New Mexico A-F School Grading Technical Guide 2018

Calculation and Business Rules

For Schools and Districts

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Preface

School grading was mandated by New Mexico state lawmakers in 2011 when basic requirements were established for schools to achieve an A, B, C, D, or F for annual accountability (§22-2-1, §22-2-2, and §22-2E-1 to §22-2E-4; and 6.19.8 NMAC). The *School Grading Technical Guide* provides detailed decision rules for each indicator, statistical treatment of data, and calculation parameters. These business rules apply to New Mexico public and charter schools and do not apply to private schools, Bureau of Indian Education schools, home schools, or other schools that are not within the jurisdiction of the New Mexico Public Education Department (PED). In addition to schools, districts are held to similar accountability standards.

New Mexico's school grading model was first approved in 2012 by the U.S. Department of Education and was recently one of the first to be approved under requirements of the *Every Student Succeeds Act* (ESSA). Under ESSA, school accountability will undergo slight revisions of student success indicators and measures of academic progress beginning in 2019. The full ESSA plan is available on the website at https://webnew.ped.state.nm.us/wp-content/uploads/2018/02/FINAL-APPROVED-NM-State-ESSA-Plan.pdf.

Please submit questions or requests for revision and clarification to Ryan Tolman at ryan.tolman@state.nm.us.

I. Definitions and Abbreviations

Terms used in this document and their meaning in school grading follow:

<u>Accountable school</u> denotes the location where a student's scores are assigned for accountability. The assignment follows this hierarchy:

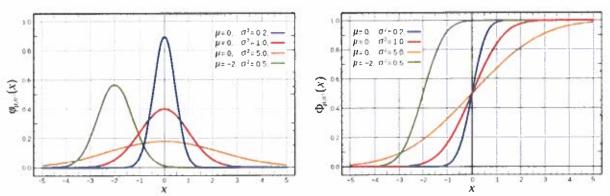
If Full Academic Year (FAY)=Yes, the accountable school is the FAY school, or IF FAY=No, the accountable school is the location where the student was tested.

<u>Aggregate</u> describes presentations of data where individual students are combined in a group. Typical aggregates are English learners or students with disabilities. Common practice uses the term "disaggregate" to refer to reporting information in these smaller student groups.

Bonus Points are extra points schools can earn for reducing truancy, promoting extracurricular activities, engaging families, and using technology. Points are based on truancy statistics, participation in activities recognized by the New Mexico Activity Association (NMAA), the school's use of Next Step Plans (NSPs) and Student Assistance Teams (SATs), and online test administration of statewide tests. More information on the rubric used for assigning bonus points is available on the PED's website at https://webnew.ped.state.nm.us/bureaus/accountability/a-f-school-grading-training-materials/. These points are added to a school's total points prior to the determination of the school's overall grade.

<u>CDF (Cumulative Density Function)</u> is the probability (from 0 to 1.0) that an observation will be found at a value less than or equal to the value of that observation. In other words, it represents the sum of the area to the left of a density curve for a given value. To illustrate, the graph below left shows several examples of probability distributions. These could be distributions of scores, points, or rates. Note that three of the distributions center around zero, and one (shown in green) has a mean of -2. The gold, red, and blue distributions have been standardized to a mean of zero, but they could just as easily be means of 55 on a test that totals 100 points.

The CDF graph on the right shows each of the probability distributions on the left graphed in cumulative (additive)



fashion, that is, the values to the left of any given point on the x-axis are accumulated until the entire group of probabilities sums to 1.0 (or 100%). Where the distributions are peaked (shown in blue), the slope near the mean changes quite rapidly, and where the distributions are flatter (shown in gold), the slope changes slowly along a broader range of values.

Typically, the CDF distribution is used to convert scores on the horizontal x-axis to points on the vertical y-axis such as value-added model (VAM) score to Current Standing points. One can see that a small gain in the x-axis will result in a large gain in points on the y-axis when the score is near the middle of the distribution. The conversion tables were established and set from the first operational year of school grading in 2012. Now that they are fixed, scores from subsequent years can be judged on a stable framework that allows all schools to progress to a higher letter grade.

<u>Current Standing</u> is a two-part measure of the status of a school in the current year. The two parts are composed of the percentage of students who are proficient and a score based on a growth model that accounts for prior scores.

