

Traditional and Small Schools Methodology

Presented below are each of the indicators (general categories of academic performance) and measures (means to evaluate the indicators) included in the Arizona State Board for Charter Schools (ASBCS) academic performance framework. The appendix is divided into four sections, representing the indicators in the academic framework:

- Student progress over time (Growth)
- Student achievement (Proficiency)
- A–F letter grade state accountability system
- Post-secondary readiness (for high schools)

Each section presents information specific to the measures used to evaluate a school’s performance in that indicator: a description, methodology, and target categories. For more detailed information on the measures and the rationale for their inclusion in the framework, refer to the body of the Academic Performance Framework and Guidance.

Measures requiring student-level data across the state are calculated by the Arizona Department of Education. Details of the data and analysis required for each measure are included below. For calculating rankings, all groups with 10 or more students were included in the identification of percentiles. For output, results for schools with fewer than 11 students in the given group were not reported in order to meet the requirements of FERPA.

Traditional school-level calculations include only full-academic-year (FAY) students. Calculations for small schools include the three-year pooling of students. The student test records for all FAY students for each of the three years will be included in the calculations.

Data

The following variables will be required for all students in the state in order to complete the academic performance framework for traditional and small ASBCS charter schools:

- Student identifier
- Grade level
- School ID
- Full Academic Year (FAY) designation
- Student growth percentile (SGP)—math—three years of results
- Student growth percentile (SGP)—reading—three years of results
- AIMS performance level—math
- AIMS performance level—reading
- Free and Reduced Lunch (FRL) designation
- English Language Learners (ELL) designation

- Special Education (SPED) designation
- Fully English Proficient (FEP) indicator
- Fully English Proficient (FEP) year

Additionally, the ASBCS will require the following information for all traditional and small ASBCS charter schools in the state:

- Graduation rate (high schools)
- State A–F letter-grade rating
- List of school IDs for all charter schools
- List of school IDs for all small charter schools

Student Progress over Time (Growth)

The framework includes two measures of student growth based on the Arizona Growth Model: school median student growth percentile (SGP) and school median SGP for students in the lowest 25 percent of performance on math and reading.

Arizona Growth Model

The Arizona State Board of Education adopted the Arizona Growth Model, based on the Student Growth Percentile Methodology first used in Colorado. This method provides an effective way to measure peer-referenced student growth. A student growth percentile (SGP) calculates a student’s progress in comparison with his or her academic peers—students with similar performance on previous assessments. Each individual student’s growth in assessment results is ranked against the growth for all students with the same test result on the baseline assessment. A student with an SGP of 50 demonstrated higher growth than half of his academic peers across the state with similar performance in current and past years. A school median SGP of 50 indicates that at least half of the students in the school showed more growth than half of their academic peers with similar performance across the state in past years.

In the state A–F School Accountability Letter Grade System, a three-year pooled SGP is calculated for small schools with fewer than 30 test records¹ in the current year. By aggregating three years’ worth of growth data, variability due to the very small number of students is reduced. The academic framework uses a similar method for small charter schools with fewer than 30 test records in either of the evaluated subjects (math or reading).²

¹ Includes both math and reading from current year students who meet the definition of FAY.

² The academic framework’s small school definition applies to schools that do not have at least 30 test records in math and at least 30 test records in reading from current year students who meet the definition of Full Academic Year (FAY). This difference between the state A–F Letter Grade Accountability System and the Board’s academic framework ensures the Board’s model, which disaggregates math and reading while the state A–F Letter Grade Accountability System aggregates the two subjects, minimizes variability due to student populations or very small numbers of students.

Measure 1.a. - Overall Growth (School Median Growth Percentile—SGP)

Are schools making adequate growth based on the school's median student growth percentiles (SGP) in reading and math?

School-level growth calculations include only FAY students for traditional schools.

The small-school model includes three years of pooled students; the student test records for FAY students in each of the three years will be included in the calculations.

- **Necessary data** School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (student-level file)
- Individual SGP for math and reading (student-level file)
- FAY designation (student-level file)
- List of school IDs for all charter schools
- List of school IDs for all small charter schools

These items are required for three years, in order to calculate pooled three-year calculations for small schools.

Methodology (carried out separately for math and reading)

Step 1: Remove duplicate records.

- Sort the student-level file.*** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.
- Identify any duplicate records based on student identifier.*** Among students in traditional and small schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2: Calculate the median SGP for all FAY students in each ASBCS charter school. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years.

Step 3: Apply targets to assign performance category.

Targets (applied to both math and reading)

Rating Category	Target Description
<i>Exceeds Standard</i>	The school median SGP is ≥ 66 .
<i>Meets Standard</i>	The school median SGP is ≥ 50 , but < 66 .
<i>Does Not Meet Standard</i>	The school median SGP is ≥ 34 , but < 50 .
<i>Falls Far Below Standard</i>	The school median SGP is < 34 .

Measure 1.b. – Growth of the Lowest-Performing Students (Student Median Growth Percentile Bottom 25%)

Are the lowest-performing students making adequate growth based on the median student growth percentiles (SGP) of the lowest 25% of students in reading and math?

The framework assesses each school’s median growth percentile for the lowest 25% of students in reading and in math. This percentage may be different from that calculated and published for A–F Letter Grades because the reading and math median growth percentiles are calculated separately in the ASBCS academic framework, but are reported as a combined result in the A–F Letter Grade workbook.

School-level growth calculations include only FAY students.

The data for small schools is pooled over three years; the student test records for all FAY students in each of the three years will be included in the calculations.

Necessary data

- School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (student-level file)
- Individual SGP for math and reading (student-level file)
- FAY designation (student-level file)
- Previous year’s AIMS scale score for math and reading (student-level file)
- List of school IDs for all charter schools
- List of school IDs for all small charter schools

*These items are required for **three years**, in order to calculate pooled three-year calculations for small schools.*

Methodology (carried out separately for math and reading)

The bottom 25% results include only students with valid AIMS scores in the current and previous year.

Step 1: Remove duplicate records.

- A. **Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.

- B. **Identify any duplicate records based on student identifier.** Among students in traditional and small schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination.

Step 2: Identify the bottom 25% of FAY students in each ASBCS charter school, based on previous year’s AIMS score. (Calculated separately for math and reading.) For each traditional ASBCS charter school complete calculation only for the current year. For each small ASBCS charter school complete calculation for the current year and the two prior years.

- A. **Remove records without an available AIMS scale score in the previous year.**
- B. For grades 4 through 10, **calculate the difference between the previous year’s AIMS scale score and the previous year’s proficiency benchmark** (the cutoff for proficiency, based on subject and grade). (For 10th-grade students, the 8th-grade result is used for the previous year’s scale score.)
- C. **Create an adjusted “difference score”** by adding the difference calculated in (A) to the product of the AIMS performance level and multiply by 1000.
- D. **Rank each student in each school** by the adjusted difference score calculated in (B).
- E. **Identify the lowest quartile, or 25%, of grades 4 through 10 students in each school.**
- F. **Identify the lowest quartile, or 25%, of grade 3 students based on the previous year’s grade 2 Stanford 10 scale scores.**
- G. **Combine the students in (D) and (E) to identify the lowest 25% of students in the school.**

Step 3: Calculate the median SGP for all FAY students in the bottom 25% of each ASBCS charter school. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years.

Step 4: Apply targets to assign performance category.

Targets (applied to both math and reading)

Rating Category	Target Description
<i>Exceeds Standard</i>	The school median SGP for the lowest 25% of students is ≥ 66 .
<i>Meets Standard</i>	The school median SGP for the lowest 25% of students is ≥ 50 , but < 66 .
<i>Does Not Meet Standard</i>	The school median SGP for the lowest 25% of students is ≥ 34 , but < 50 .
<i>Falls Far Below Standard</i>	The school median SGP for the lowest 25% of students is < 34 .

Student Achievement (Proficiency)

The academic framework includes three measures of student achievement, or proficiency. Overall school proficiency rates in math and reading are evaluated against statewide proficiency rates (Measure 2a), as well as a comparison to statewide proficiency rates for demographically similar student populations (Measure 2b), and an evaluation of proficiency rates for FRL, ELL, and SPED subgroups (Measure 2c).

Since proficiency rates vary by grade level, the framework weights the school's average proficiency score by grade-level enrollment. A charter school that serves grades 3–8 would be compared to the percentage of students statewide in grades 3–8 who are deemed proficient, with each grade “counting” in proportion to the fraction of all students enrolled in that grade at the charter school. If a student is tested as a FAY student twice in the same year, the higher of the two scores is used.

