21) at the same school. 3-year FAY students are not included in 2-year FAY and 1-year FAY stability calculations.

AZELLA FAY – Students were included in the EL calculations if they were enrolled within the first ten school days of the school's calendar year and continuously enrolled until the last day of the state testing window for AZELLA. Students with breaks in enrollment fewer than 10 calendar days in the same school are still considered AZELLA FAY.

AOI FAY — Students that attend AOIs are FAY students if they log enough minutes at the AOI. The required minutes varies depending on grade level: Students in Kindergarten must log 16,020 minutes at an AOI school to be considered FAY, students in grades 1-3 must log 32,040 minutes to be considered FAY, students in grades 4-6 must log 40,050 minutes to be considered FAY, and students in grades 7-8 must log 40,050 minutes to be considered FAY[i].

Chronically Absent – A student is chronically absent if that student has absences (excused and unexcused) greater than 10% of a school's calendar year (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. Students who are enrolled in Kindergarten or are flagged as chronically ill in AzEDS are removed from the Chronic Absenteeism calculation.

Current Year – refers to FY21

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

English Learner (EL) – Any student identified with an EL need
- with a less than proficient score on AZELLA in the current or prior fiscal year
- students that may have been identified during the pandemic based on the Home Language Survey

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

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

Homeless – Student data submitted via AzEDS in the Homeless field.

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

Income Eligibility 1 & 2 data is lower this year due to COVID-19 impact on the ability of schools to collect and report this data. LEAs and Charter Schools continued to update their Income Eligibility 1 & 2 data throughout the year. Arizona Department of Education's Health and Nutrition Service

Division has worked with the field in supporting and feeding more students during the pandemic than in previous years under the Summer Food Service Program instead of the National School Lunch Program. However, the National School Lunch Program is only one of multiple sources LEAs and Charter Schools use to populate Income Eligibility 1 & 2 indicators.

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

N-Size – The minimum number of students required for the indicator to be calculated and the school eligible to earn the points. The N-Size for all indicators is 10 students.

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

Prior Year – Refers to FY20

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

Special Education Student – Any student receiving special education services on October 1, 2021 as defined by Federal law. To confirm whether a student meets this criterion, schools can check their SPED07 report in the ESS Census Application. Information regarding the ESS Census process can be found here: http://www.azed.gov/specialeducation/data-management/federal-sped-census/

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

Indicator	Component	FAY	Grades
Proficiency	AzM2 ELA and Math	✓	3-8
	MSAA ELA and Math	✓	3-8
Growth	Growth on AzM2 ELA and Math	✓	5-8
EL	EL Proficiency and Growth	✓	K-8
Acceleration/Readiness	Grade 8 Mathematics Performance	✓	8
	Grade 3 ELA	✓	3
	Chronic Absenteeism		1-8
	Subgroup Improvement	✓	3-8
	Special Education Inclusion	✓	K-8
Bonus	AzSCI Field Test and MSAA Science Field Test	✓	5 and 8
	Special Education Enrollment	✓	K-8

Regardless of a student's special education status, the accountability system uses all verified AzM2 data from students enrolled the full academic year. For students who take the MSAA assessment and are enrolled the full academic year, these data are used in the Proficiency component but not in the calculation of student growth percentiles or student growth targets (Growth).

Students with a performance level reported from the AzM2 English Language Arts and Mathematics assessments, MSAA, and AzSCI Field Test or MSAA Science Field Test are utilized in certain calculations (detailed below). The department does not include AzM2, MSAA, AzSCI Field Test or MSAA Science Field Test records for students where no answer items are selected and no scale score or performance level is assigned. The following table indicates the only valid performance levels on AzM2 or MSAA at all grade levels and for all subjects.

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

A-F Static File

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

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

Data in the Growth Model

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

1. Student enrollment generates ADM in any Arizona public school (i.e., tuition payer code equal to 1 or FTE greater than 0).
2. Student has a test record from the 2020-2021 school-year.
3. Student also has a test record from the 2018-2019 school-year in the same subject.

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

Timeline & Appeals

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

Cut Scores

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

2021 K-8 A-F Traditional School Letter Grade Models

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

The K-8 A-F Letter Grade model aims to fairly and accurately depict a school's accountability determination in a manner which complies with state statute, State Board Rule, as well as other accountability requirements.

Schools 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. Non-Typical school configurations, those that serve grades K-12, 1-12, 2-12, 6-12, etc., are graded on both the K-8 and 9-12 models. Approved Alternative schools will be graded on the Alternative School Model. Small schools with fewer than 10 FAY students or schools not eligible for enough of the total 100 points (80 for K-8) will be Not Rated in Fiscal Year 2021.

N-Size

The K-8 traditional school model requires schools to have 10 FAY students in each indicator to be eligible to earn the points. Exceptions to this rule are:

- Acceleration/Readiness Chronic Absenteeism requires an N-Size of 10 students including FAY and non-FAY
- Special Education enrollment bonus points do not require N-Size of 10
- Science Proficiency bonus points do not require N-Size of 10

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

RAEL

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

K-8 Model
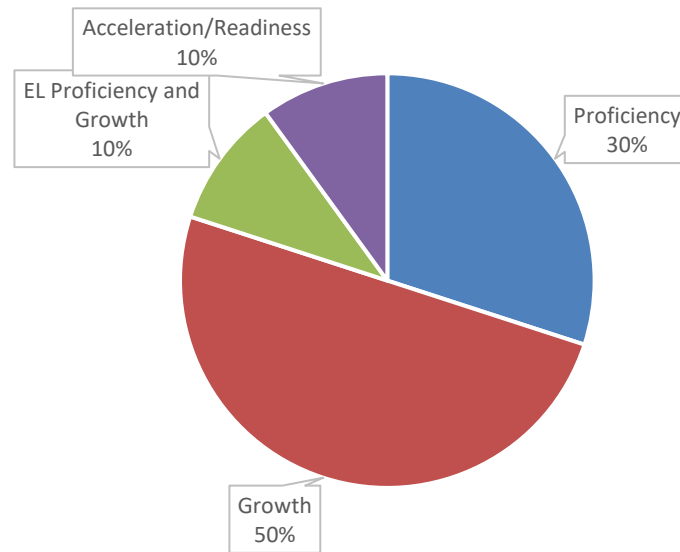
Weight	Indicators
30%	Proficiency, Statewide Assessment
50%	Growth, Statewide Assessment
10%	Proficiency and Growth, English Learners
10%	Acceleration / Readiness Measures

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. Indicators must have a minimum of 10 FAY students to count, excluding components 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 2021 AzM2 or MSAA ELA and 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. Invalid test records count as not tested. Proficiency points are capped at 30. The achievement levels are weighted such that students scoring highly proficient earn the most points (see below).

Achievement Level	Point Value
Minimally Proficient (1)	0
Partially Proficient (2)	0.6
Proficient (3)	1.0
Highly Proficient (4)	1.3

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: This model weights all FAY (1-,2-, and 3-year) students 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. Students are included in the 95% tested calculation for a school if they are enrolled in a tested grade (3-8) on the first day of the AzM2 state testing window.

The formula used is to calculate percent tested:

$$\textbf{Grades 3} - \textbf{8 \% Tested}$$
$$= 100 \left[\frac{0.5\ (No.\ of\ students\ tested\ in\ ELA + No.\ of\ Students\ Tested\ in\ Math)}{(No.\ of\ students\ enrolled\ in\ grades\ 3-8\ on\ the\ first\ day\ of\ the\ AzM2\ State\ Testing\ Window)} \right]$$

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

Percent Proficient for Schools that Meet 95% Tested

$$\% \textbf{ Proficient for Schools Meeting } \textbf{95\% Tested}$$
$$= 100 \left(\frac{ \begin{bmatrix} ((No.\ of\ FAY\ students\ PP\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ PP\ on\ AzM2\ or\ MSAA\ Math)0.6) \\ +((No.\ of\ FAY\ students\ P\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ P\ on\ AzM2or\ MSAA\ Math)1.0) \\ +((No.\ of\ FAY\ students\ HP\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ HP\ on\ AzM2\ or\ MSAA\ Math)1.3) \end{bmatrix} }{No.\ of\ FAY\ students\ tested\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ tested\ on\ AzM2\ or\ MSAA\ Math} \right)$$

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

$$\% \textbf{ Proficient for Schools DO NOT Meet } \textbf{95\% Tested}$$
$$= 100 \left(\frac{ \begin{bmatrix} ((No.\ of\ FAY\ students\ PP\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ PP\ on\ AzM2\ or\ MSAA\ Math)0.6) \\ +((No.\ of\ FAY\ students\ P\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ P\ on\ AzM2\ or\ MSAA\ Math)1.0) \\ +((No.\ of\ FAY\ students\ HP\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ HP\ on\ AzM2\ or\ MSAA\ Math)1.3) \end{bmatrix} }{ \begin{matrix} (No.\ of\ FAY\ students\ tested\ on\ AzM2\ or\ MSAA\ ELA + No.\ of\ FAY\ students\ tested\ on\ AzM2\ or\ MSAA\ Math) \\ +2(No.\ of\ Students\ needed\ to\ Meet\ 95\%\ tested) \end{matrix} } \right)$$

Statistics and Graphs for 95% Tested and Proficiency

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 43)

Summary Tables

	PercentTested	PercentProficientAllStudents	profpoints
Max	1.00	116.20	30.00
Mean	0.90	46.81	14.02
Min	0.07	0.00	0.00
Range	0.93	116.20	30.00
StdDev	0.13	24.49	7.30
StdErr	0.00	0.64	0.19
Var	0.02	599.95	53.23
Median	0.94	43.26	12.98
Q1	0.88	26.67	8.00
Q3	0.97	66.82	20.05
P1	0.35	5.30	1.59
P5	0.63	13.37	4.01
P10	0.75	17.02	5.11
P90	0.99	81.76	24.53
P95	1.00	89.52	26.86
P99	1.00	101.34	30.00