<u>Duplicates</u> refers to two test records that have the same student identification (ID). Duplicates may occur when the same student was tested twice, such as once in English and again in Spanish, or when a student moves during the test window and is retested at a different school. More commonly, different students are mistakenly identified as being the same, which happens with the accidental mislabeling of a test or with an incorrectly coded ID. Duplicates also occur when two students within the state are unknowingly sharing the same ID number. All of these conditions must be reconciled during data review. Each student can contribute only one test score for each content area. Where duplicates cannot be resolved, both scores are removed from the accountability file.

ELA (English Language Arts) is a broad term encompassing reading, writing, speaking, listening, and language literacy. For the purposes of school grading, ELA represents components of reading and writing that are assessed within the assessment battery.

FAY (Full Academic Year) indicates whether a student has been enrolled at a single location for one year. The school or local educational agency (LEA) where the student was enrolled is accountable for the student's instructional legacy, since the student was present for one year's worth of growth and learning. FAY is also used as a measure of student educational stability and risk. The portion of a school's population that is not FAY (more mobile) is used to adjust predicted values in the growth calculation.

Growth Models (see Value-Added Models):

<u>HED (Higher Education Department)</u> is a separate cabinet-level agency in New Mexico that governs state institutions of higher education. The PED limits accountability to only kindergarten-grade 12 institutions but works closely with the HED for the reporting of some post-secondary measures.

<u>IStation</u> is an assessment of early literacy for students in kindergarten through second grade. The assessment is administered in both English and Spanish versions and is the sole source of achievement information for students in these grades.

LEA (Local Educational Agency) traditionally refers to the 89 school districts that manage nearly 800 schools in New Mexico. More recently, the term also applies to a growing number of state-authorized charter schools that operate independently of any district.

<u>Model</u> determines the school's points and framework for earning a letter grade, and each school is assigned to either the high school (HS) or elementary/middle school (EL) model based on the grade span of the school. Where the grade configuration does not clearly dictate a model, the available indicators for each model are examined to maximize the data available for the school's grade. For example, high schools that also have middle school grades are reassigned to the EL model when they do not have cohort measures and growth for their high school grades.

<u>NMAPA (New Mexico Alternate Performance Assessment)</u> is the assessment in mathematics, English language arts (ELA), science, and social studies that is administered to students with the most severe cognitive disabilities. Student performance results for only mathematics and ELA are currently used in the calculation of school grades.

Normalized refers to the statistical treatment of a distribution of scores to adjust the values measured on different scales to a common scale, often prior to averaging or combining them. Typical examples of normalized scores are z scores, where the mean of the distribution is zero and variation in the positive and negative direction is described in standard deviation units (see *CDF*).

<u>Opportunity to Learn (OTL)</u> represents the learning environment schools provide. It is determined from student attendance and scores on a student or parent survey administered annually. The survey measures the extent to which classroom teachers demonstrate instructional practices known to facilitate student learning.

PARCC (Partnership for Assessment of Readiness for College and Careers) is the general assessment of English language arts and mathematics for students in grades 3 through 11. It is aligned to New Mexico's Common Core State Standards, and was administered for the first time in 2015. The PARCC assessment includes end-of-course assessments in Algebra I, Algebra II, and Geometry.

<u>Proficiency</u> refers to whether the student has achieved a benchmark score on various criterion-based assessments. For example, the PARCC scores classify students in one of five performance levels, with levels four and five considered college and career ready, on grade level, or proficient. The scores required to be considered proficient were determined by national school officials, subject matter experts, and certified teachers in the inaugural years of each assessment.

Q refers to the student's quartile status for school grading. Every student is classified as being a member of either the Q1 (the lowest-performing quartile) or Q3 (the top three higher-performing quartiles) subgroup. By separating students into the higher- and lowest-performing groups, schools can see if their practices are benefitting both groups. New Mexico law requires that accountability highlight the lowest-performing 25% of the student population.

<u>SAM (Supplemental Accountability Model)</u> schools are a subset of graded schools that serve students at risk of academic failure. Schools qualify by having a high proportion of returning adults or a high proportion of students with disabilities and by publicly declaring the school mission and goals for these students. School grading rules are moderated slightly for SAM schools, and mission-specific measurements are incorporated into the determination of the school's letter grade.

<u>SBA (Standards-Based Assessment)</u> is the general assessment of science for students in grades 4, 7, and 11 and of Spanish reading for students in grades 3-8 and high school. Science scores are not yet used for school grading.