In the state A–F School Accountability Letter Grade System, a three-year pooled proficiency rate is calculated for small schools with fewer than 30 test records³ in the current year. By aggregating three years' worth of growth data, variability due to the very small number of students is reduced. The academic framework uses a similar method for small charter schools with fewer than 30 test records in either of the evaluated subjects (math or reading).⁴

Measure 2.a. Percent Passing

Are students achieving proficiency on state examinations in reading and math?

In calculating **state-level** proficiency, both FAY and non-FAY students are used. In calculating **school-level** proficiency, only FAY students are used. State-level data is aggregated by school type, meaning traditional schools are compared to state-level measures based only on traditional schools, and small schools are compared to state-level measures based only on small schools.

The small-school model includes three years of pooled students; the student test records for all FAY students for each of the three years will be included in the calculations.

To account for grade-level differences in proficiency rate, the framework weights the state comparison rates by grade-level enrollment at the charter school. For example, if 27 percent of students at the charter school are in the third grade, third-grade state results will count for 27 percent of the state average used in comparison to that charter school.

³ Includes both math and reading from current year students who meet the definition of FAY.

⁴ The academic framework's small school definition applies to schools that do not have at least 30 test records in math and at least 30 test records in reading from current year students who meet the definition of Full Academic Year (FAY). This difference between the state A–F Letter Grade Accountability System and the Board's academic framework ensures the Board's model, which disaggregates math and reading while the state A–F Letter Grade Accountability System aggregates the two subjects, minimizes variability due to student populations or very small numbers of students.

Necessary data

- School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (student-level file)
- Grade level (student-level file)
- FAY designation (student-level file)
- AIMS performance level in reading and math (student-level file)
- List of school IDs for all traditional charter schools
- List of school IDs for all small charter schools

Methodology (carried out separately for math and reading)

Step 1: Remove duplicate records.

- Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.
- Identify any duplicate records based on student identifier.** Among students in traditional and small schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2: Calculate the overall proficiency rate for all FAY students for each ASBCS charter school. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years. Divide the number of proficient FAY students at the school by the total number of FAY students at the school with a valid assessment score.

Step 3: Calculate the average statewide proficiency rate for FAY and non-FAY students for each grade included in state assessment testing. Calculate separately for traditional schools and small schools. For the traditional school statewide proficiency rate use only data from the current year. For the small school statewide proficiency rate use data from the current year and the two prior years. At each grade level, divide the number of proficient FAY and non-FAY students statewide by the total number of FAY and non-FAY students with a valid assessment score statewide. Repeat the same process for every grade.

Step 4: Count the number of FAY students tested at each grade level in each of the ASBCS charter schools. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years.

Step 5: For each ASBCS charter school, calculate an average state proficiency rate for *FAY* and *non-FAY* students weighted to the charter school grade-level enrollment. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were *FAY* in each of the applicable years.

1. For each grade served by the charter school, multiply the state average proficiency rate for the grade level (calculated in step 3) by the *FAY* number tested in that grade at the charter school (calculated in step 4).
2. Sum the resulting products for each grade level that the school serves (calculated in step 5-1) and divide by the total number of *FAY* students tested in the charter school (see Table 1). The result is a ***weighted state average*** that reflects the grade-level composition of the charter school.

Table 1. Example of weighting the state results to grade-level number tested at the charter school

Grade level	Number tested at charter school	Percentage of students meeting proficiency statewide
3	0	51%
4	0	60%
5	0	55%
6	0	53%
7	0	65%
8	0	75%
10	288	60%
11	135	65%
12	134	75%
Total	557	--
State average weighted to charter school grade-level number tested = 64.82% $\frac{(288 \times 60\%) + (135 \times 65\%) + (134 \times 75\%)}{557}$		

Step 6: Calculate 90th and 20th percentile grade-level proficiency rates of *FAY* students statewide.

Calculate separately for traditional schools and small schools. For the traditional school statewide grade-level proficiency rate use only data from the current year. For the small school statewide grade-level proficiency rates use data from the current year and the two prior years.

1. For all schools in the state, calculate the grade-level proficiency rates of *FAY* students. At each grade level, divide the number of proficient *FAY* students at the school by the total number of *FAY* students at the school with a valid assessment score. Repeat the same process for every grade.
2. At each grade level, rank all schools in the state serving that grade by grade-level proficiency rate of *FAY* students (calculated in step 6-1). Repeat the same process for every grade.

3. At each grade level, identify the proficiency rate at the 90th percentile of schools statewide. For example, if 100 schools enroll and test students in the third grade, the model ranks all of these schools by the third-grade proficiency rate and identifies the percent of proficient students at the 90th percentile (the 90th-highest rate in the state). Repeat the same process for every grade.
4. At each grade level, identify the proficiency rate at the 20th percentile of schools statewide. For example, if 100 schools enroll and test students in the third grade, the model ranks all of these schools by the third-grade proficiency rate and identifies the percent of proficient students at the 20th percentile (the 20th-highest rate in the state). Repeat the same process for every grade.

Step 7: Calculate an average state proficiency rate of highest-performing statewide schools, weighted to the charter school grade-level enrollment. For traditional schools use only data from the current year. For the small schools use data from the current year and the two prior years.

1. For each grade served by the charter school, multiply the number of FAY students tested in the grade (calculated in step 4) by the proficiency rate at the 90th percentile for that grade statewide (calculated in step 6-3). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 7-1) and divide by the total number of FAY students tested in the charter school. The result is the **weighted 90th-percentile comparison**.

Step 8: Calculate an average state proficiency rate of lowest-performing statewide schools, weighted to the charter school grade-level enrollment. For traditional schools use only data from the current year. For the small schools use data from the current year and the two prior years.

1. For each grade served by the charter school, multiply the number of students tested in the grade (calculated in step 4) by the proficiency rate at the 20th percentile for that grade statewide (calculated in step 6-4). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 8-1) and divide by the total number of FAY students tested in the charter school. The result is the **weighted 20th-percentile comparison**.

Step 8: Apply targets to assign performance category.

Targets (applied to both math and reading)

The framework assigns rating categories based on two factors: 1) comparison of the school's FAY proficiency rate to the weighted state average FAY and non-FAY proficiency rate, and 2) comparison of the school's FAY proficiency rate to proficiency rates for schools at the 90th and 20th percentile rankings (based on FAY students). Targets are assigned as follows:

Rating Category	Target Description
<i>Exceeds Standard</i>	School's proficiency rates are in the top 10% of statewide performance OR the school's proficiency rates are at least 90%.
<i>Meets Standard</i>	School's proficiency rates meet or exceed average statewide performance but fall below the top 10% and the school's proficiency rates are below 90%.
<i>Does Not Meet Standard</i>	School's proficiency rates fall below average statewide performance but are above the bottom 20%.
<i>Falls Far Below Standard</i>	School's proficiency rates are in the bottom 20% of statewide performance.

Measure 2.b. Composite School Comparison

Are students performing as expected on state examinations in reading and math given the characteristics of the school's population?

The framework compares FAY student performance at the charter school to student performance at a "composite" school composed of statewide FAY and non-FAY student-level records matched to each student in the charter school based on student demographics and grade level. For traditional schools, only students enrolled in traditional schools statewide are included in the composite. For small schools, only students enrolled in small schools statewide are included in the composite.

The small-school model includes three years of pooled students; the student test records for all FAY students for each of the three years will be included in the calculations.

Necessary data

- School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (subject-level file)
- Grade level (student-level file)
- FAY designation (student-level file)
- FRL designation (student-level file)
- ELL designation (student-level file)
- FEP designation (student-level file)
- FEP year (student-level file)
- SPED designation (student-level file)
- AIMS performance level (student-level file)
- List of school IDs for all traditional charter schools
- List of school IDs for all small charter schools

Methodology (carried out separately for math and reading)

Note. To have membership in the ELL subgroup, a student must be labeled as ELL or labeled as Fully English Proficient (FEP) for fewer than three years ($FEP_{year} < 3$).

Step 1: Remove duplicate records.

- A. **Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.
- B. **Identify any duplicate records based on student identifier.** Among students in traditional and small schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2. Count the number of FAY students in each subgroup (FRL, ELL, or SPED) or combination of subgroups tested at each grade level in each of the ASBCS charter schools. If a student has membership in more than one subgroup, they cannot also have membership in the respective subgroups that make up that combination. For example, if a student has membership in the FRL and ELL subgroups, they can only be in the combined subgroup (FRL+ELL) but not subgroups that are exclusively FRL and ELL. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years.