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K-8 Schools Percent Tested
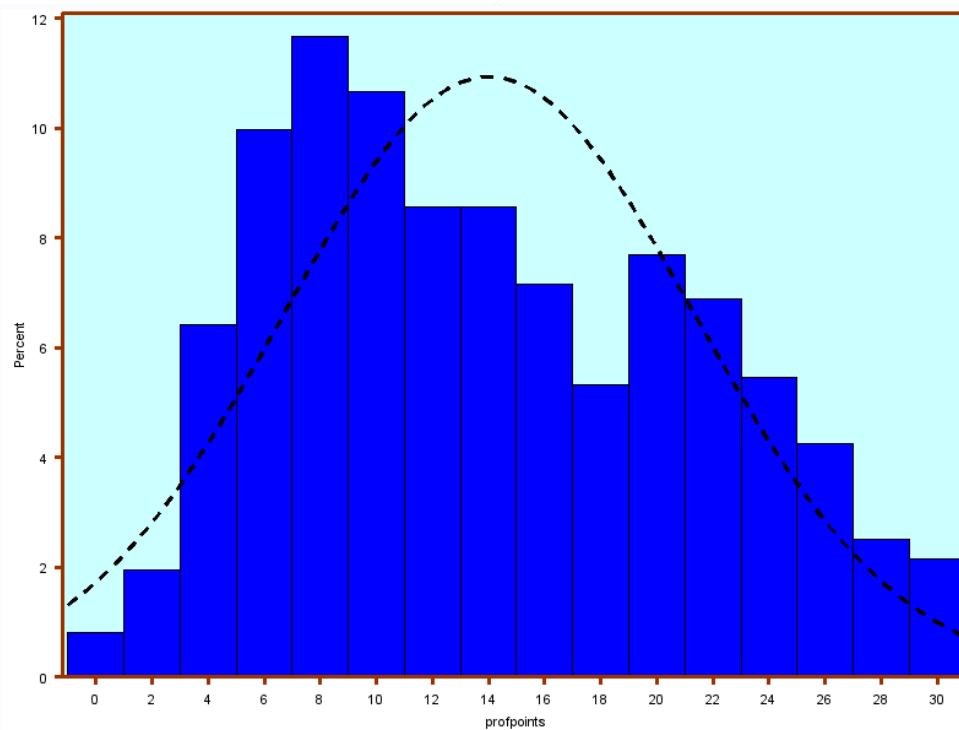

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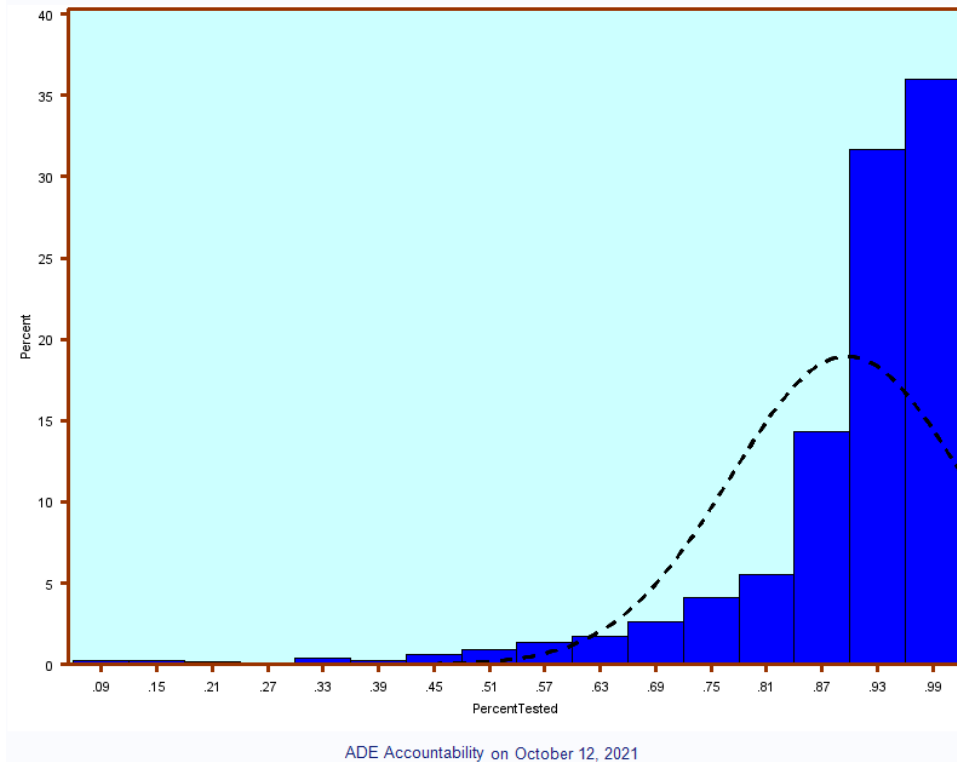
K-8 Percent Proficient All Students
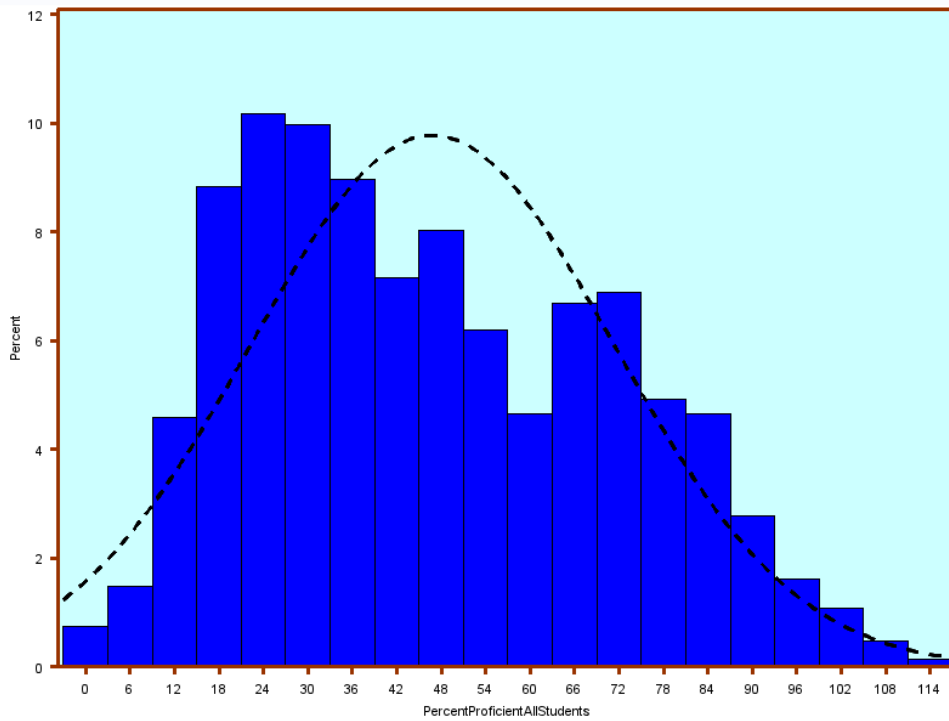
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K-8 Proficiency Points

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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 in each subject, ELA and Math, to be eligible for growth points. Thus, SGP for ELA is worth 25% and SGP for Math is worth 25%. Math growth points are capped at 25 and ELA points are capped at 25, thus making growth points capped at 50.

Student Growth Targets (SGT) have been utlized in the previous K-8 Traditional models for the Growth component. A new test platform will be used in the 2021-2022 school year. SGT are based on achieving proficiency, or maintaining proficiency, within three years. Because of this, SGTs cannot currently be calculated. After the first administration of the new assessment and analysis of those assessments, SGT are expected to be used again in the Growth component.

Student Growth Percentile (SGP)

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

The SGP model usually assesses academic growth over one school year by employing quantile regression that links current-year scores with the scores from the immediate prior year(s). Due to cancelations of statewide assessments in Spring of 2020, the growth for the 2020-2021 school year will be calculated linking the 2018-2019 school year data (and prior year data if available in 2017-2018) to the 2020-2021 school year data. This is the academic growth over a period of two school years. This skip-year methodology has been modeled and validated through historical data, consultation with experts, and review of available literature.

In this skip-year SGP Model, a student's test records in the 2020-2021 school year will be linked to his/her test records in the 2018-2019 school year as well as his/her test records in the 2017-2018 school year. A student must have scores for the 2020-2021 school year as well as for the 2018-2019 school year to receive an SGP, but student cohorts will be built by using the historic data from the 2018-2019 school year as well as the 2017-2018 school year if available. For example, to calculate the SGP for a student in Grade 5 from the 2020-2021 school year, her test records in Grade 5 in the current year will be linked to her test records in Grade 3 from the 2018-2019 school year. And to calculate the SGP for a student in Grade 8 in the 2020-2021 school year, his test records in Grade 8 in the current year will be linked to his test records in Grade 6 from the 2018-2019 school year as well as to the ones in Grade 5 from the 2017-2018 school year. In this skip-year SGP model, Grade 5 is the first possible opportunity to assess growth

for a student. Students in grades 3 and 4 will not have an SGP as they do not have test records from the 2018-2019 school year.

	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Grade 7						Current Cohort
Grade 6						
Grade 5						
Grade 4						

Note: Shaded area denotes the year without assessment

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

To be specific, valid student test records must meet four criteria for inclusion in the growth model:

1. Student enrollment generates ADM in any Arizona public school (i.e., tuition payer code equal to 1).
2. Student has a test record from the 2020-2021 school year.
3. Student also has a test record from the 2018-2019 school in the same subject.
4. Each student's test records in the current year and in the prior year(s) should be "consecutive" with the grade in the 2019-2020 school year to be skipped.

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

Weighted Calculation for Growth

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

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

Then the percentage of students at the school level, 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:

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

Statistics and Graphs for Growth

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 43).