<u>School Growth</u> measures whether a school's scores tend to go up or down in comparison with previous performance.

<u>Snapshots</u> are the fixed dates required for all districts to submit data to the PED data warehouse called STARS (Student Teacher Accountability Reporting System). These dates are fixed at the following:

- Second Wednesday of October (known as 40th day; abbreviated as 40D)
- December 1 (known as 80th day; abbreviated as 80D)
- Second Wednesday of February (known as 120th day; abbreviated as 120D)
- End of Year, variable but principally in June (known as EOY)

Additionally, a specialized snapshot occurs during the last week of testing (known as the "Accountability" or "4/20" snapshot); timing is variable but the snapshot generally occurs in April.

Standard Setting refers to the process of setting cut scores. The A-F grading framework was set using student data from 2011 and 2012. At that time, the PED normed each indicator, anchoring the grade of "C" at the average for all schools statewide. For example, a school that achieves a "C" in College and Career Readiness has scored near the average of all other schools in the state. A school that earns an "A" or "B" for any indicator performed above the average of how other schools performed on that indicator in 2011 and 2012. Since the time of the standard setting, the scale has not changed.

<u>Status</u> refers to schools in some form of improvement or reward. The four status categories from lowest to highest performing follow:

- More Rigorous Interventions (MRI) schools have earned five or six "F" grades in a row and are the four most struggling schools in the state as of summer 2018.
- Comprehensive Support and Improvement (CSI) schools are the lowest-performing five percent Title 1 schools or high schools where at least one-third of the students are not graduating on time.
- Targeted Support and Improvement (TSI) schools have one or more subgroups of students (for example, race/ethnicity) that are performing significantly lower than the rest of the student population.

<u>Student Growth</u> represents how much individual student achievement grows compared with other students. Student growth is estimated using a multilevel (mixed effects) regression model.

<u>Subgroups</u> are the student groups aggregated for accountability reporting, as required by U.S. Department of Education. A single student can contribute to several subgroups. While data for each subgroup are reported, only the student characteristics of FAY and Q1/Q3 are used in school grading calculations.

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All students (reported as "All Students")

Caucasian/White-Non Hispanic (reported as "Caucasian" or "White")

Black-Non Hispanic (reported as "African-American" or "Afr Amer")

Hispanic (reported as "Hispanic" or "Hisp")

Asian/Pacific Islander (reported as "Asian")

Native American (reported as "American Indian" or "Am Indian")

English Language Learners (reported as "English Language Learners," "ELL," or "EL")

Special Ed, Not Gifted (reported as "Students with Disabilities" or "SWD")

FRL, free or reduced price lunch program (reported as "Economically Disadvantaged" or "ED")

Gender (reported as "F" or "M")

Migrant (Title 1C) (reported as "Migrant")

FAY (reported as "Y" or "N")
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- Q1, quartile 1, lowest-performing 25% of students
- Q3, higher three quartiles, remaining students who are not Q1

<u>Test Code</u> indicates the specialty within a particular assessment. The broader concepts of English language arts or mathematics each contain domains such as third-grade math, Algebra I, or tenth-grade English. These specialty areas are applied during growth modeling to ensure that students are being compared to their academic peers.

<u>Valid Test</u> refers to a test that can be successfully scored. Tests are invalidated for a number of reasons (see *Conditioning of Data, Test Completion Code*), and these invalid tests may adversely affect the school's participation rate.

<u>VAM (Value-Added Modeling)</u> is a statistical procedure that isolates the school's contributions to student performance from factors outside the school's control that may influence student test performance. VAM provides a picture of the school's impact (value added) on student achievement in addition to achievement scores. This is also referred to as growth modelling.

II. Data Sources

<u>School Attributes</u>. The school file lists all open public and charter schools in New Mexico with enrolled students in any grades K-12. The purpose of this file is to finalize the list of schools that earn a rating and their characteristics that affect calculations. Occasionally, schools merge, change configuration, change name, or are considered a "program" rather than a school (and vice versa). Such changes are finalized prior to school grading. Each location is classified as one of the following:

- Public school. If students take the test at a school or program where they are enrolled for only part of the day, their parent school must be identified and their scores attributed to that school. Scores of students in transient programs (e.g., programs at different schools in which the student is enrolled for several weeks or months) may also be assigned to their parent school, after review by PED.
- 2. <u>Locally authorized charter school</u>. If the authorizer is one of the 89 recognized multi-school districts, the school is under the jurisdiction of the authorizing district.
- 3. <u>State-authorized charter school</u>. If the authorizer is the New Mexico Public Education Commission, the school is considered independent from a district and is under the jurisdiction of the state authority.
- 4. Off-site program. Students in off-site programs (e.g., correctional facilities, treatment centers, homebound, or hospitalized) are generally excluded from school-level calculations and included at the LEA level for rating. However, if the student qualified as FAY at a school prior to entering the program and testing, his or her test will count at the FAY school. Off-site programs are not rated.
- 5. <u>State-supported school</u>. State-supported schools receive funding from multiple sources and may not be fully under the jurisdiction of the PED. Examples include *Juvenile Justice Schools*, the *School for the Blind and Visually Impaired*, and the *School for the Deaf*. The *New Mexico Military Institute* receives private funding, operates a junior college in addition to high school, and is exempted from rating by New Mexico statute.

Additionally, schools are characterized by

6. <u>Title I</u> status (S=Schoolwide, T=Targeted, N=Not receiving Title I funds)

- 7. SAM school (Y/N)
- 8. Level (elementary/middle or high school)
- 9. New or Reorganized (affects inheritance of school accountability, FAY, and other calculations)
- 10. <u>Attendance</u> is extracted from the data submissions by districts at 40D, 80D, and 120D snapshots of the current year. A rate is computed for every subgroup and includes all grades K-12 that are served by the school.
- 11. <u>Graduation</u> is computed annually by the Accountability Division at PED. The file lists rates and counts by subgroup, school, and LEA for 4-year, 5-year, and 6-year cohorts. Details of the calculation are fully covered in PED's *Graduation Technical Manual*.
- 12. <u>Historical data</u> are provided by the Accountability Division from prior years and include figures required for the current year's calculations.

<u>Student Attributes</u>. The student file lists all students assessed in the current year, their demographic information, historic scores, and relevant accomplishments. The purpose of the student file is to calculate the parameters used to grade the student's current school.

- 1. Mathematics and ELA <u>proficiency scores</u> are supplied by the test vendors that score and report assessment result used in School Grading.
- 2. <u>Subgroup membership</u> is assigned from the data submitted by districts through STARS snapshots. When students are missing from the 4/20 snapshot, the nearest snapshot date where the student is found is used.
- 3. <u>Surveys</u> are completed by students and by parents for younger grades. The surveys consist of 10 questions with six possible responses, and questions on both parent and student versions are very similar. Surveys are administered anonymously through a secure online portal through a third-party vendor and are available in English and Spanish. Survey questions can be found in Appendix D of this guide.
- 4. Student/Parent Engagement data are submitted to PED by the LEA and are part of Bonus Points.
- 5. ACT student-level data are submitted by LEAs through regular STARS submissions throughout the year.
- 6. SAT student-level data are submitted by LEAs through regular STARS submissions throughout the year.
- 7. PSAT student-level data are submitted by LEAs through regular STARS submissions throughout the year.
- 8. <u>AP (Advanced Placement)</u> student-level data are submitted by LEAs through STARS regular submissions throughout the year.
- 9. <u>Dual Credit</u> data are supplied by a cooperative agreement between PED and HED. The data are limited to students who have enrolled and earned credit in post-secondary institutions governed by HED.
- 10. <u>Career Technical Education</u> is partly determined by course enrollment and course grades extracted from data submissions by LEAs at 40D, 80D, and 120D snapshots of the current and prior years. Definitions established for Carl Perkins Grant funding then classify students as "Concentrators" or "Completers." When a completer graduate with a diploma, a student meets the success benchmark.
- 11. Accuplacer student-level data are submitted by LEAs through regular STARS submissions throughout the year.
- 12. COMPASS student-level data are submitted by LEAs through regular STARS submissions throughout the year.
- 13. <u>Aspire (formerly PLAN)</u> student-level data are submitted by LEAs through regular STARS submissions throughout the year.

- 14. <u>IB (International Baccalaureate)</u> student-level data are submitted by LEAs through STARS submissions throughout the year.
- 15. SAT Subject Tests (SATSUB) data are supplied by LEAs during a data exchange.
- 16. Tests of Adult Basic Education (TABE) data are supplied by LEAs for SAM schools during a data exchange.
- 17. WorkKeys data are supplied by LEAs for SAM schools during a data exchange.
- 18. ASVAB data are supplied by LEAs for SAM schools during a data exchange.