Note. To have membership in the ELL subgroup, a student must be labeled as ELL or labeled as Fully English Proficient (FEP) for fewer than three years ($FEP_{year} < 3$).

Table 2. Example of counting the number of FAY students in each subgroup (FRL, ELL, or SPED) or combination of subgroups tested at each grade level in the charter school

	Number tested by grade—charter school								
	3rd	4th	5th	6th	7th	8th	10th	11th	12th
SPED	0	0	0	0	0	0	8	5	5
FRL	0	0	0	0	0	0	124	50	50
ELL	0	0	0	0	0	0	4	1	0
SPED + FRL	0	0	0	0	0	0	25	8	8
SPED + ELL	0	0	0	0	0	0	7	0	1
FRL + ELL	0	0	0	0	0	0	10	3	0
SPED + FRL + ELL	0	0	0	0	0	0	3	0	1
No subgroup	0	0	0	0	0	0	107	68	69
Total students—557							288	135	134

Step 3. Calculate the average statewide proficiency rate for FAY and non-FAY students meeting each combination of subgroup designations for each grade included in state assessment testing. Calculate separately for traditional schools and small schools. For the traditional school statewide proficiency rate use only data from the current year. For the small school statewide proficiency rate use data from the current year and the two prior years. At each grade level, divide the number of proficient FAY and non-FAY students meeting each combination of subgroup designations statewide by the total number of FAY and non-FAY students meeting each combination of subgroup designations with a valid assessment score statewide. Repeat the same process for every grade.

Table 3. Example of statewide proficiency rates for FAY and non-FAY students meeting each combination of subgroup designations for each grade

State Proficiency by Grade									
Average proficiency:	3rd	4th	5th	6th	7th	8th	10th	11th	12th
SPED	68%	63%	56%	39%	38%	49%	40%	38%	39%
FRL	77%	79%	75%	67%	71%	75%	73%	69%	75%
ELL	66%	68%	65%	50%	55%	45%	57%	53%	60%
SPED + FRL	47%	43%	38%	22%	24%	29%	27%	28%	30%
SPED + ELL	44%	39%	41%	18%	10%	20%	21%	13%	15%
FRL + ELL	59%	46%	45%	30%	36%	42%	34%	39%	45%
SPED + FRL + ELL	43%	38%	37%	17%	9%	19%	20%	12%	15%
No subgroup	91%	92%	90%	88%	89%	90%	90%	86%	90%

Note: The example charter school enrolls only high school students, so only statewide results for these grades will be included in the composite school.

Step 4. For each ASBCS charter school, calculate a composite proficiency rate for FAY and non-FAY students based on the combination of subgroup designations weighted to the charter school grade-level enrollment. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years.

1. For each subgroup (FRL, ELL, or SPED) or combination of subgroups at each grade level served by the charter school, multiply the state average proficiency rate for the subgroup (FRL, ELL, or SPED) or combination of subgroups for the grade level (calculated in step 3) by the FAY number tested in that subgroup (FRL, ELL, or SPED) or combination of subgroups at that grade at the charter school (calculated in step 2).
2. Sum the resulting products for each subgroup (FRL, ELL, or SPED) or combination of subgroups at each grade level that the school serves (calculated in step 4-1) and divide by the total number of FAY students tested in the charter school (see Table 4). The result is a **composite proficiency rate** that reflects the demographic and grade-level composition of the charter school.

Table 4. Example of calculating a composite proficiency rate for FAY and non-FAY students based on the combination of subgroup designations weighted to the charter school grade-level enrollment

Subgroup	Grade	State-wide Proficiency	Number Tested	Expected Number of Students Proficient
SPED	10	40%	8	3.20
	11	38%	5	1.9
	12	39%	5	1.95
FRL	10	73%	124	90.52
	11	69%	50	34.5
	12	75%	50	37.5
ELL	10	57%	4	2.28
	11	53%	1	.53
	12	60%	0	0
SPED + FRL	10	27%	25	6.75
	11	28%	8	2.24
	12	30%	8	2.4
SPED + ELL	10	21%	7	1.47
	11	13%	0	0
	12	15%	1	.15
FRL + ELL	10	34%	10	3.40
	11	39%	3	1.17
	12	45%	0	0
SPED + FRL + ELL	10	20%	3	.60
	11	12%	0	0
	12	15%	1	.15
No subgroup	10	90%	107	96.30
	11	86%	68	58.48
	12	90%	69	62.1
				Total: 407.59
Composite proficiency rate = 73.17% $\frac{(\text{Total Expected Number of Students Proficient})}{(\text{Total Number of Students Tested})} = \frac{407.59}{557}$				

Step 5. Calculate the difference between the school overall proficiency rate (calculated for measure 2a) and the composite proficiency rate (calculated in step 4).

Step 7. Apply targets to determine rating category.

Targets (applied separately to math and reading)

The framework compares the charter school overall proficiency rate to the composite school proficiency rate. The criteria for each target are as follows:

Rating Category	Target Description
<i>Exceeds Standard</i>	School's actual proficiency rate exceeds the expected proficiency rate by 15 or more percentage points.
<i>Meets Standard</i>	School's actual proficiency rate meets or exceeds the expected proficiency rate by up to 15 percentage points.
<i>Does Not Meet Standard</i>	School's actual proficiency rate is less than the expected proficiency rate by up to 15 percentage points.
<i>Falls Far Below Standard</i>	School's actual proficiency rate is less than the expected proficiency rate by 15 or more percentage points.

Additional Considerations

The "exceeds" and "falls far below" categories for the composite schools comparison are defined by the size of the difference between the charter school's performance and the performance of similar schools. The framework defines the categories in increments of 15 percentage points which represents a relatively large gap in performance.

2.c. Subgroup Comparison

Are students in subgroups achieving proficiency on state examinations in reading and math compared to state subgroups?

The framework compares the proficiency rates of students belonging to typically underserved subgroups within the school to the proficiency rates of students in the same subgroups statewide. The framework evaluates performance of FRL students, ELLs, and students with disabilities if more than 10 students with a particular subgroup characteristic are enrolled at the charter school.

In calculating **state-level** proficiency, both FAY and non-FAY students are used. In calculating **school-level** proficiency, only FAY students are used. State-level data is aggregated by school type, meaning traditional schools are compared to state-level measures based only on traditional schools, and small schools are compared to state-level measures based only on small schools.

The small-school model includes three years of pooled students; the student test records for all FAY students for each of the three years will be included in the calculations.

To account for grade-level differences in proficiency rate, the framework weights the state comparison rates by grade-level enrollment at the charter school. For example, if 27 percent of students at the charter school are in the third grade, third-grade state results will count for 27 percent of the state average used in comparison to that charter school.

Unlike measure 2b, the subgroup comparison does not distinguish between students with *combinations* of subgroup memberships. Thus, students with membership in more than one subgroup (i.e., ELL and FRL) will be used in the computations for each of the respective subgroups that make up the combination (ELL and FRL as separate groups).

Necessary data

- School ID (student-level file)
- Grade level (student-level file)
- FAY designation (student-level file)
- FRL designation (student-level file)
- ELL designation (student-level file)
- FEP designation (student-level file)
- FEP year (student-level file)
- SPED designation (student-level file)
- AIMS performance level (student-level file)
- List of school IDs for all traditional charter schools
- List of school IDs for all small charter schools

Methodology (carried out separately for math and reading for each eligible subgroup – FRL, ELL, and SPED students)

Note. To have membership in the ELL subgroup, a student must be labeled as ELL or labeled as Fully English Proficient (FEP) for fewer than three years ($FEP_{year} < 3$).

Step 1: Remove duplicate records.

- Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.
- Identify any duplicate records based on student identifier.** Among students in traditional and small schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2: Calculate the overall proficiency rate for all FAY students in the subgroup for each ASBCS charter School. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years. Divide the number of proficient FAY students in the subgroup by the total number of FAY students in the subgroup with a valid assessment score.

Step 3: Calculate the average statewide proficiency rate for FAY and non-FAY students in the subgroup for each grade included in state assessment testing. Calculate separately for traditional schools and small schools. For the traditional school statewide proficiency rate use only data from the current year. For the small school statewide proficiency rate use data from the current year and the two prior years. At each grade level, divide the number of proficient FAY and non-FAY students in the subgroup statewide by the total number of FAY and non-FAY students in the subgroup with a valid assessment score statewide.

Step 4: Count the number of FAY students in the subgroup tested at each grade level in each of the ASBCS charter schools. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years.