Summary Tables

|	SGP_ELA	SGPELAPoints	SGP_math	SGPMathPoints
Max	150.66	37.67	170.33	42.58
Mean	86.31	21.58	86.08	21.52
Min	30.56	7.64	18.00	4.50
Range	120.10	30.03	152.33	38.08
StdDev	15.74	3.93	22.86	5.71
StdErr	0.42	0.10	0.61	0.15
Var	247.74	15.48	522.36	32.65
Median	87.04	21.76	86.69	21.67
P1	45.72	11.43	31.44	7.86
P5	58.88	14.72	47.62	11.91
P10	66.66	16.67	56.18	14.05
P90	105.14	26.29	115.41	28.85
P95	110.01	27.50	120.53	30.13
P99	122.61	30.65	135.42	33.86

ADE Accountability & Research on October 12, 2021

Student Growth Percentile English Language Arts
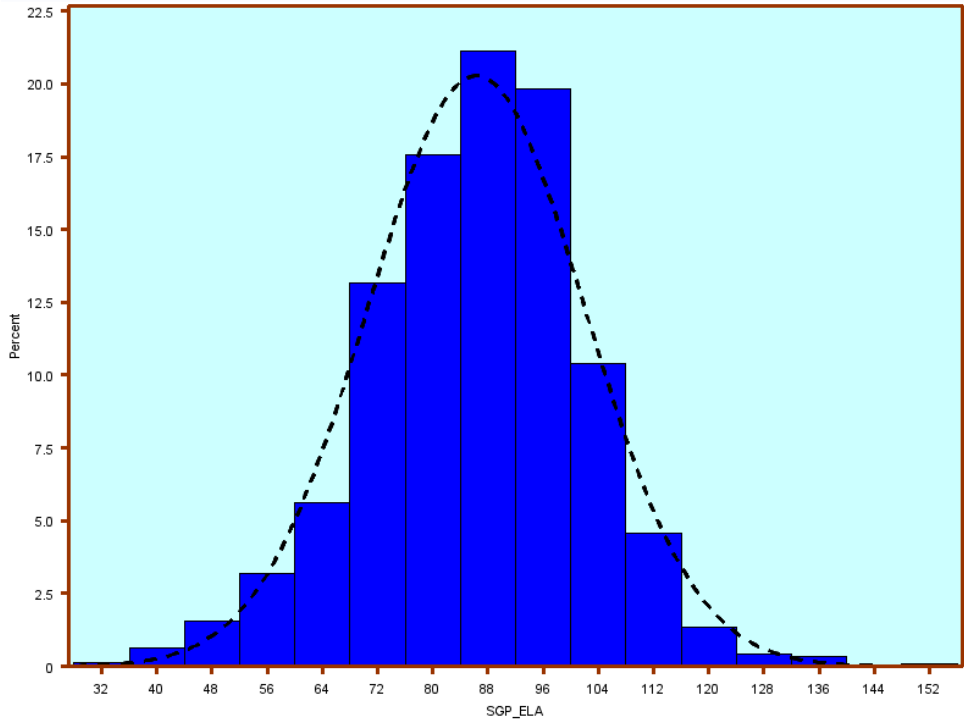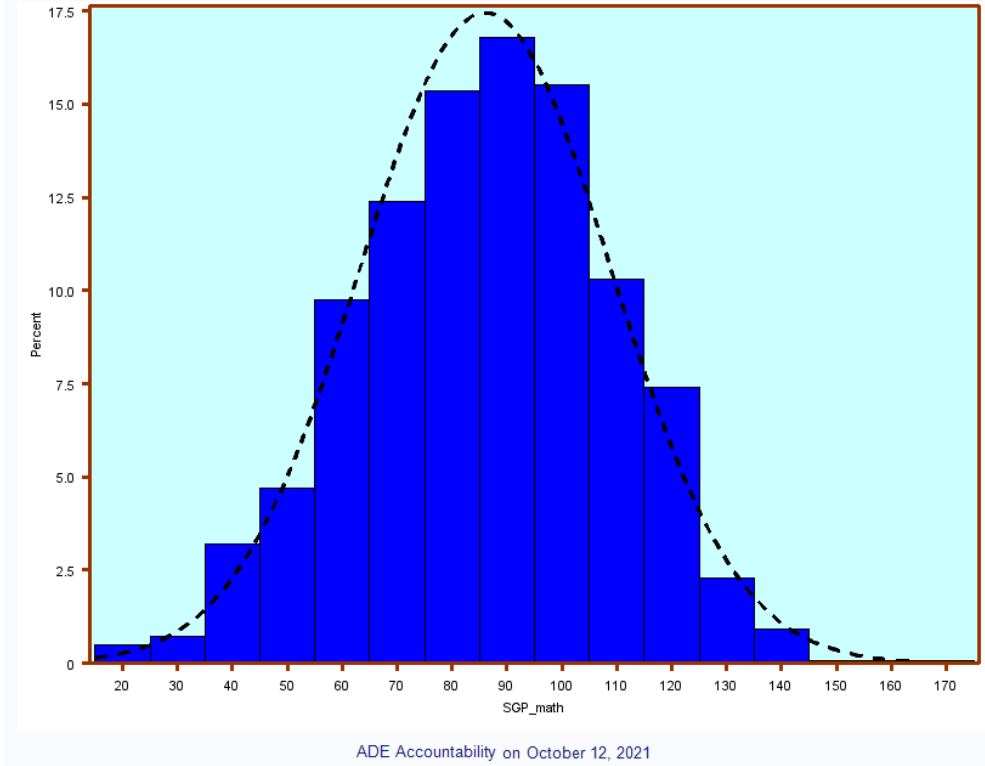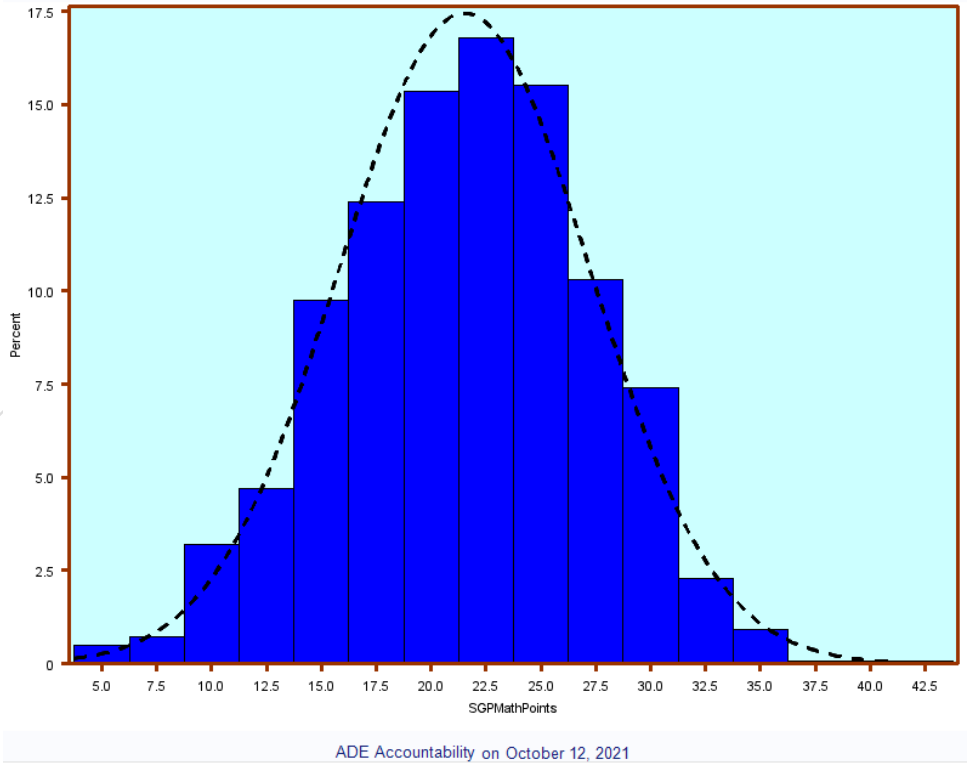