III. Data Validation

Verification of preliminary files ensures consistency with prior years and completeness. Discrepancies are presented to suppliers of the data source for resolution. Data checks include but are not limited to the following:

- 1. Correct grade ranges for all schools
- Schools to be rated
- 3. New or reorganized schools with inherited grading histories or FAY anomalies
- 4. Notable variation in the size of any subgroup over the prior year
- 5. Any variation in student subgroup membership among 120D, Accountability, and EOY snapshots
- 6. Verification of prior year's ratings
- 7. Verification of the appropriate assignment and completeness of graduation and attendance
- 8. Verification of level (elementary/middle or high school)
- 9. Verification that all rated schools are represented in the vendors' test files
- 10. Verification that all students tested are represented in school ratings and reports

IV. Conditioning of Data

<u>Assessment Scores.</u> A subset of records in the test data file (valid tests) and content within records (ELA and mathematics) is used for school rating. Results for Spanish, English, and Braille administrations are included, as are the alternate assessments. The following guidelines apply to the selection and cleaning of those records:

- 1. Remove records of students from non-PED schools, such as home-schooled students who were permitted to test at the discretion of the LEA, or BIE that is not held to PED accountability.
- 2. Reconcile Test Completion Code (TC), Scaled Score (SS), and Proficiency Level (PL). The TC is a field marked by the testing administrator at the time of testing to indicate whether the test was successfully administered. Sometimes it is coded incorrectly, overridden by scoring (student fails the Attemptedness Rule), or overridden by a sanction imposed by PED for a testing irregularity. Because TC is used for various counts, it must match the results of scoring, i.e., SS and PL. This reconciliation is performed by the Accountability Division and details can be supplied upon request. Test Completion codes have these meanings:
 - TC=0 Tested all sessions and received a valid score

- TC=1 Withdrew before testing; excused
- TC=2 Received a nonallowed modification; invalidate test (SS=99)
- TC=3 Exempt from ELA/reading assessment because of language exception; excused
- TC=4 Medical emergency exemption; excused
- TC=5 Parental refusal; invalidate test; (SS=99)
- TC=6 Incomplete testing; invalidate test; (SS=99)
- TC=7 Testing irregularity; invalidate test; (SS=99)
- TC=8 Absent; invalidate test; (SS=99)
- 3. A single student can have a valid mathematics test (TC=0) and an invalid ELA/reading test (TC=5). This split testing affects participation rates for each content area.

<u>Filtering, Student Identification, and Assignment of Accountable School</u>. These rules are required to define the Accountability dataset that is unique to school grading and general reporting.

- Reassign tests to the location where a student is FAY=Yes. For a small number of students who move during
 the test window, the location of the assessment does not match the location where the students were fully
 enrolled the prior year (FAY). These students are reassigned to the FAY school for accountability.
 - A student can take the test in more than one school (e.g., mathematics in school N, and ELA in school P). Special rules apply and are explained in VI. Calculations.
- <u>Limit records</u> to students in eligible K through 12 and also to students in later grades in high school who have never been tested for accountability. Occasionally students in other grades are tested because assessments are also used in high school graduation, and these students are removed from the accountability determinations and calculations.
- 3. Use enrollment data to update missing values in student characteristics (e.g., ethnicity).
- Determine the treatment of <u>duplicate records</u>. This process uses a set of rules performed by the Accountability Division, together with district personnel and test vendors.
- 5. Determine the treatment of <u>invalid student IDs</u>. A small number of tests cannot be unidentified each year due to either a missing or invalid ID. After all attempts to identify these students manually have failed, the tests will be included with the location where they were submitted, with a dummy ID assigned by the PED.
- 6. Assign subgroup membership and demographics from snapshot data.

<u>FAY</u> is determined entirely from enrollment submissions. For verification, an LEA may run reports in STARS that show a student's snapshot history. FAY is determined secondarily by the grade configuration of the accountable school.