Step 5: For each ASBCS charter school, calculate an average state proficiency rate for FAY and non-FAY students in the subgroup weighted to the charter school grade-level enrollment. For each traditional ASBCS charter school use only data from the current year. For each small ASBCS charter school use data from the current year and the two prior years, using the records of students that were FAY in each of the applicable years.

1. For each grade served by the charter school, multiply the state average proficiency rate for students in the subgroup for the grade level (calculated in step 3) by the number of FAY students in the subgroup tested in that grade at the charter school (calculated in step 4).
2. Sum the resulting products for each grade level that the school serves (calculated in step 5-1) and divide by the total number of FAY students in the subgroup tested in the charter school (see Table 5). The result is a **weighted subgroup state average** that reflects the grade-level composition of the students in the subgroup at the charter school.

Table 5. Example of weighting the ELL subgroup state results to grade-level number tested at the charter school

Grade level	Number of ELLs tested at charter school	Percentage of ELLs meeting proficiency statewide
3	0	66%
4	0	68%
5	0	65%
6	0	50%
7	0	55%
8	0	45%
10	24	57%
11	4	53%
12	2	60%
Total	30	--

State average for ELLs weighted to charter school grade-level number tested = 56.67%

$$\frac{(24 \times 57\%) + (4 \times 53\%) + (2 \times 60\%)}{30}$$

Step 6: Calculate 90th and 20th percentile grade-level proficiency rates of FAY students in the subgroup statewide. Calculate separately for traditional schools and small schools. For the traditional school statewide grade-level proficiency rate use only data from the current year. For the small school statewide grade-level proficiency rates use data from the current year and the two prior years.

1. For all schools in the state, calculate the grade-level proficiency rates of FAY students in the subgroup. At each grade level, divide the number of proficient FAY students in the subgroup at the school by the total number of FAY students in the subgroup at the school with a valid assessment score. Repeat the same process for every grade.
2. At each grade level, rank all schools in the state serving that grade by grade-level proficiency rate of FAY students in the subgroup (calculated in step 6-1). Repeat the same process for every grade.
3. At each grade level, identify the subgroup proficiency rate at the 90th percentile of schools statewide. For example, if 100 schools enroll and test students in the subgroup in the third grade, the model ranks all of these schools by the third-grade subgroup proficiency rate and identifies the percent of proficient students in the subgroup at the 90th percentile (the 90th-highest rate in the state). Repeat the same process for every grade.
4. At each grade level, identify the subgroup proficiency rate at the 20th percentile of schools statewide. For example, if 100 schools enroll and test students in the subgroup in the third grade, the model ranks all of these schools by the third-grade subgroup proficiency rate and identifies the percent of proficient students in the subgroup at the 20th percentile (the 20th-highest rate in the state). Repeat the same process for every grade.

Step 7: Calculate an average state subgroup proficiency rate of highest-performing statewide schools, weighted to the charter school grade-level subgroup enrollment. For traditional schools use only data from the current year. For the small schools use data from the current year and the two prior years.

1. For each grade served by the charter school, multiply the number of FAY students in the subgroup tested in the grade (calculated in step 5) by the subgroup proficiency rate at the 90th percentile for that grade statewide (calculated in step 6-3). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 7-1) and divide by the total number of FAY students in the subgroup tested in the charter school. The result is the **weighted 90th-percentile subgroup comparison**.

Step 8: Calculate an average state subgroup proficiency rate of lowest-performing statewide schools, weighted to the charter school grade-level subgroup enrollment. For traditional schools use only data from the current year. For the small schools use data from the current year and the two prior years.

1. For each grade served by the charter school, multiply the number of FAY students in the subgroup tested in the grade (calculated in step 4) by the subgroup proficiency rate at the 20th percentile for that grade statewide (calculated in step 6-4). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 8-1) and divide by the total number of FAY students in the subgroup tested in the charter school. The result is the ***weighted 20th-percentile subgroup comparison***.

Step 9: Apply targets for each eligible subgroup to assign performance category.

Targets (applied separately for math and reading)

The framework assigns rating categories based on two factors: 1) comparison of the school’s FAY proficiency rate of students in the subgroup to the weighted average statewide proficiency rate for FAY and non-FAY of students in the subgroup, and 2) comparison of the school’s FAY proficiency rate of students in the subgroup to proficiency rates for schools at the 90th and 20th percentile rankings (based on FAY students in the subgroup). Targets are assigned as follows:

Rating Category	Target Description
<i>Exceeds Standard</i>	School’s subgroup proficiency rate is in the top 10% of statewide subgroup performance.
<i>Meets Standard</i>	School’s subgroup proficiency rate meets or exceeds statewide subgroup performance, but falls below the top 10%.
<i>Does Not Meet Standard</i>	School’s subgroup proficiency rate falls below statewide subgroup performance, but is above the bottom 20%.
<i>Falls Far Below Standard</i>	School’s subgroup proficiency rate is in the bottom 20% of statewide subgroup performance.

Additional Considerations

The English Language Learners (ELL) measure includes Fluent English Proficient (FEP) students who are in year one or year two of monitoring.

If the number of students tested is less than 11, there will be no subgroup data available for ELL, FRL, and/or SPED. If a school is missing an individual measure, the weighting will be adjusted. For example, if there is no subgroup data available for one or two of the measures within 2c, the weighting will be distributed among the other subgroups within 2c. If there is no subgroup data available for any of the measures within 2c, the weighting will be distributed outside the measure but within the indicator (2a and 2b).

State Accountability

Measure 3. A–F Letter Grade State Accountability System

Is the school meeting acceptable standards according to the state accountability system?

The state of Arizona received an ESEA waiver, allowing the replacement of AYP designations with academic performance targets determined by the state accountability system.⁵ The charter school academic framework includes the results of the newly adopted A–F Letter Grade Accountability System.

Necessary data

- A–F grade for each charter school, as determined by the Arizona Department of Education (ADE).

Targets

Rating Category	Target Description
<i>Exceeds Standard</i>	School received an A rating from the state accountability system.
<i>Meets Standard</i>	School received a B rating from the state accountability system.
<i>Does Not Meet Standard</i>	School received a C rating from the state accountability system.
<i>Falls Far Below Standard</i>	School received a D or F rating from the state accountability system.

Post-Secondary Readiness (for high schools)

The post-secondary measures are applied to high schools only. Of the various recommended post-secondary measures presented in the Academic Guidance, only graduation rates will be available from the state data system for the foreseeable future.

Measure 4.a. High School Graduation Rate

Are students graduating from high school?

The ASBCS uses the four-year cohort graduation rate as calculated by the Arizona Department of Education (ADE). The ADE method conforms to both the National Governors Association Compact on State High School Graduation Data, and to the U.S. Department of Education 2008 non-regulatory guidance.⁶ The ADE calculates and publishes four-year graduation rates annually for all charter schools. The ASBCS evaluates this measure using the targets aligned to the most current cohort class year data available.

Membership in a cohort class is established at the time of the student’s first enrollment in a high school grade in Arizona. It is computed on the typical four year expectation for graduation. The student’s identity with the cohort class remains the same, regardless of transfers between schools, credits earned, time spent out of Arizona, time spent out of school, and the time necessary for the student to complete requirements for graduation.

Necessary data

Four-year cohort graduation rates published each year at the ADE website: <http://www.azed.gov/>. Within schools, cohorts with fewer than 11 student records will not have graduation rate available.