ADE Accountability on October 12, 2021

Student Growth Points English Language Arts
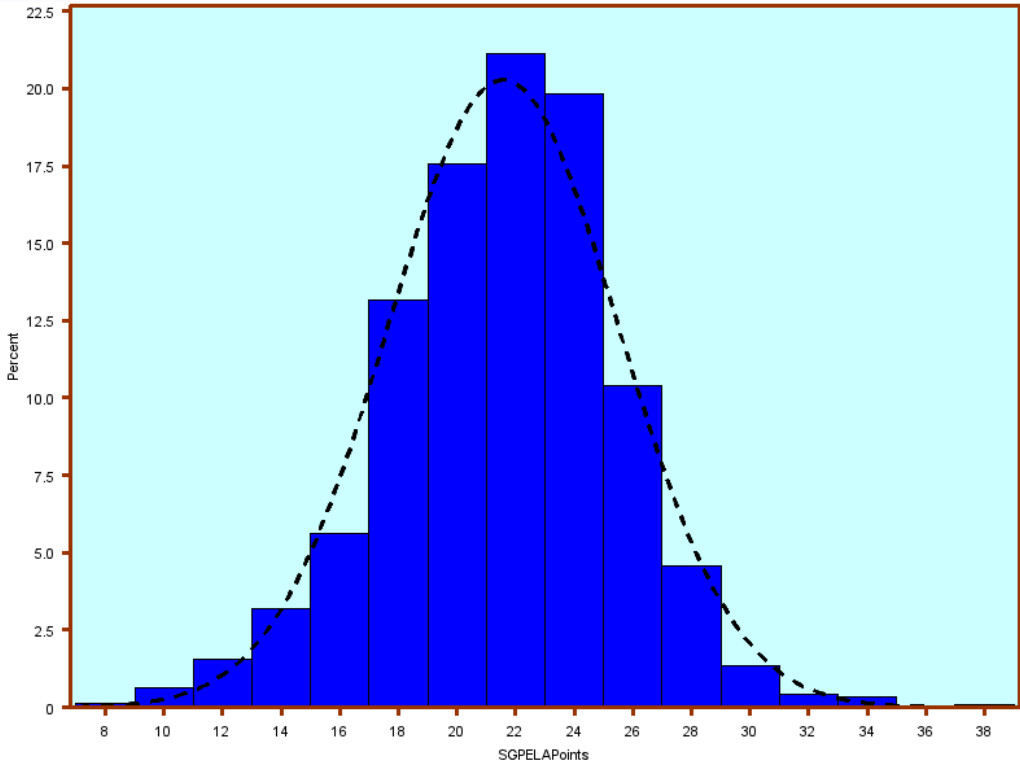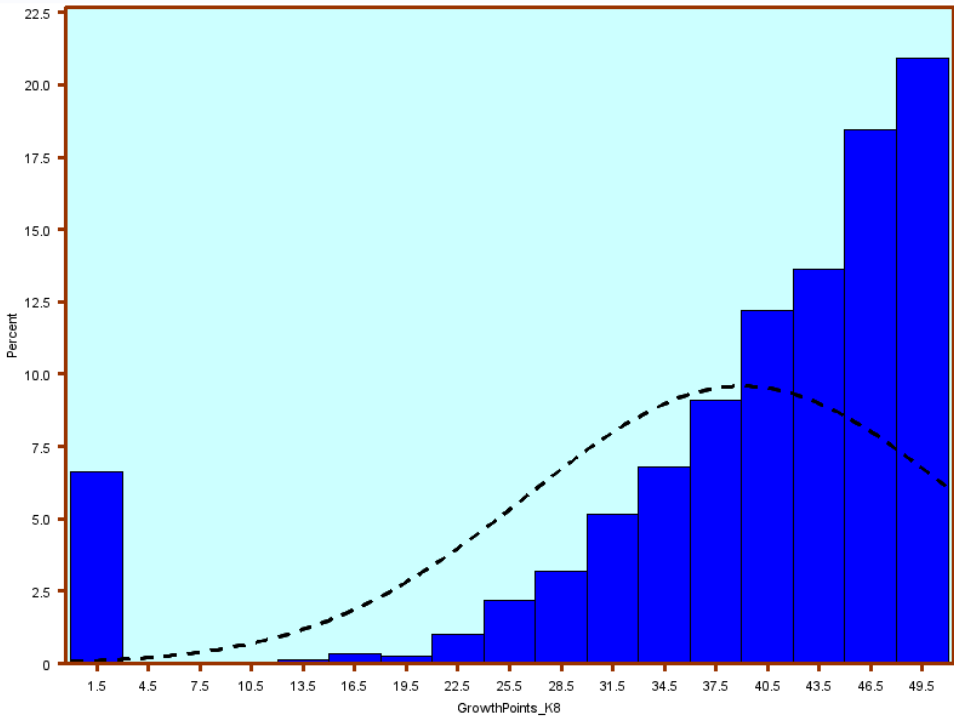
Student Growth Percentile Mathematics

ADE Accountability on October 12, 2021

Student Growth Points Mathematics


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Total Growth Points

ADE Accountability on October 12, 2021

Normalizing (Transforming) EL Data

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

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

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

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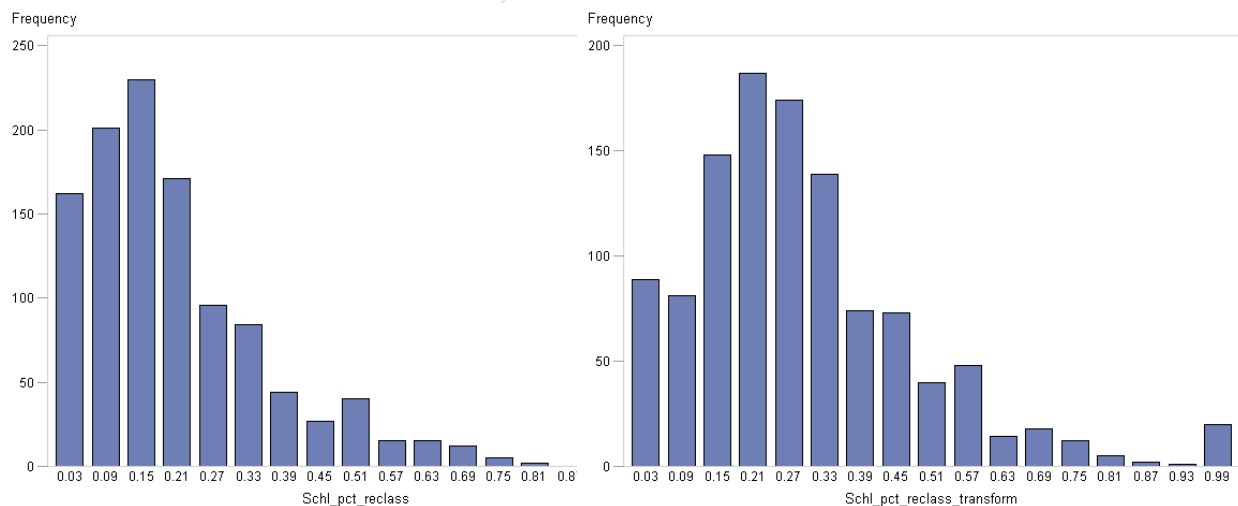
EL Proficiency and Growth

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

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

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

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

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

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

STANDARDIZED	Range	Points
EL Proficiency is greater than or equal to the EL statewide mean current year percent proficient.	18.28%	5
EL Proficiency is 0.01 to 0.50 standard deviations below the EL statewide mean current year percent proficient.	12.13% – 18.27%	4
EL Proficiency is 0.51 to 1.00 standard deviations below the EL statewide mean current year percent proficient.	5.98% – 12.12%	3
EL Proficiency is 1.01 to 2.00 standard deviations below the EL statewide mean current year percent proficient.	0.001% – 5.97%	2
EL Proficiency is 2.01 to 3.00 standard deviations below the EL statewide mean current year percent proficient.	NA	1
If a school's EL Proficiency is 0%, due to no reclassification.	0.00%	0

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. Kindergarten students who take a placement test prior to January 1st, 2021 and then take a spring reassessment will be included. In addition, any student who takes a placement exam for the first time by October 1st and then takes a spring reassessment will be included. Students who had a placement exam in one school and a reassessment in another school within the same school year will not be included as they will not qualify as AZELLA FAY.

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

Prior Year Achievement Level	Current Year Achievement Level	Point Value
Basic/Intermediate	Intermediate	1
Pre-Emergent/Emergent	Basic	
Basic	Intermediate	
Intermediate	Proficient	
Pre-Emergent/Emergent	Intermediate	2
Basic/Intermediate	Proficient	
Basic	Proficient	
Pre-Emergent/Emergent	Proficient	3

The following formula is used to calculate growth:

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

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

$$\textbf{EL K} - \textbf{8 Statewide Current Year Growth Percent}$$
$$= 100 \left[\frac{(Sum\,of\,EL\,Growth\,of\,all\,schools\,AZELLA\,FAY\,n - count\,to\,be\,eligible\,for\,points)}{No.\,of\,schools\,that\,have\,the\,necessary\,AZELLA\,FAY\,n - count\,to\,be\,eligible\,for\,points} \right]$$

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

STANDARDIZED	Range	Points
EL Growth is greater than or equal to the EL statewide mean current year percent growth.	40.83%	5
EL Growth is 0.01 to 0.50 standard deviations below the EL statewide mean current year percent growth.	31.8% – 40.82%	4
EL Growth is 0.51 to 1.00 standard deviations below the EL statewide mean current year percent growth.	22.76% – 31.79%	3
EL Growth is 1.01 to 2.00 standard deviations below the EL statewide mean current year percent growth.	4.69% – 22.75%	2
EL Growth is 2.01 to 3.00 standard deviations below the EL statewide mean current year percent growth.	0.001% – 4.68%	1
If a school's EL Growth is 0%, due to no growth.	0%	0

## Statistics and Graphs for EL Proficiency and Growth

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 43)

Summary Tables

	TotalELGrowthPoints	TotalELProficiencyPoints	ELProficiencyandGrowthPoints
Max	5.00	5.00	10.00
Mean	3.96	3.53	4.56
Min	2.00	0.00	0.00
Range	3.00	5.00	10.00
StdDev	1.03	1.49	4.05
StdErr	0.03	0.05	0.10
Var	1.06	2.22	16.44
Median	4.00	4.00	6.00
Q1	3.00	3.00	0.00
Q3	5.00	5.00	8.00
P1	2.00	0.00	0.00
P5	2.00	0.00	0.00
P10	2.00	2.00	0.00
P90	5.00	5.00	10.00
P95	5.00	5.00	10.00
P99	5.00	5.00	10.00

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Total English Language Growth Points

ADE Accountability on October 15, 2021
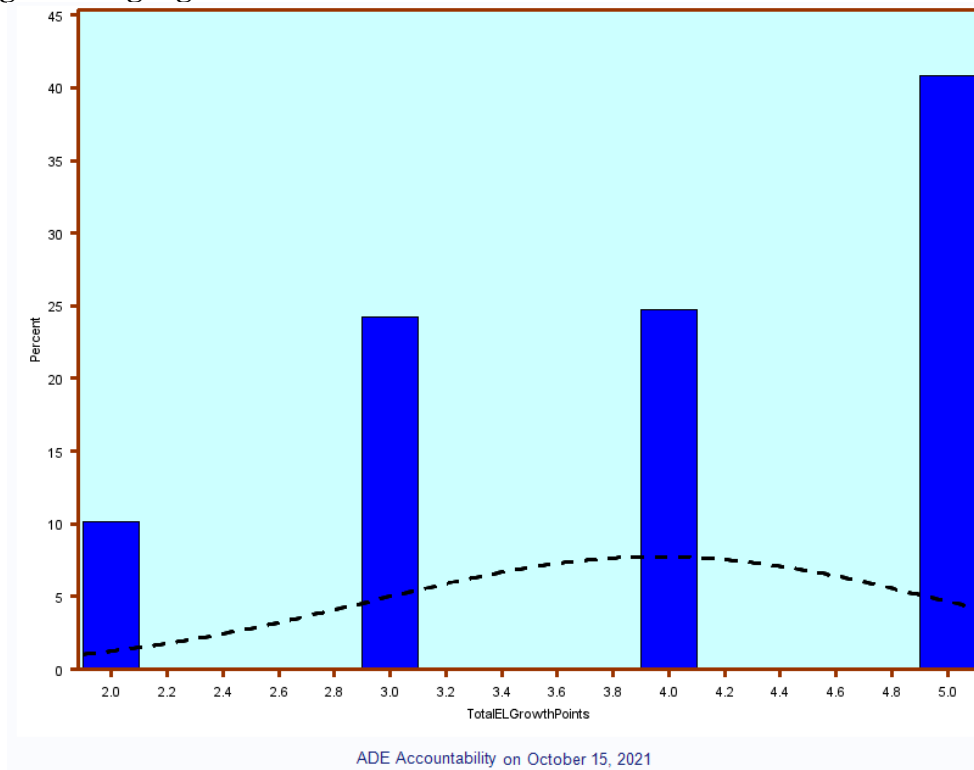
Total English Language Proficiency Points