- 1. <u>FAY=Yes</u> if a student is enrolled at the 120th day of the prior school year and the 40th, 80th, and 120th day of the current school year. There are exceptions to this rule:
 - A. Students in <u>transition grades</u> (e.g., the lowest grade in the school's grade span) are FAY=Yes provided they meet the following conditions:

- 1) Enrolled 40D, 80D, 120D of the current year AND
- 2) Enrolled 120D of the prior year in the same LEA as the transition school. This rule applies to locally authorized charter schools but not to state-authorized charter schools.
- B. Students in <u>reorganized schools</u> in the current year are FAY=Yes under the same provision as transition grades provided they are in a lower grade that is new to the school. For example, if a school that previously served grades 7-8 adds a 6th grade, both 6th grade and 7th grade students must meet conditions A.1 and A.2 to be considered FAY=Yes.
- C. Students in <u>new schools</u> are FAY=Yes under the same provisions as transition grades. (See A above.) For example, a new school that serves grades 6, 7, and 8 requires only that students meet conditions A.1 and A.2 to be considered FAY=Yes.
- D. State-authorized charter schools follow the same options above but without the requirement for LEA membership in the prior year.
- FAY=No when a student misses any single snapshot in the series. Mobile students are not dismissed from school grading proficiencies. However, a school's expected growth outcome (VAM) is adjusted slightly to account for student mobility.

Student matching. A longitudinally linked data file includes every student's scaled score and proficiency level for the current year and the scaled scores that they earned in ELA and mathematics for the two most recent prior years within the last four years. Thus, students who are missing a prior year of data as a result of a prior grade level being untested (such as 9th grade prior to 2015) will not be removed. Students with ambiguous student IDs or who are identified in an unresolved duplicate pair (see *Data Conditioning*, Duplicates) are not included in the linked dataset. Missing data are estimated using the average prior scores for each student's grade level and school.

<u>Determine Q1 or Q3</u>. Students are assigned as either Q1 or Q3 in the current test year. This determination comes from the following decision rules:

- 1. All students in the test file for the current year are aggregated at the school level. This aggregate includes all students who took any assessment in the current year and disregards a student's grade level. For example, it is possible to have more 4th graders than 3rd graders in the Q1 group for a single school.
- For a school, all of the students' scaled scores are ranked from highest to lowest. A cut score is established for
 each school that divides the bottom 25% (Q1) from the remaining students (Q3) in mathematics and in ELA
 separately. These cut scores are unique to each school and are recomputed each year.
- After the cut score for each school is established, each student is then classified as either Q1 (below the cut)
 or Q3 (above the cut) for the current school year. Every student fits into either Q1 or Q3 groups and no
 student is excused.

The student's Q status is determined separately for ELA and for mathematics, so it is possible for a student to be Q1 in mathematics and Q3 in ELA at the same time.

<u>Categorize students into Q1 or Q3 Subgroups</u>. The Q status of both prior and current years determine a student's Q1 or Q3 membership for the current school grading calculations. The student's assignment for the current year's accountability is derived from the following decision rules:

1. The student is matched to his or her prior scores regardless of school or grade level. Matching occurs for the current and prior two years, yielding up to three data points per student.

2. The student's assignment to either the Q1 or Q3 subgroup is determined by their <u>first in the series</u> of the matched scores.

To illustrate, Jack's assignment would come from his score of 55 from the prior year, Alicia's from the current year, and Tom's and Javier's from 2 years ago.

MATHEMATICS

	2 Years	1 Year	Current	Subgroup
	Ago	Ago	Year	Assignment
Jack	(no test)	55 (Q3)	62 (Q3)	Q3
Alicia	(no test)	(no test)	33 (Q3)	Q3
Tom	13 (Q1)	25 (Q3)	26 (Q3)	Q1
Javier	0 (Q1)	(no test)	33 (Q3)	Q1

In the subsequent year this three-year window will shift, with the earliest year's scores dropping off and the second year scores becoming the first in the series. In this example, all 4 students would be assigned to the Q3 subgroup in next grading season.

The student's accountable school is used as the school of record for school grading, representing the final year of growth and achievement. In the example, it is evident that Javier's school will earn considerable credit for his dramatic growth from 0 to 33 scaled score points, which will be reflected in *Student Growth Lowest Quartile (Q1)* since he belonged to that subgroup.

To summarize, for longitudinal comparisons every student's scores from up to two prior years are used. Their Q1/Q3 membership is determined by the first score in any progression.

- If the student has three years of test scores, their quartile membership is determined from the first year.
- If a student has only two years, their membership is determined by the earlier of the two years.
- If the student is new to PED schools, then membership comes from their current year. The current year counts
 as the third of the three-year progression.