⁵ For more information on the Arizona ESEA Waiver, see: <http://www.azed.gov/eseawaiver/>

⁶ For more information on the ADE graduation rate, refer to the Graduation Rate Technical Manual, published by the ADE and available for download at: <http://www.azed.gov/research-evaluation>

Targets

Rating Category	Target Description
<i>Exceeds Standard</i>	<ul style="list-style-type: none"> • 2011–12 cohort: At least 82 percent of students graduated from high school. • 2012–13 cohort: At least 84 percent of students graduated from high school. • 2013–14 cohort: At least 86 percent of students graduated from high school. • 2014–15 cohort: At least 88 percent of students graduated from high school. • 2015–16 cohort: At least 90 percent of students graduated from high school. • 2016–17 cohort: At least 92 percent of students graduated from high school. • 2017–18 cohort: At least 94 percent of students graduated from high school. • 2018–19 cohort: At least 96 percent of students graduated from high school. • 2019–20 cohort forward: At least 98 percent of students graduated from high school.
<i>Meets Standard</i>	<ul style="list-style-type: none"> • 2011–12 cohort: 77 percent to 81 percent of students graduated from high school. • 2012–13 cohort: 79 percent to 83 percent of students graduated from high school. • 2013–14 cohort: 81 percent to 85 percent of students graduated from high school. • 2014–15 cohort: 83 percent to 87 percent of students graduated from high school. • 2015–16 cohort: 85 percent to 89 percent of students graduated from high school. • 2016–17 cohort: 87 percent to 91 percent of students graduated from high school. • 2017–18 cohort: 89 percent to 93 percent of students graduated from high school. • 2018–19 cohort: 91 percent to 95 percent of students graduated from high school. • 2019–20 cohort forward: 93 percent to 97 percent of students graduated from high school.
<i>Does Not Meet Standard</i>	<ul style="list-style-type: none"> • 2011–12 cohort: 66 percent to 76 percent of students graduated from high school. • 2012–13 cohort: 68 percent to 78 percent of students graduated from high school. • 2013–14 cohort: 70 percent to 80 percent of students graduated from high school. • 2014–15 cohort: 72 percent to 82 percent of students graduated from high school. • 2015–16 cohort: 74 percent to 84 percent of students graduated from high school. • 2016–17 cohort: 76 percent to 86 percent of students graduated from high school. • 2017–18 cohort: 78 percent to 88 percent of students graduated from high school. • 2018–19 cohort: 80 percent to 90 percent of students graduated from high school. • 2019–20 cohort forward: 82 percent to 92 percent of students graduated from high school.
<i>Falls Far Below Standard</i>	<ul style="list-style-type: none"> • 2011–12 cohort: Fewer than 66 percent of students graduated from high school. • 2012–13 cohort: Fewer than 68 percent of students graduated from high school. • 2013–14 cohort: Fewer than 70 percent of students graduated from high school. • 2014–15 cohort: Fewer than 72 percent of students graduated from high school. • 2015–16 cohort: Fewer than 74 percent of students graduated from high school. • 2016–17 cohort: Fewer than 76 percent of students graduated from high school. • 2017–18 cohort: Fewer than 78 percent of students graduated from high school. • 2018–19 cohort: Fewer than 80 percent of students graduated from high school. • 2019–20 cohort forward: Fewer than 82 percent of students graduated from high school.

Alternative Schools Methodology

Presented below are each of the indicators (general categories of academic performance) and measures (means to evaluate the indicators) included in the Arizona State Board for Charter Schools (ASBCS) academic performance framework for alternative schools. The appendix is divided into four sections, representing the indicators in the academic framework:

- Student progress over time (Growth)
- Student achievement (Proficiency)
- A–F letter grade state accountability system
- Post-secondary readiness

Each section presents information specific to the measures used to evaluate an alternative school’s performance in that indicator: a description, methodology, and target categories. For more detailed information on the measures and the rationale for their inclusion in the framework, refer to the body of the Academic Performance Framework and Guidance.

Measures requiring student-level data across the state are calculated by the Arizona Department of Education. Details of the data and analysis required for each measure are included below. For calculating rankings, all groups with 10 or more students were included in the identification of percentiles. For output, results for schools with fewer than 11 students in the given group were not reported in order to meet the requirements of FERPA.

School-level calculations include only full-academic-year (FAY) students who attend alternative charter schools. Alternative charter schools are compared only to alternative charter schools.

Data

The following variables will be required for all students in the state in order to complete the academic performance framework for alternative charter schools:

- Student identifier
- Grade level
- School ID
- Full Academic Year (FAY) designation
- Student growth percentile (SGP)—math—one year of results
- Student growth percentile (SGP)—reading—one year of results
- AIMS performance level—math
- AIMS performance level—reading
- Free and Reduced Lunch (FRL) designation
- English Language Learners (ELL) designation
- Special Education (SPED) designation

- Fully English Proficient (FEP) indicator
- Fully English Proficient (FEP) years

Additionally, the ASBCS will require the following information for all alternative charter schools in the state:

- Graduation rate
- State A–F rating
- List of school IDs for all alternative charter schools
- List of school IDs for all alternative schools

Student Progress over Time (Growth)

The framework has two measures of student growth: 1) school median student growth percentile (SGP), based on the Arizona Growth Model, and 2) for alternative elementary schools, school median student growth percentile (SGP) for students in the lowest 25 percent of performance on math and reading and, for alternative high schools, the percentage of non-proficient students improving by at least one performance level. For alternative K-12 schools, the school-level median SGP for the bottom 25% and the percentage of non-proficient students that improved by at least one performance level will both be included. When computing the former, only students in grades 3 to 8 are included; when computing the latter, only students grades 9 to 12 are included.

Arizona Growth Model

The Arizona State Board of Education adopted the Arizona Growth Model, based on the Student Growth Percentile Methodology first used in Colorado. This method provides an effective way to measure peer-referenced student growth. A student growth percentile (SGP) calculates a student's progress in comparison with his or her academic peers—students with similar performance on previous assessments. Each individual student's growth in assessment results is ranked against the growth for all students with the same test result on the baseline assessment. A student with an SGP of 50 demonstrated higher growth than half of his academic peers across the state with similar performance in past years. A school median SGP of 50 indicates that at least half of the students in the school showed more growth than half of their academic peers with similar performance across the state in current and past years.

Though a three-year pooled SGP calculation is carried out for alternative schools as part of the state A–F grade calculations, the ASBCS framework assesses median SGP for the *current year* for alternative schools.

Measure 1.a. - Overall Growth (School Median Growth Percentile—SGP)

Are schools making adequate growth based on the school's median student growth percentiles (SGP) in reading and math?

School-level growth calculations include only FAY students.

Necessary data

- School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (student-level file)
- Individual SGP for math and reading (student-level file)
- FAY designation (student-level file)
- List of school IDs for all charter schools
- List of school IDs for all alternative charter schools

Methodology (carried out separately for math and reading)

Step 1: Remove duplicate records.

- Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.
- Identify any duplicate records based on student identifier.** Among students in alternative schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2: Calculate the median SGP for all alternative schools in the state.

Step 3: Rank all alternative schools in the state by median SGP. Identify the median SGP at the 20th percentile, median, and 90th percentile of statewide performance. For example, if 100 alternative schools enroll and test students, the model ranks all of these schools by the median SGP and identifies the median SGP at the 20th percentile (the 20th-highest median SGP in the state) and the 90th percentile (the 90th-highest median SGP in the state).

Step 4: Compare the median SGP of each alternative charter school to the median SGP values identified in step 3.

Step 5: Apply targets to assign rating category.

Targets for Alternative Schools (applied to both math and reading)

Rating Category	Target Description
<i>Exceeds Standard</i>	The school median SGP is in the top 10% of statewide alternative schools.
<i>Meets Standard</i>	The school median SGP meets or exceeds the state median of all alternative schools, but is below the top 10%.
<i>Does Not Meet Standard</i>	The school median SGP is below the state median of all alternative schools, but is above the bottom 20%.
<i>Falls Far Below Standard</i>	The school median SGP is in the bottom 20% of statewide alternative schools.

Measure 1.b.

(K-8/K-12 Schools)—Growth of the Lowest-Performing Students (Student Median Growth Percentile Bottom 25%)

Are the lowest-performing students making adequate growth based on the median student growth percentiles (SGP) of the lowest 25% of students in reading and math?

The framework assesses each alternative elementary or middle school’s median SGP for the lowest 25% of students in reading and in math is calculated. This percentage may be different from that calculated for A–F Letter Grades because the reading and math median growth percentiles are calculated separately in the academic framework, but are reported as a combined result in the A–F Letter Grade workbook. School-level growth calculations include only full-academic-year (FAY) students.

Necessary data

- School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (student-level file)
- Individual SGP for math and reading (student-level file)
- FAY designation (student-level file)
- Previous year’s AIMS scale score (student-level file)
- List of school IDs for all charter schools
- List of school IDs for all alternative charter schools

Methodology (carried out separately for math and reading)

The bottom 25% results include only students with valid AIMS scores in the current and previous year.

Step 1: Remove duplicate records.

- A. **Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.

- B. **Identify any duplicate records based on student identifier.** Among students in alternative schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2: Identify the bottom 25% of FAY students in each ASBCS charter school, based on previous year's AIMS score. (Calculated separately for math and reading.)