ADE Accountability on October 15, 2021
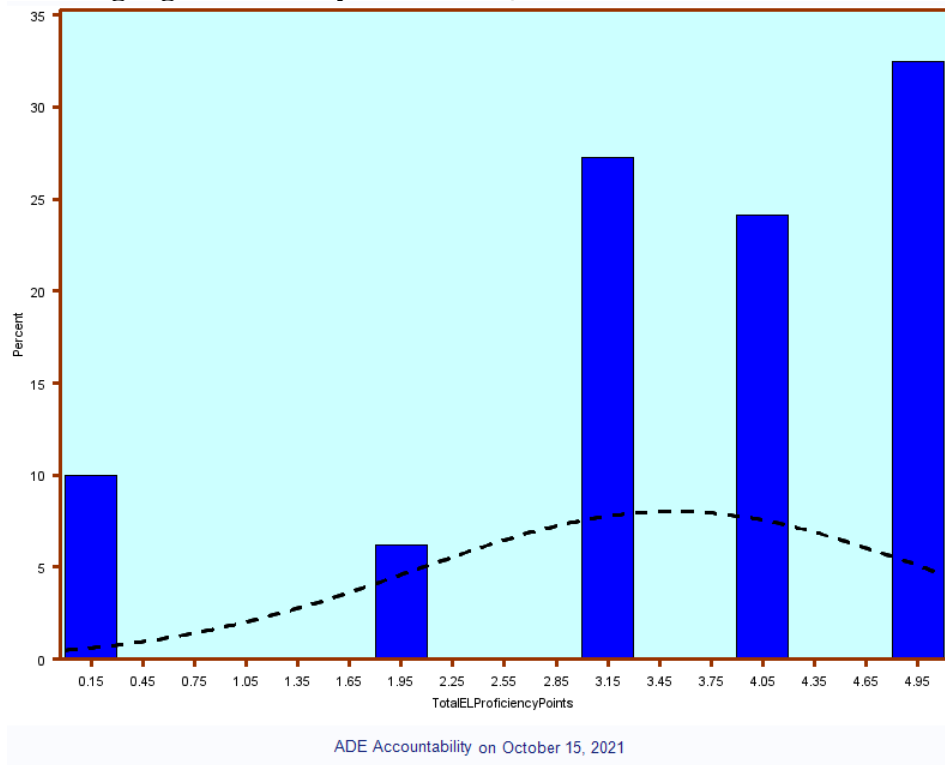
English Language Total Points Proficiency and Growth
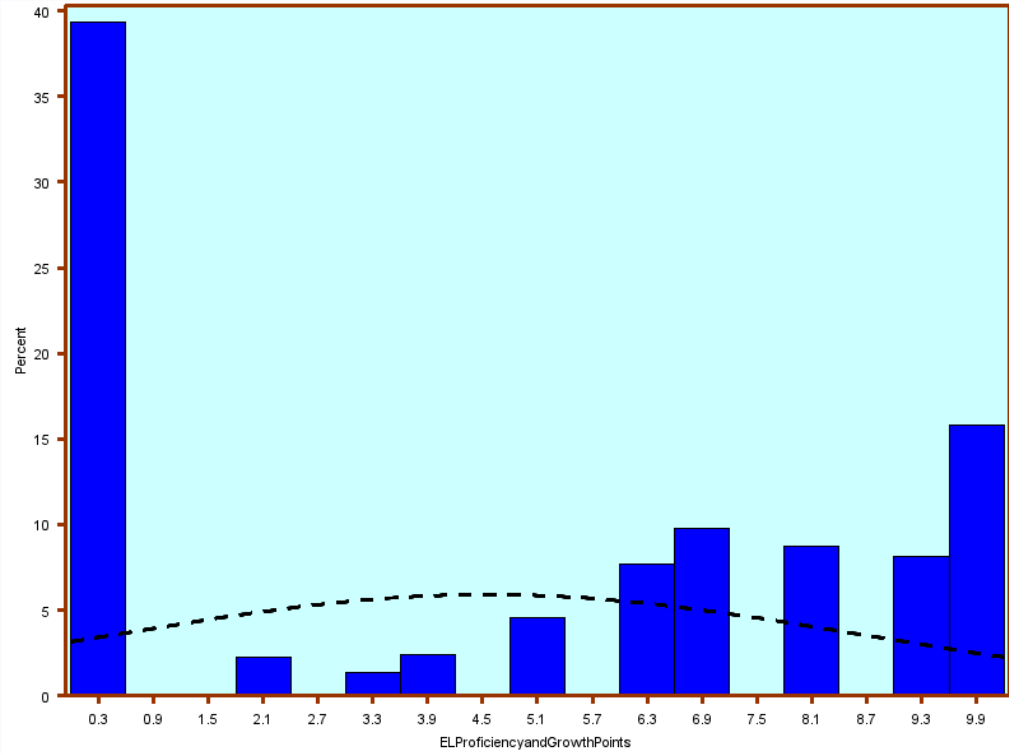
Acceleration/Readiness

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
Grade 8 Math Performance	✓	5
Grade 3 ELA Minimally Proficient	✓	5
Chronic Absenteeism	10 N-size FAY and non-FAY	2
Subgroup Improvement	By subgroup	2 points per subgroup up to 6 points total
Special Education Inclusion	✓	2

Acceration Readiness Proficiency comparisons in the current year will be compared to the 2018-2019 school year or the most recent assessment available. All other prior year comparisons included in the Acceleration/Readiness component are pulled over from the prior year's information. The only exception is Grade 8 Mathematics Performance as it is new in Fiscal Year 2021.

Grade 8 Mathematics Performance
COVID-19 Notification:
Calculation will remain the same, as suggested by the Technical Advisory Committee, due to no letter grades being awarded. However, the comparison will be to the state assessment results from the 2018-2019 school year.

The intent of this metric is to incentivize schools to increase their percent highly proficient and decrease their percent minimally proficient on the Grade 8 AzM2/MSAA Mathematics assessment annually. The calculations include any FAY student who takes the Grade 8 AzM2/MSAA Mathematics assessment in Fiscal Year 2020. Schools can earn points for either the increase of highly proficient, the decrease of minimally proficient, and/or maintaining applicable thresholds of highly proficient and minimally proficient students. It is possible for a school to earn only 2.5 points for meeting highly proficient or minimally proficient criteria or 5 points for meeting both highly proficient and minimally proficient criteria.

Note that in Fiscal Year 2020, the prior year calculations include all mathematics assessments taken by 8th grade students including grade 8 (AzMERIT/MSAA) and EOC AzMERIT assessments.

The following formulas are used to calculate percentages for current year and prior year.

Increasing Highly Proficient

$$8th\ Grade\ CY\ Highly\ Proficient\% = 100\left[\frac{(No.of\ CY\ Grade\ 8\ FAY\ students\ that\ are\ HP\ on\ AzM2\ Math\ assessment)}{(Total\ CY\ FAY\ enrollment\ for\ Grade\ 8\ students)}\right]$$

$$8th\ Grade\ PY\ Highly\ Proficient\% = 100\left[\frac{(No.of\ PY\ Grade\ 8\ FAY\ students\ that\ are\ HP\ on\ AzMERIT\ Math\ assessment)}{(Total\ PY\ FAY\ enrollment\ for\ Grade\ 8\ students)}\right]$$

Decreasing Minimally Proficient

$$8th\ Grade\ CY\ Minimally\ Proficient\% = 100\left[\frac{(No.of\ CY\ Grade\ 8\ FAY\ students\ that\ are\ MP\ on\ AzM2\ Math\ assessment)}{(Total\ CY\ FAY\ enrollment\ for\ Grade\ 8\ students)}\right]$$

$$8th\ Grade\ PY\ Minimally\ Proficient\% = 100\left[\frac{(No.of\ PY\ Grade\ 8\ FAY\ students\ that\ are\ MP\ on\ AzMERIT\ Math\ assessment)}{(Total\ PY\ FAY\ enrollment\ for\ Grade\ 8\ students)}\right]$$

The following details how points are earned.

Grade 8 Mathematics Performance Points (0, 2.5, or 5 points)
- A school's current year percentage of students who take the 8th grade math assessment and score highly proficient is greater than the school's prior year percentage of students who take an 8th grade math assessment and score highly proficient = 2.5 points
- A school's current year percentage of students who take the 8th grade math assessment and score highly proficient is greater than or equal to 60% = 2.5 points
- A school's current year percentage of students who take the 8th grade math assessment and score minimally proficient is less than the school's prior year percentage of students who take an 8th grade math assessment and score minimally proficient = 2.5 points
- A school's current year percent of students who take the 8th grade math assessment and score minimally proficient is less than or equal to 10% = 2.5 points

Grade 3 ELA Reduction in FAY Minimally Proficient
COVID-19 Notification:
Calculation will remain the same, as suggested by the Technical Advisory Committee, due to no letter grades being awarded. However, the comparison will be to the state assessment results from the 2018-2019 school year.