A new set of students will enter the progression every year, in every school. Likewise, the years of progression will move up for every student, so that a student who had scores from grades 3, 4, and 5 last year will now be using their scores from grades 4, 5, and 6 this year, which will redefine their membership in Q1 and Q3.

A school's quartile memberships shift yearly as well as bringing in new students, but in general, the school should see some stability in their overall impact on *Student Growth*. If the school is consistently growing the achievement of their lower performing (Q1) students, it will show each year even though some students leave and new students enter.

<u>Scaled Score Standardization</u>. School grading is based on achievement scores from several tests and vendors. The differing assessments have different score ranges and cut scores. In order to combine assessments for grading,

each is transformed to a scale from 0 to 200 where 0 is the minimum for the test, 100 is the cut-score for proficiency, and 200 is the maximum. Between these anchor points the transformation is linear.

The transformation is:

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if (x_i < cs) y_i = 100 (x_i - min) / (cs - min)
if (x_i = cs) y_i = 100
if (x_i > cs) y_i = 100 + 100 (x_i - cs) / (max - cs)
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Where: x = the original scaled score

cs = the proficiency scaled cut score for x
min = the minimum original scaled score for x
max = the maximum original scaled score for x

<u>Prior Achievement Scores for Growth.</u> Most students have two prior ELA and math scores, one each from the previous two years for the corresponding subjects. There are exceptions.

- 1. For early grades KN-2 students are assessed in ELA only so there is no growth for math for these students. Further, because cognitive development is often more rapid at these ages than for older students, the first ELA prior is an average of the beginning-of-year (BOY) score and middle-of-year (MOY) score from the current year and the second ELA prior is the end-of-year (EOY) score from the previous year. Because kindergarten does not have a previous year, the first ELA prior comes from BOY and the second ELA prior score is MOY score for the current school year.
- 2. Because math is not assessed until third grade, the third and fourth grade students do not have a complete set of prior math scores. For these students, the first and second ELA prior scores are used to predict the current math score.
- 3. In cases where a student is missing a score from the prior two years, then scores from the prior three and four years are used.

<u>Imputing Missing Values</u>. Students within the PED system are rarely missing prior scores; however, a small number of students that are new to PED schools will not have prior scores. If a student group is missing any of the necessary prior scores, the average score for students in their grade and school is used.

V. Calculation Parameters

<u>Software</u>. Calculations are performed with IBM SPSS© Version 23 available at http://www-01.ibm.com/software/analytics/spss. Additional calculations utilize R[©] (the R Foundation for Statistical Computing) available at https://cran.r-project.org.

<u>Rounding.</u> No rounding occurs until final points and rates are computed. All computations prior to reporting use unrounded figures out to 12 decimal places. Final rounding occurs to the second decimal place (e.g., 92.27%) unless otherwise indicated. The terminal digit of 5 is rounded up.

Points. Points for the School grading indicators are achieved by one of two methods:

- Comparison to a pre-existing standard or
- 2. Relative to the performance of other New Mexico schools.

Point distributions and cut scores were fixed from preliminary grades established in 2011 and 2012. The first point assignment method is used for *Current Standing (Proficiency)*, *OTL Student Survey*, *Graduation*, and *Attendance*. The second point assignment method is used for remaining indicators.

Letter Grades. The cut points, or point boundaries, leading to the letter grades of A, B, C, D, and F, were determined by the overall point distributions in the state (elementary/middle schools as one group and high schools as another) in the first year of school grading. The "A" boundaries were equated at the 90th percentile of school points. The "C" boundaries were placed around the 50th percentile. The letter grades for all the supplementary indicators of school grading were based on the 90th, 70th, 50th, and 30th percentiles, with the exception of Opportunity to Learn, which was based on 90th, 80th, 70th, and 60th, for A, B, C, D, and F, respectively. The overall grade is based on the 90th, 70th, 40th, and 10th percentiles (values rounded). Overall and indicator letter grade point frameworks are appended to this document.

Growth. The grading model relies on a year's worth of growth, which on the New Mexico scale is equal to a growth index of 0. Growth for each student is measured in relation to how a particular student scored in the current year compared to his or her academic peers. Academic peers are students who scored about the same in the two prior years in ELA and mathematics. A student who scored the same as the average of his or her academic peer group has made one year's worth of growth. A benefit of such a model is that it is easy to determine if students are demonstrating more or less than a year's worth of growth simply by whether the growth score is positive or negative. Another advantage of this scale is that the standard error of measurement is both small and stable across the grade levels.