- A. **Remove records without an available AIMS scale score in the previous year.**
- B. For grades 4 through 10, **calculate the difference between the previous year's AIMS scale score and the previous year's proficiency benchmark** (the cutoff for proficiency, based on subject and grade). (For 10th-grade students, the 8th-grade result is used for the previous year's scale score.)
- C. **Create an adjusted "difference score"** by adding the difference calculated in (A) to the product of the AIMS performance level and multiply by 1000.
- D. **Rank each student in each school** by the adjusted difference score calculated in (B).
- E. **Identify the lowest quartile, or 25%, of grades 4 through 10 students in each school.**
- F. **Identify the lowest quartile, or 25%, of grade 3 students based on the previous year's grade 2 Stanford 10 scale scores.**
- G. **Combine the students in (D) and (E) to identify the lowest 25% of students in the school.**

Step 3: Calculate the median SGP for all FAY students in the bottom 25% of each alternative ASBCS charter school.

Step 4: Apply targets to assign performance category.

Targets for Alternative Schools (applied to both math and reading)

Rating Category	Target Description
<i>Exceeds Standard</i>	The alternative school median SGP for the lowest 25% of students is ≥ 66 .
<i>Meets Standard</i>	The alternative school median SGP for the lowest 25% of students ≥ 50 but < 66 .
<i>Does Not Meet Standard</i>	The alternative school median SGP for the lowest 25% of students is ≥ 34 but < 50 .
<i>Falls Far Below Standard</i>	The alternative school median SGP for the lowest 25% of students is < 34 .

(High Schools)—Improvement

Are non-proficient students showing an increase in performance on state assessments in reading and math? (Calculation for 11th and 12th grades requires student participation in two consecutive administrations of fall/spring or spring/fall state assessments.)

This alternative measure evaluates the percentage of non-proficient high school students improving by at least one performance level. Improvement may be shown from spring to fall and/or from fall to spring. Students must be enrolled in the same school for both of the compared assessments.

This improvement measure is modified from the state A–F improvement metric. The state metric does not require that students are enrolled in the same school for both of the consecutive assessments. Also, in the state metric, students at the “Meets Standard” AIMS performance level are given the opportunity to move to the “Exceeds Standard” AIMS performance level.

Necessary data

The following items are needed for all students for reading and math for each of the three assessment periods—previous spring, current fall, and current spring:

- Student ID (student-level file)
- School ID (student-level file)
- Subject identifier (student-level file)
- Student grade (student-level file)
- Performance level (student-level file)
- List of school IDs for all alternative charter schools

Methodology (carried out separately for math and reading)

Step 1: Remove duplicate records. Carried out separately the previous spring, the current fall, and the current spring performance results.

- A. Identify duplicates on the basis of school identifier, student identifier, subject identifier, and performance. If duplicate records are identified, retain one of the records.
- B. Perform two iterations of identifying duplicates on the basis of student identifier, subject identifier, and performance. The first iteration identifies the last record as the duplicate; the second iteration identifies the first record as the duplicate. If duplicate records are identified, removal all instances as these are students with identical test records in different schools.
- C. Sort the school identifier, student identifier, and subject identifier in ascending order. Within school, student, and subject, sort the performance in descending order. Then, identify and remove duplicates on the basis of the school identifier, student identifier, and subject identifier; given the sorting that was done before, this will retain the highest performance.

Step 2: Evaluate spring to fall performance change. For all students who were non-proficient in the spring, determine whether they improved by at least one performance category from spring to fall. Students must be enrolled in the same school for both assessments.

Step 3: Evaluate fall to spring performance change. For all students who were non-proficient in the fall, determine whether they improved by at least one performance category from fall to spring. Students must be enrolled in the same school for both assessments.

Step 4: For all students enrolled in each alternative charter high school, calculate the percentage of non-proficient students who improved by at least one performance category either from spring to fall or fall to spring. Only the following students should be included:

- Students in 10th grade or higher for at least one of the assessments, and
- Students enrolled in the same school for both assessments (spring to fall or fall to spring).

Calculate the following percentages:

- A. (The sum of all students who were non-proficient on the prior year spring reading assessment and improved by at least one performance category on the current year fall reading assessment plus all students who were non-proficient on the current year fall reading assessment and improved by at least one performance category on the current year spring reading assessment) *divided by* (the sum of all students who were non-proficient on the prior year spring reading assessment and had results for both prior year spring and current year fall reading assessments plus all students who were non-proficient on the current year fall reading assessment and had results for both the current year fall and current year spring reading assessments).
- B. (The sum of all students who were non-proficient on the prior year spring math assessment and improved by at least one performance category on the current year fall math assessment plus all students who were non-proficient on the current year fall math assessment and improved by at least one performance category on the current year spring math assessment) *divided by* (the sum of all students who were non-proficient on the prior year spring math assessment and had results for both prior year spring and current year fall math assessments plus all students who were non-proficient on the current year fall math assessment and had results for both the current year fall and current year spring math assessments).

Targets for Alternative Schools (applied to both math and reading)

Rating Category	Target Description
<i>Exceeds Standard</i>	At least 55 percent of non-proficient students improved by at least one performance band in reading. At least 40 percent of non-proficient students improved by at least one performance band in math.
<i>Meets Standard</i>	At least 45 percent but less than 55 percent of non-proficient students improved by at least one performance band in reading. At least 30 percent but less than 40 percent of non-proficient students improved by at least one performance band in math.
<i>Does Not Meet Standard</i>	At least 30 percent but less than 45 percent of non-proficient students improved by at least one performance band in reading. At least 20 percent but less than 30 percent of non-proficient students improved by at least one performance band in math.
<i>Falls Far Below Standard</i>	Less than 30 percent of non-proficient students improved by at least one performance band in reading. Less than 20 percent of non-proficient students improved by at least one performance band in math.

Student Achievement (Proficiency)

The academic framework includes two measures of student achievement, or proficiency. Overall school proficiency rates in math and reading are evaluated (Measure 2a), as well as the proficiency rates for FRL, ELL, and SPED subgroups (Measure 2b).

Since proficiency rates vary by grade level, the framework weights the school's average proficiency score by grade-level enrollment. An alternative charter school that serves grades 3–8 would be compared to the percentage of students enrolled in alternative schools statewide in grades 3–8 who are deemed proficient, with each grade "counting" in proportion to the fraction of all students enrolled in that grade at the charter school. If a student tested as a FAY student twice in the same school year, the higher of their two scores is used.

Measure 2.a. - Percent Passing

Are students achieving proficiency on state examinations in reading and math?

In calculating **state-level proficiency**, both FAY and non-FAY students are used. In calculating **school-level proficiency**, only FAY students are used. State-level data is aggregated by school type, meaning alternative schools are compared to state-level measures based only on alternative schools.

To account for grade-level differences in proficiency rate, the framework weights the state comparison rates by grade-level enrollment at the charter school. For example, if 27 percent of students at the

charter school are in the third grade, third-grade state results will count for 27 percent of the state average used in comparison to that charter school.

Necessary data

- School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (student-level file)
- Grade level (student-level file)
- FAY designation (student-level file)
- AIMS performance level in reading and math (student-level file)
- List of school IDs for all alternative charter schools
- List of school IDs for all non-charter alternative schools

Methodology (carried out separately for math and reading)

Step 1: Remove duplicate records.

- Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.
- Identify any duplicate records based on student identifier.** Among students in alternative schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2: Calculate the overall proficiency rate for all FAY students for each ASBCS alternative charter school. Divide the number of proficient FAY students by the total number of FAY students with a valid assessment score.

Step 3: Calculate the average statewide proficiency rate for FAY and non-FAY students in alternative schools for each grade included in state assessment testing. At each grade level, divide the number of proficient FAY and non-FAY students in alternative schools statewide by the total number of FAY and non-FAY students with a valid assessment score in alternative schools statewide. Repeat the same process for every grade.

Step 4: Count the number of FAY students tested at each grade level in each of the ASBCS alternative charter schools.

Step 5: For each ASBCS alternative charter school, calculate an average state proficiency rate for FAY and non-FAY students in alternative schools weighted to the charter school grade-level enrollment.

1. For each grade served by the charter school, multiply the state average proficiency rate for the grade level (calculated in step 3) by the FAY number tested in that grade at the charter school (calculated in step 4).
2. Sum the resulting products for each grade level that the school serves (calculated in step 5-1) and divide by the total number of FAY students tested in the charter school (see Table 1). The result is a ***weighted state average*** that reflects the grade-level composition of the charter school.

Table 1. Example of weighting the state results to grade-level number tested at the charter school

Grade level	Number tested at charter school	Percentage of alternative school students meeting proficiency statewide
3	0	51%
4	0	41%
5	0	41%
6	0	33%
7	0	26%
8	0	30%
10	288	32%
11	135	35%
12	134	45%
Total	557	--
State average weighted to charter school grade level number tested = 35.85% $\frac{(288 \times 32\%) + (135 \times 35\%) + (134 \times 45\%)}{557}$		

Step 6: Calculate 90th and 20th percentile grade-level proficiency rates of FAY students in alternative schools statewide.