The intent of this metric is to reduce the percentage of grade 3 students who are minimally proficient on AzM2 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

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

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

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
COVID-19 Notification:
Calculation will remain the same, as suggested by the Technical Advisory Committee, due to no letter grades being awarded.

The intent of this metric is to reduce the school's chronic absenteeism percentage from prior year to current year. This calculation includes grades 1-8 students. Students who are flagged as chronically ill in AzEDS are removed from the chronic absenteeism calculation. All absences reported for a student whether excused or unexcused are included. 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

COVID-19 Notification:

Calculation will remain the same, as suggested by the Technical Advisory Committee, due to no letter grades being awarded. However, the comparison will be to the state assessment results from the 2018-2019 school year.

The intent of this metric is to see annual improvement in subgroup (SG) proficiency in AzM2 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. Special Education
9. Economically Disadvantaged
10. Parent in Military
11. EL and FEP1-4
12. Homeless
13. Foster care

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 prior year. If a school meets the N-Size for all subgroups, they would have 26 chances (13 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.

$$SG\ CY\ Proficiency\ \% = 100\left[\frac{\begin{array}{l}((No.\,of\ CY\ FAY\ students\ in\ the\ SG\ that\ are\ PP\ on\ AzM2\ or\ MSAA)0.6)\\+((No\ of\ CY\ FAY\ students\ in\ the\ SG\ that\ are\ P\ on\ AzM2\ or\ MSAA)1.0)\\+((No.\,of\ CY\ FAY\ students\ in\ the\ SG\ that\ are\ HP\ on\ AzM2\ or\ MSAA)1.3)\end{array}}{(Total\ CY\ FAY\ students\ in\ the\ SG\ who\ took\ the\ test)}\right]$$

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

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 (9.17%) 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 greater than 9.17% of their FAY population in special education spending 80%+ of their day in the general education classroom receive points

Statistics and Graphs for Acceleration and Readiness

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (see pages 43)

Summary Tables

	ChronicAbsenteeism	Grade3ELAMP	MathHPpoints	MathMPpoints	SpecialEducationInclusion	SubgroupImprovement	TotalARPoints
Max	2.00	5.00	2.50	2.50	2.00	6.00	10.00
Mean	0.25	0.74	0.52	0.40	1.03	2.44	4.30
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Range	2.00	5.00	2.50	2.50	2.00	6.00	10.00
StdDev	0.66	1.77	1.01	0.92	1.00	2.37	3.18
StdErr	0.02	0.05	0.04	0.04	0.03	0.06	0.08
Var	0.44	3.14	1.03	0.84	1.00	5.63	10.13
Median	0.00	0.00	0.00	0.00	2.00	2.00	4.00
Q1	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Q3	0.00	0.00	0.00	0.00	2.00	4.00	6.50
P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P90	2.00	5.00	2.50	2.50	2.00	6.00	9.00
P95	2.00	5.00	2.50	2.50	2.00	6.00	10.00
P99	2.00	5.00	2.50	2.50	2.00	6.00	10.00

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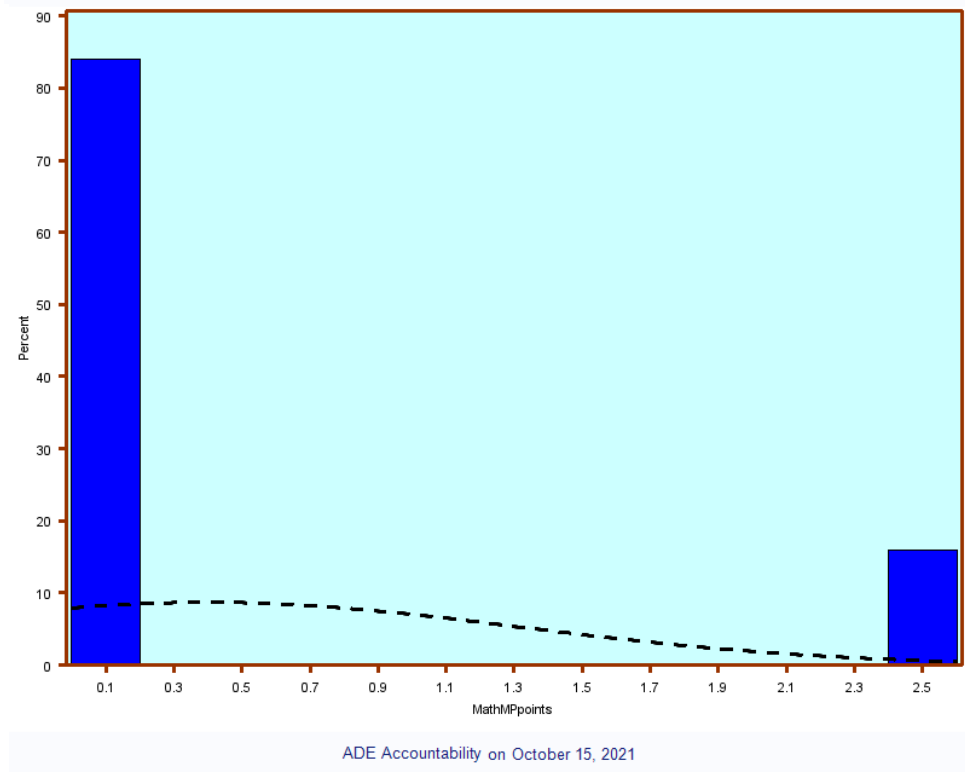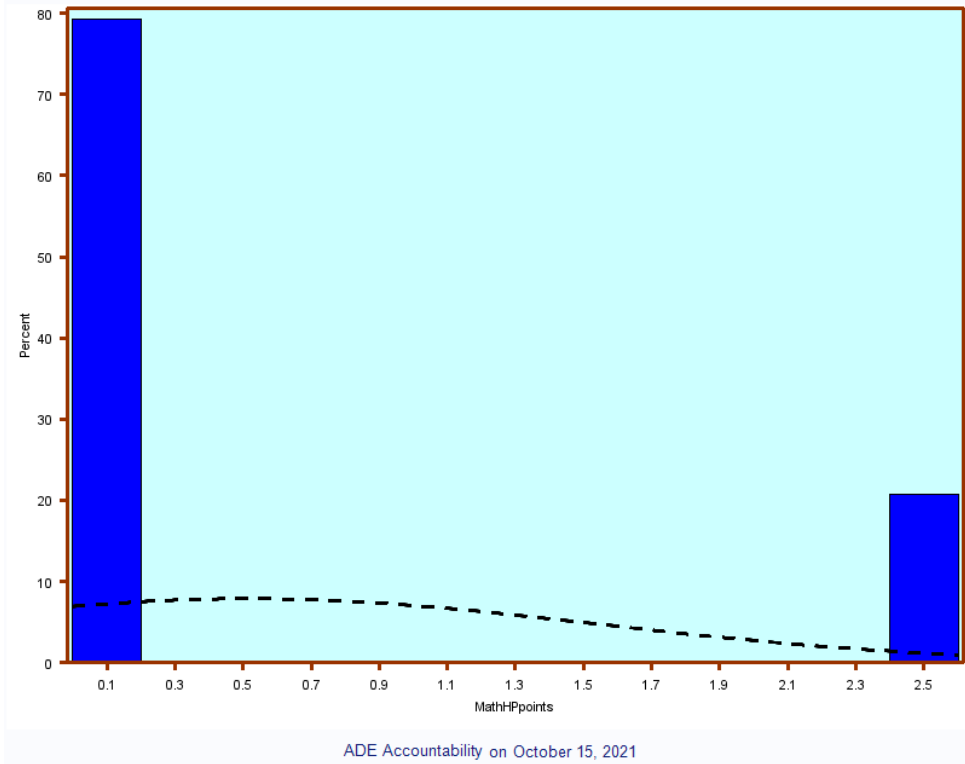
Acceleration Readiness: Chronic Absenteeism
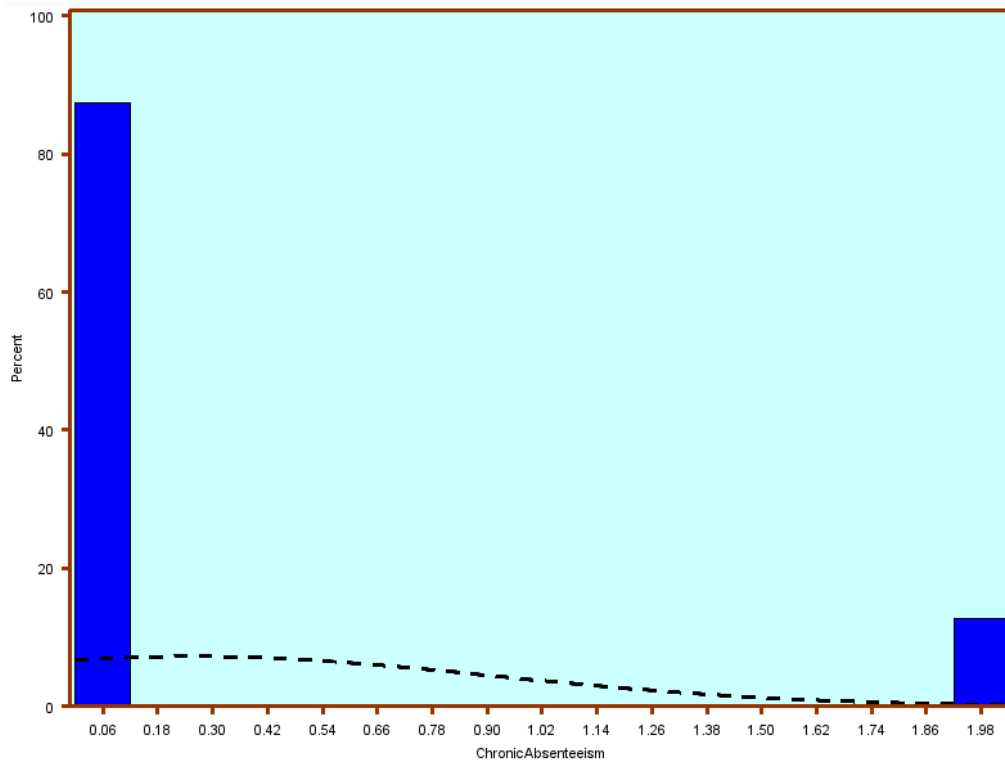
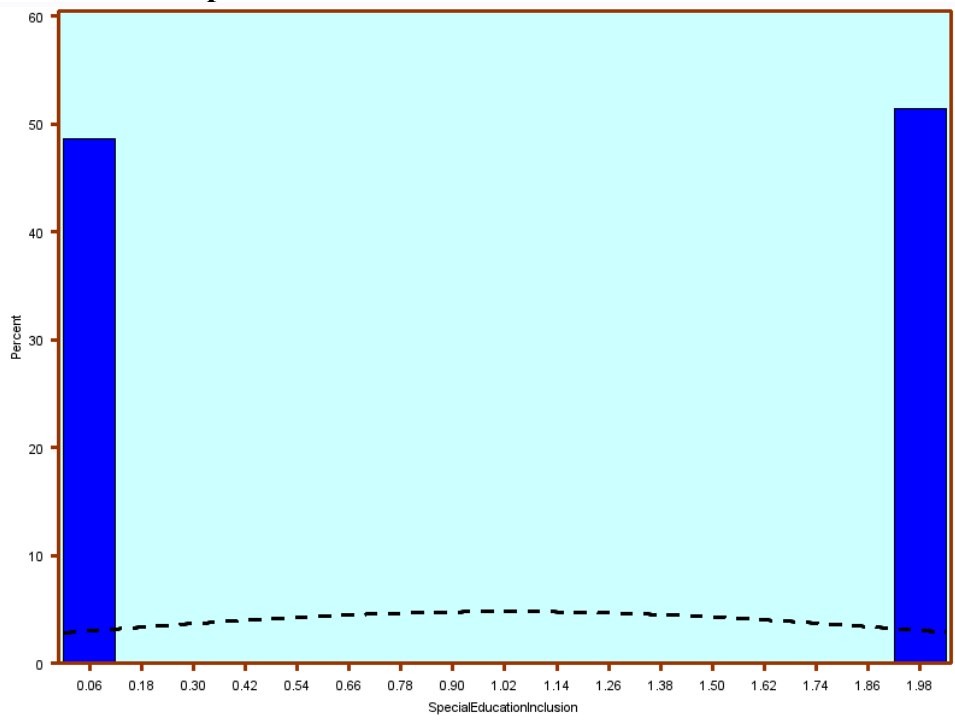## Acceleration Readiness: Grade 3 Reduction in Minimally Proficienct
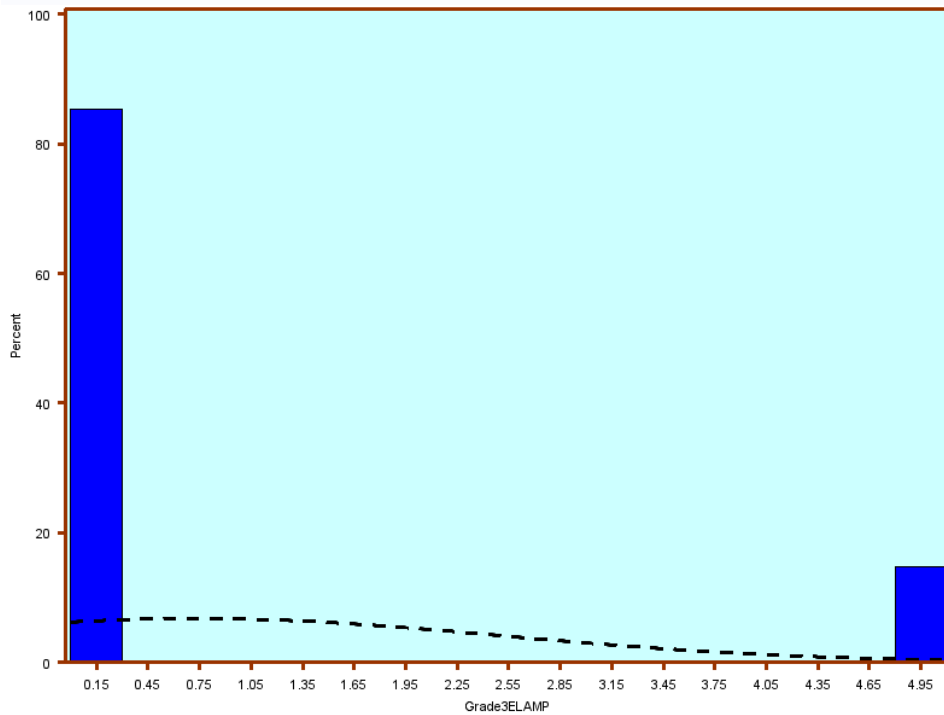
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Acceleration Readiness: Grade 8th Math Increase HP Decrease MP

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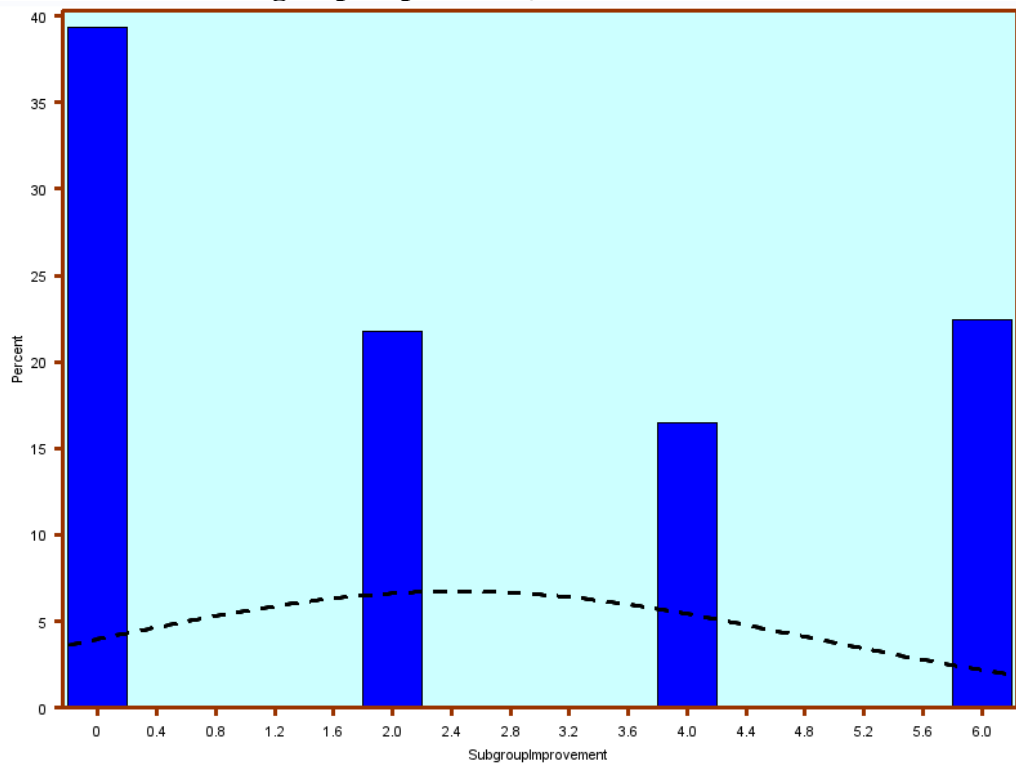

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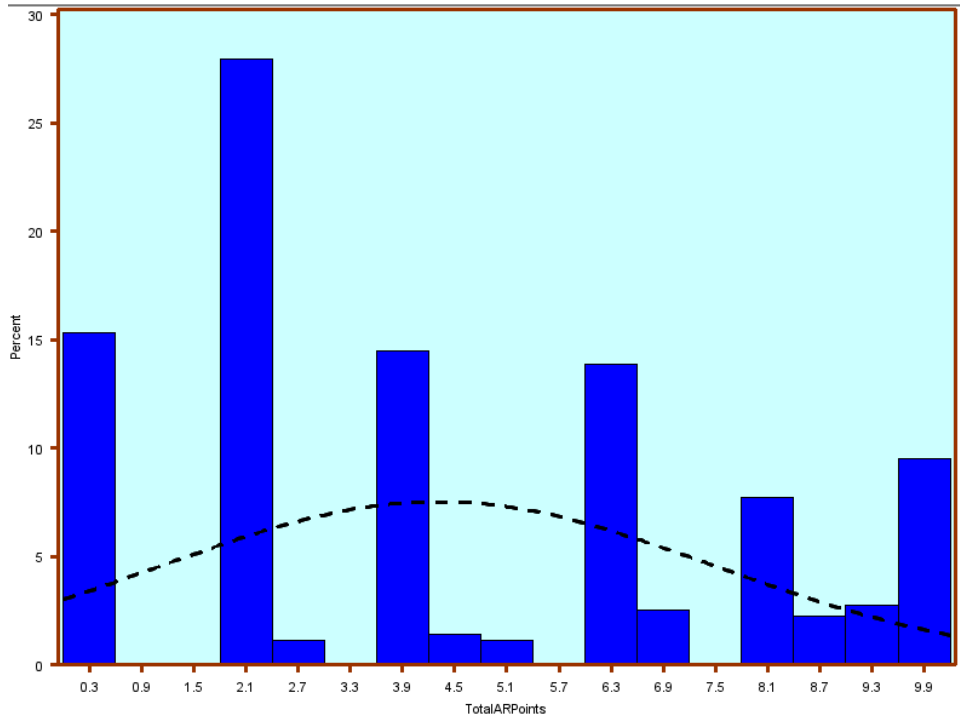## Acceleration Readiness: Special Education Inclusion

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Acceleration Readiness: Subgroup Improvement

Acceleration Readiness: Total Points Earned

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Bonus Points

Schools can earn bonus points two different ways.