1. For all alternative schools in the state, calculate the grade-level proficiency rates of FAY students. At each grade level, divide the number of proficient FAY students at the school by the total number of FAY students at the school with a valid assessment score. Repeat the same process for every grade.
2. At each grade level, rank all alternative schools in the state serving that grade by grade-level proficiency rate of FAY students (calculated in step 6-1). Repeat the same process for every grade.
3. At each grade level, identify the proficiency rate at the 90th percentile of alternative schools statewide. For example, if 100 alternative schools enroll and test students in the third grade, the model ranks all of these schools by the third-grade proficiency rate and identifies the

percent of proficient students at the 90th percentile (the 90th-highest rate in the state). Repeat the same process for every grade.

4. At each grade level, identify the proficiency rate at the 20th percentile of alternative schools statewide. For example, if 100 alternative schools enroll and test students in the third grade, the model ranks all of these schools by the third-grade proficiency rate and identifies the percent of proficient students at the 20th percentile (the 20th-highest rate in the state). Repeat the same process for every grade.

Step 7: Calculate an average state proficiency rate of highest-performing statewide alternative schools, weighted to the charter school grade-level enrollment.

1. For each grade served by the charter school, multiply the number of FAY students tested in the grade (calculated in step 4) by the proficiency rate at the 90th percentile for that grade statewide (calculated in step 6-3). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 7-1) and divide by the number tested in the charter school. (See Table 1 for example.) The result is the ***weighted 90th-percentile comparison***.

Step 8: Calculate an average state proficiency rate of lowest-performing alternative statewide schools, weighted to the charter school grade-level enrollment.

1. For each grade served by the charter school, multiply the number of FAY students tested in the grade (calculated in step 4) by the proficiency rate at the 20th percentile for that grade statewide (calculated in step 6-4). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 8-1) and divide by the number tested in the charter school. (See Table 1 for example.) The result is the ***weighted 20th-percentile comparison***.

Step 8: Apply targets to assign performance category.

Targets for Alternative Schools (applied to both math and reading)

The framework assigns rating categories based on two factors: 1) comparison of the school's FAY proficiency rate to the weighted state average FAY and non-FAY proficiency rate for students enrolled in alternative schools, and 2) comparison of the school's FAY proficiency rate to proficiency rates for alternative schools at the 90th- and 20th-percentile rankings (based on FAY students). Targets are assigned as follows:

Rating Category	Target Description
<i>Exceeds Standard</i>	School's proficiency rates are in the top 10% of statewide alternative school performance
<i>Meets Standard</i>	School's proficiency rates meet or exceed average statewide alternative school performance but fall below the top 10%.
<i>Does Not Meet Standard</i>	School's proficiency rates fall below average statewide alternative school performance but are above the bottom 20%.
<i>Falls Far Below Standard</i>	School's proficiency rates are in the bottom 20% of statewide alternative school performance.

Measure 2.b. - Subgroup Comparison

Are students in subgroups achieving proficiency on state examinations in reading and math compared to state alternative subgroups?

The framework compares the proficiency rates of students belonging typically underserved subgroups within the alternative school to the proficiency rates of students in the same subgroups enrolled in alternative schools statewide. The framework evaluates performance of free and reduced lunch (FRL) students, English Language Learners (ELL), and students with disabilities (SPED), if more than 10 students with a particular subgroup characteristic are enrolled at the charter school.

In calculating **state-level** proficiency, both FAY and non-FAY students are used. In calculating **school-level** proficiency, only FAY students are used. State-level data is aggregated by school type, meaning alternative schools are compared to state-level measures based only on alternative schools.

To account for grade-level differences in proficiency rate, the framework weights the state comparison rates by grade-level enrollment at the charter school. For example, if 27 percent of students at the charter school are in the third grade, third-grade state results will count for 27 percent of the state average used in comparison to that charter school.

Necessary data

- School ID (student-level file)
- Student identifier (student-level file)
- Subject identifier (student-level file)
- Grade level (student-level file)
- FAY designation (student-level file)
- FRL designation (student-level file)
- ELL designation (student-level file)
- FEP designation (student-level file)
- FEP year count (student-level file)
- SPED designation (student-level file)

- AIMS performance level (student-level file)
- List of school IDs for all alternative charter schools
- List of school IDs for all non-charter alternative schools

Methodology (carried out separately for math and reading for each eligible subgroup – FRL, ELL, and SPED students)

Note. To have membership in the ELL subgroup, a student must be labeled as ELL or labeled as Fully English Proficient (FEP) for fewer than three years ($FEP_{year} < 3$).

Step 1: Remove duplicate records.

- Sort the student-level file.** Sort all student-level records in ascending order by the school identifier, student identifier, and subject identifier. Within the school, student, and subject identifier, sort the performance category on the state assessment in descending order.
- Identify any duplicate records based on student identifier.** Among students in alternative schools, a record is identified as duplicate if it is identical with respect to fiscal year, the school identifier, the student identifier, and the subject identifier. Given the sorting that was performed in Step 1, the highest performance on the statewide assessment is retained by retaining only the first record for each school, student, and subject combination. For students who obtain the same performance rating on different testing occasions, only one of those records will be retained.

Step 2: Calculate the overall proficiency rate for all FAY students in the subgroup for each ASBCS alternative charter School. Divide the number of proficient FAY students in the subgroup by the total number of FAY students in the subgroup with a valid assessment score.

Step 3: Calculate the average statewide proficiency rate for FAY and non-FAY students in the subgroup in alternative schools for each grade included in state assessment testing. At each grade level, divide the number of proficient FAY and non-FAY students in the subgroup in alternative schools statewide by the total number of FAY and non-FAY students in the subgroup with a valid assessment score in alternative schools statewide.

Step 4: Count the number of FAY subgroup students tested at each grade level in each of the ASBCS alternative charter schools.

Step 5: For each ASBCS alternative charter school, calculate an average state proficiency rate for FAY and non-FAY students in the subgroup in alternative schools weighted to the charter school grade-level enrollment.

1. For each grade served by the charter school, multiply the state average proficiency rate in the subgroup in alternative schools for the grade level (calculated in step 3) by the number of FAY students in the subgroup tested in that grade at the charter school (calculated in step 4).

- Sum the resulting products for each grade level that the school serves (calculated in step 5-1) and divide by the total number of FAY subgroup students tested in the charter. The result is a ***weighted subgroup state average*** that reflects the grade-level composition of the students in the subgroup at the charter school.

Table 5. Example of weighting the ELL subgroup state results for alternative schools to grade-level number tested at the charter school

Grade level	Number of ELLs tested at charter school	Percentage of alternative school ELLs meeting proficiency statewide
3	0	66%
4	0	59%
5	0	51%
6	0	30%
7	0	16%
8	0	10%
10	24	29%
11	4	23%
12	2	30%
Total	30	--
State average for ELLs weighted to charter school grade-level number tested = 28.27% $\frac{(24 \times 29\%) + (4 \times 23\%) + (2 \times 30\%)}{30}$		

Step 6: Calculate 90th and 20th percentile grade-level proficiency rates of FAY students in the subgroup in alternative schools statewide.

- For all alternative schools in the state, calculate the grade-level proficiency rates of FAY students in the subgroup. At each grade level, divide the number of proficient FAY students in the subgroup at the school by the total number of FAY students in the subgroup at the school with a valid assessment score. Repeat the same process for every grade.
- At each grade level, rank all alternative schools in the state serving that grade by grade-level proficiency rate of FAY students in the subgroup (calculated in step 6-1). Repeat the same process for every grade.
- At each grade level, identify the subgroup proficiency rate at the 90th percentile of alternative schools statewide. For example, if 100 alternative schools enroll and test students in the subgroup in the third grade, the model ranks all of these schools by the third-grade subgroup proficiency rate and identifies the percent of proficient students in the subgroup at the 90th percentile (the 90th-highest rate in the state). Repeat the same process for every grade.

4. At each grade level, identify the subgroup proficiency rate at the 20th percentile of alternative schools statewide. For example, if 100 alternative schools enroll and test students in the subgroup in the third grade, the model ranks all of these schools by the third-grade subgroup proficiency rate and identifies the percent of proficient students in the subgroup at the 20th percentile (the 20th-highest rate in the state). Repeat the same process for every grade.

Step 7: Calculate an average state subgroup proficiency rate of highest-performing alternative statewide schools, weighted to the charter school grade-level subgroup enrollment.

1. For each grade served by the charter school, multiply the number of subgroup students tested in the grade (calculated in step 4) by the subgroup proficiency rate at the 90th percentile for that grade in alternative schools statewide (calculated in step 6-3). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 7-1) and divide by the number of subgroup students tested in the charter school. The result is the ***weighted 90th-percentile subgroup comparison***.

Step 8: Calculate an average state subgroup proficiency rate of lowest-performing alternative statewide schools, weighted to the charter school grade-level subgroup enrollment.

1. For each grade served by the charter school, multiply the number of subgroup students tested in the grade (calculated in step 4) by the subgroup proficiency rate at the 20th percentile for that grade in alternative schools statewide (calculated in step 6-4). Repeat the same process for every grade.
2. Sum the products for each grade (calculated in step 8-1) and divide by the number of subgroup students tested in the charter school. The result is the ***weighted 20th-percentile subgroup comparison***.

Step 9: Apply targets for each eligible subgroup to assign performance category.

Targets for Alternative Schools (applied to both math and reading)

The framework assigns rating categories based on two factors: 1) comparison of the school's FAY proficiency rate of students in the subgroup to the weighted average statewide proficiency rate for FAY and non-FAY of students in the subgroup enrolled at alternative schools, and 2) comparison of the school's FAY proficiency rate of students in the subgroup to proficiency rates for alternative schools at the 90th and 20th percentile rankings (based on FAY students in the subgroup). Targets are assigned as follows:

Rating Category	Target Description
<i>Exceeds Standard</i>	School's subgroup proficiency rate is in the top 10% of statewide subgroup performance in alternative schools.
<i>Meets Standard</i>	School's subgroup proficiency rate meets or exceeds statewide subgroup performance, but falls below the top 10% in alternative schools.
<i>Does Not Meet Standard</i>	School's subgroup proficiency rate falls below statewide subgroup performance, but is above the bottom 20% in alternative schools.
<i>Falls Far Below Standard</i>	School's subgroup proficiency rate is in the bottom 20% of statewide subgroup performance in alternative schools.

Additional Considerations

The English Language Learners (ELL) measure includes Fluent English Proficient (FEP) students who are in year one or year two of monitoring.

If there are fewer than 11 students tested, there will be no subgroup data available for ELL, FRL, and/or SPED. If a school is missing an individual measure, the weighting will be adjusted. For example, if there is no subgroup data available for one or two of the measures within 2b, the weighting will be distributed among the other subgroups within 2b. If there is no subgroup data available for any of the measures within 2b, the weighting will be distributed outside the measure but within the indicator (2a).

State Accountability

Measure 3. A–F Letter Grade State Accountability System

Is the school meeting acceptable standards according to the state accountability system?

The state of Arizona received an ESEA waiver, allowing the replacement of AYP designations with academic performance targets determined by the state accountability system.¹ The charter school academic framework includes the results of the newly adopted Alternative A–F Letter Grade Accountability System.

Necessary data

- A–F grade for each charter school, as determined by the Arizona Department of Education (ADE).

¹ For more information on the Arizona ESEA Waiver, see: <http://www.azed.gov/eseawaiver/>

Targets for Alternative Schools

Rating Category	Target Description
<i>Exceeds Standard</i>	School received an A-ALT rating from the state accountability system.
<i>Meets Standard</i>	School received a B-ALT rating from the state accountability system.
<i>Does Not Meet Standard</i>	School received a C-ALT rating from the state accountability system.
<i>Falls Far Below Standard</i>	School received a D-ALT or F rating from the state accountability system.

Post-Secondary Readiness

The alternative academic framework includes two measures of post-secondary readiness. The post-secondary measures applied to alternative schools include graduation rate and persistence. The graduation rate measure is applied to high schools only. The persistence measure, however, is applied to alternative elementary, middle and high school schools.

Measure 4.a. High School Graduation Rate

Are students graduating from high school?

The graduation rate is a longitudinal measure of how many students graduate from high school within five years of first entering grade 9. Alternative high schools can earn a “Meets Standard” rating in the High School Graduation Rate measure by meeting one of three criteria:

Graduation rates		Criteria to meet the target
3-Year Average for 5-Yr Grad Rate		≥48%
Current	≥ 52%	1% Average Annual Increase
Year 5-Yr Grad Rate	< 52%	2% Average Annual Increase

The three-year average graduation rate =

$$\frac{2008 \text{ five year grad count} + 2009 \text{ five year grad count} + 2010 \text{ five year grad count}}{(2008 \text{ Original cohort} + \text{Transfers in} - \text{Transfers out}) + (2009 \text{ Original cohort} + \text{Transfers in} - \text{Transfers out}) + (2010 \text{ Original cohort} + \text{Transfers in} - \text{Transfers out})}$$

In calculating the average annual increase for the 5 year graduation rate, the baseline year is 2006 or the school’s first year serving grade 12, whichever is the latest. A school’s annual average increase is calculated by subtracting the baseline year’s rate from the current year’s rate and dividing by the number of years spanned in the calculation.

The Average Annual Increase =

$$\frac{\text{Current one year rate} - \text{Baseline one year rate}}{\text{Number of years in span}}$$

If an alternative high school meets one of these 3 criteria, they meet the standard for this measure. If an alternative high school does not meet one of these 3 criteria, they do not meet the standard for this measure.

Necessary data

- Three year average of 5-year graduation rate
- Most recent year 5-year graduation rate and fiscal year identifier
- Graduation rate base year (2006 or school’s first year serving grade 12, whichever is latest)
- Graduation rate associated with base year

Targets for Alternative Schools

Rating Category	Target Description
<i>Meets Standard</i>	School has a 3-Year Average for 5-Year Graduation Rate that is greater than or equal to 48%, or has a current year 5-Year Graduation Rate that is greater than or equal to 52% and the annual average graduation rate increase is at least 1%, or has a current year 5-Year Graduation Rate that is less than 52% and the annual average graduation rate increase is at least 2%.
<i>Does Not Meet Standard</i>	School did not meet any of the criteria identified above that would receive a rating of Meets Standard.

Measure 4.b. Academic Persistence

Are students remaining enrolled in school across school years?

This alternative measure evaluates the percentage of students who remained enrolled in school from the previous school year. 12th-graders who do not graduate but remain enrolled will be included in this calculation.

Students who were enrolled in school the preceding school year and reenrolled in either the same school or a different school on or before October 1 the subsequent school year will be included in the alternative school calculation for persistence. Student records for determining enrollment in the preceding school year are selected using the latest start date. Student records for determining reenrollment in the subsequent school year are selected using the earliest start date on or October 1.

Necessary data

- Student ID (student-level file)
- School ID (student-level file)
- SAIS enrollment status for two consecutive years (student-level file)
- Year-end status (student-level file)
- List of school IDs for all alternative charter schools

Methodology

Step 1: Remove duplicate records. Identify any duplicate records based on student identifier. If duplicate records are present retain:

- The record that corresponds to the latest enrollment date in the prior year, and
- The record that corresponds to the earliest start date for the current year.

Step 2: Identify the students enrolled in the alternative charter school in prior year.

Step 3: Calculate the number of students from prior year eligible to persist in current year. From the students enrolled in the alternative charter school in the prior year(calculated in step 2), remove students with any of the following end-of-year status codes: G, C, EX, D1, D2, W1/S1,W2/S2, W3/S3, W4/S4, W5/S5, W6/S6, W7/S7, W8/S8, W9/S9, W10/S10, W11/S11, W12/S12, W13/S13, W14, W15, W17/S17, W18/S18, W19/S19, W20/S20, W99/S99. Retain only the students with the following end-of-year status codes: A, SA, SC, SE, P, R, D, L, WT, WR, WK.

Step 4: Calculate the number of students from step 3 who are enrolled in any school on or before October 1 in current year.

Step 5: Calculate the Persistence rate. Divide the number of students eligible to persist from prior year who enrolled on or before October 1 in current year (calculated in step 4) by the total number of students eligible to persist from prior year (calculated in step 3).

Step 6: Apply targets.

Targets for Alternative Schools

Rating Category	Target Description
<i>Exceeds Standard:</i>	At least 90 percent of students remained enrolled in school from the previous school year.
<i>Meets Standard:</i>	70 percent to 89 percent of students remained enrolled in school from the previous school year.
<i>Does Not Meet Standard:</i>	50 percent to 69 percent of students remained enrolled in school from the previous school year.
<i>Falls Far Below Standard:</i>	Less than 50 percent of students remained enrolled in school from the previous school year.