Special Education Enrollment

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

The following formulas are used for the calculations:

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

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

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

Points are awarded based on the following:

Bonus Points	Range
2	At or above 80% of the statewide average (9.89%)
1.5	At 70% to 79% of the statewide average (8.65% – 9.88%)
1	At 60% to 69% of the statewide average (7.42% – 8.64%)
0	Below 60% of the statewide average (7.42%)

Science Proficiency

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

The following details how points are earned.

Science Proficiency Bonus Points (0, 1.5 or 3 points)
- A school's current year percent tested is greater than or equal to 95% = 3 points
- A school's current year percent tested is greater than or equal to 90% and less than 95% = 1.5 points

Statistics and Graphs for Bonus Points

For meaning of terms please see Appendix: List of Statistical Summary Tables and Graph Definitions (pages 43)

Summary Tables

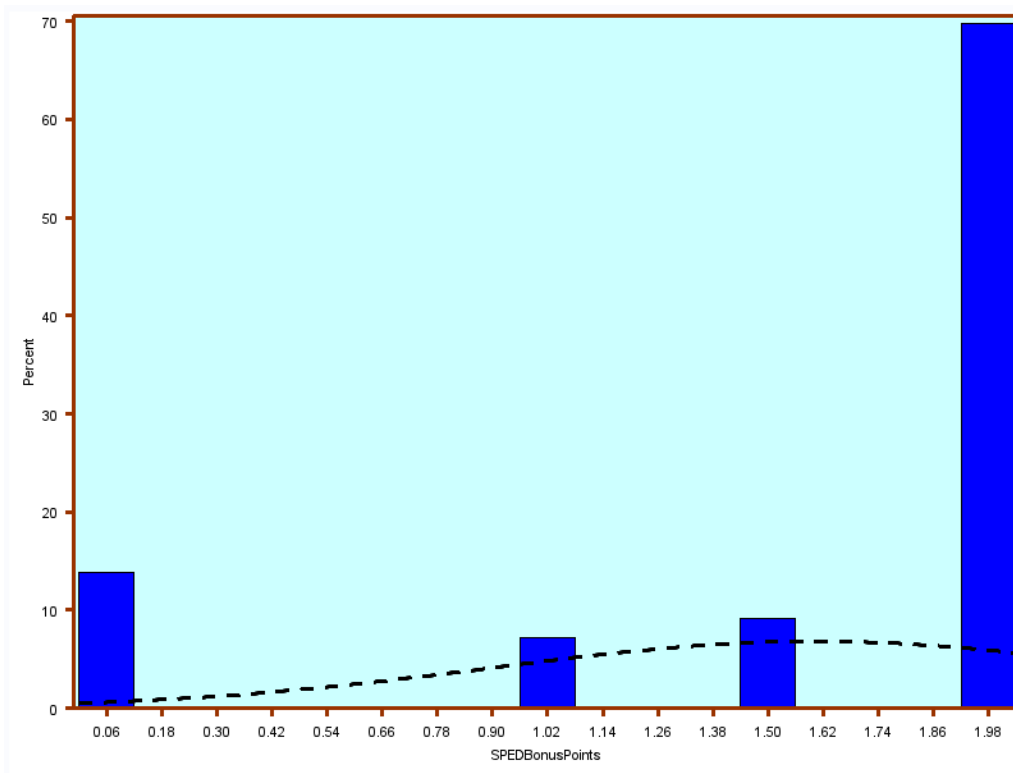|	scibonuspoints	SPEDBonusPoints	TotalBonusPoints
Max	3.00	2.00	5.00
Mean	1.46	1.60	3.08
Min	0.00	0.00	0.00
Range	3.00	2.00	5.00
StdDev	1.33	0.70	1.41
StdErr	0.03	0.02	0.04
Var	1.77	0.49	1.99
Median	1.50	2.00	3.00
Q1	0.00	1.50	2.00
Q3	3.00	2.00	4.50
P1	0.00	0.00	0.00
P5	0.00	0.00	1.00
P10	0.00	0.00	1.50
P90	3.00	2.00	5.00
P95	3.00	2.00	5.00
P99	3.00	2.00	5.00

ADE Accountability on October 15, 2021
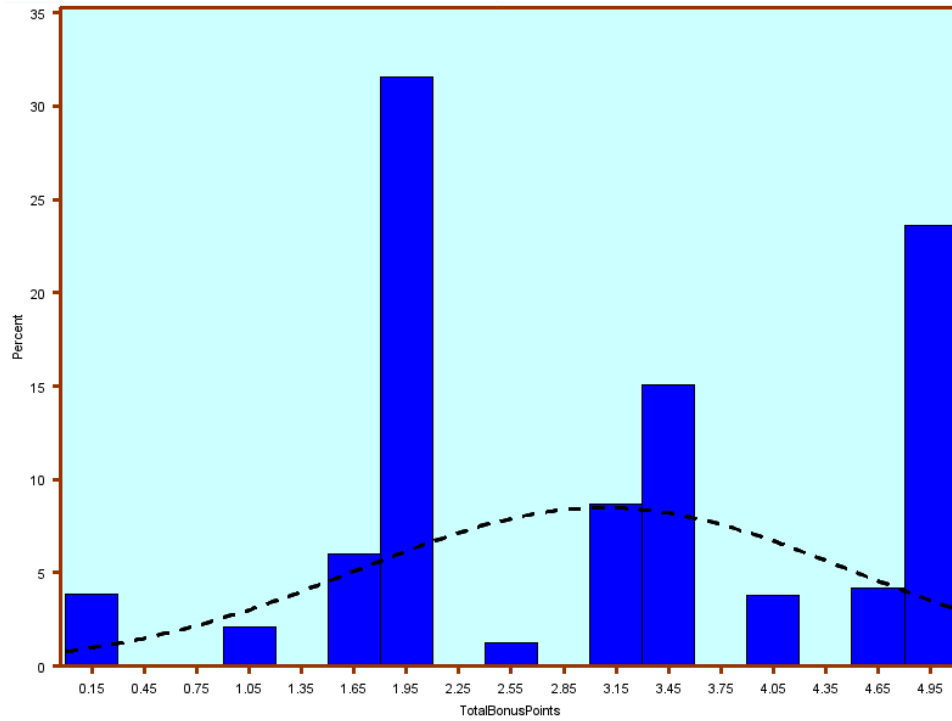
Bonus Points: Science Participation
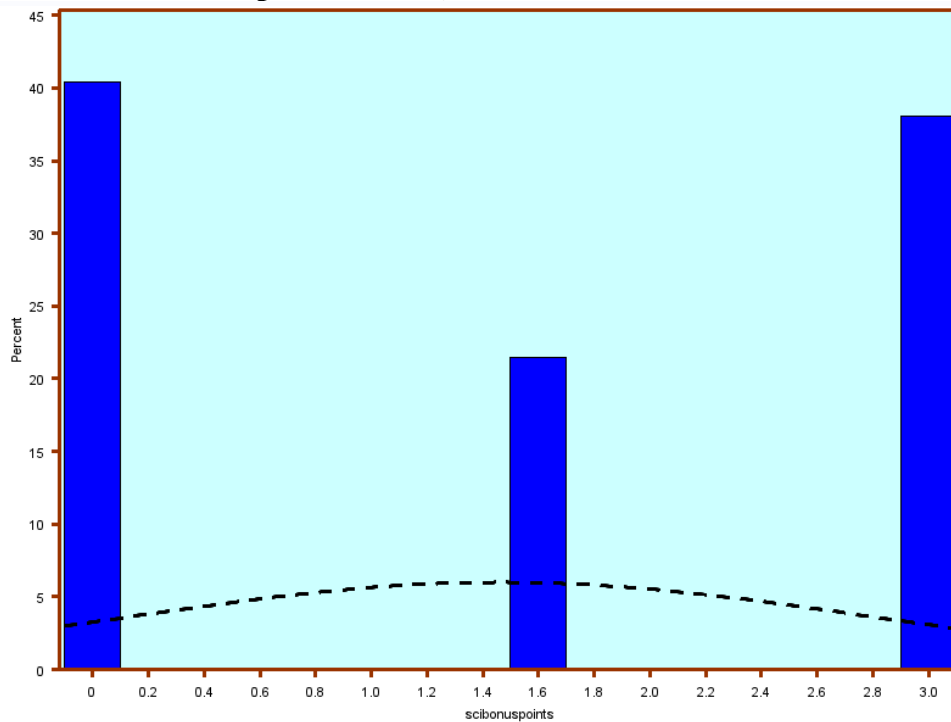
ADE Accountability on October 15, 2021

Bonus Points: Special Education Enrollment

Bonus Points: Total Points Earned

ADE Accountability on October 15, 2021

Calculating Total Points

COVID-19 Notification:

On February 15, 2021 Governor Doug Ducey signed into law HB2402. The law addressed testing and accountability for the current school year. Therefore, there will be no calculation for total points or letter grades.

Appendix

List of Acronyms and Abbreviations

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

List of Statistical Summary Tables and Graph Definitions

Term	Full Name	Definition
Max	maximum	The largest observation
Min	minimum	The smallest observation
Mean	aka "average"	The sum of all numbers divided by the number of observations
Range	range	The difference between the lowest and highest value
StdDev	standard deviation	Is a measure of the amount of variation or dispersion of a set of values
StdErr	standard error	Is the standard deviation of its sampling distribution or an estimate of that standard deviation
Var	variance	Is the expectation of the squared deviation of a random variable from its mean
Median	median	The middle observation in a set of data
Q1	quartile one (first quartile)	A number for which 25% of the data is less than that number
Q3	quartile three (third quartile)	A number for which 75% of the data is less than that number
P1	1st percentile	Is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. Only 1% of observations are below this number.
P5	5th percentile	Is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. Only 5% of observations are below this number
P10	10th percentile	Is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. Only 10% of observations are below this number
P90	90th percentile	Is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. 90% of observations are below this number
P95	95th percentile	Is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. 95% of observations are below this number
P99	99th percentile	Is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. 99% of observations are below this number

Change Log

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