<u>Value-Added Modeling (VAM)</u> is used to estimate certain elements of school improvement. The VAM framework was established for use at PED in 2011 for application to future years. To determine the anchors, each school's VAM estimate was derived from their position in a distribution of all schools. This position was then used to assign point boundaries (see *Definitions, CDF*). The VAM distribution and its associated cut points from the base year of 2011 were frozen for use in the evaluation of future years. In 2015, the value-added models were adjusted to accommodate New Mexico's shift to the PARCC test, but the cut points remain consistent with those established in 2011.

To arrive at the anchor values, the VAM estimates are converted to t scores, and cut points are established at the point where a set proportion of schools fall below. VAM was estimated simultaneously for *School Growth* and *Current Standing* using methods that take into account prior achievement.

Reading (ELA) and Mathematics. These two subject areas are equally weighted throughout school grading for all grade levels. A school's grading indicators (e.g., Current Standing) summarize both content areas taken together and equally weighted. The subject areas are detailed separately in the remainder of the report to help inform factors leading to overall performance. With the introduction of new assessments in 2015, reading is synonymous with English language arts (ELA).

<u>Schools Rated</u>. Grades are calculated for public, locally authorized charter, and state-authorized charter schools. School calculations exclude off-site locations, programs, and students tested in those locations. These students are rolled up into LEA accountability or are reassigned to an accountable school where possible.

VI. Calculations

Each indicator of school grading is assigned its own grade. The points from indicators are then summed together with bonus points for a final overall grade. The indicators that make up each of the two models are outlined in the model summaries appended to this document.

- A. <u>Current Standing</u> is computed identically for both EL and HS models, with maximum point totals of 40 and 30 points, respectively. Current Standing has two components: 1) an unconditional proficiency status model and 2) a conditional value-added model (VAM, also referred to as a growth model). Unconditional proficiency status is the familiar concept of the percentage of students who achieve proficient or advanced at the most recent testing occasion. The conditional growth or VAM accounts for the school's size, student mobility, and previous scores and measures how much each school is above or below their predicted value, A strong positive relationship exists between a school's proficiency rate and a school's average scaled score.
- Proficiency (sometimes referred to as "status") refers to the percentage of students who were proficient or
 above in the current reporting year and uses the goal of 100%. The resulting percentage is rounded for
 reporting while the unrounded figures are used to compute points. Those familiar with Adequate Yearly
 Progress (AYP) will recognize proficiencies as the basis for that accountability model, and Current Standing is
 the only portion of school grading where this concept is used. Proficiency percentages account for valid tests
 only, after invalid tests and students exempted from testing are removed.
 - Points for proficiency are awarded based on an equally weighted combination of mathematics and ELA, except in grades KN-2 where there are only ELA scores. Each is computed as the proportion of students who are proficient multiplied by the number of available points. For example, elementary mathematics is worth 10 points; a school with 50% proficient would earn .50 X 10 =5 points.
- 2. <u>Current Standing VAM</u> is calculated based on students' scaled scores and is used to isolate the school's effect on student achievement from the pre-existing differences in school setting and population. Unlike proficiency, VAM calculates growth for all the students. The school's size (enrollment), prior achievement scores, alternate assessment indicator (whether a student is taking alternate assessment), and mobility (proportion of the student body that is FAY) are used to predict the student's score. Schools composed of students who exceed expectations have higher value-added scores than schools composed of students who fall below expectations.

The procedure that is used to compute these scores is called Hierarchical Linear Modeling (HLM, which is also known as multilevel or mixed effects regression), and is described in the technical details below. A positive score from VAM indicates that a school has exceeded expectations based on the parameters described above. A negative score means that a school has fallen below the expectations, while a score of zero indicates that the school has met the expectations.

When conditioning the data for *Current Standing*, an adjustment is made for schools that qualify for Supplemental Accountability Model (SAM) status. The adjustment is based on the mean deviation of scaled scores for SAM schools.

TECHNICAL DETAIL

The Current Standing VAM/growth model uses a multilevel (HLM or mixed-effects) regression model that recognizes two levels, students (level 1) who are then nested within schools (level 2). Levels are referred to with subscripts such that score; refers to the *i*th student's score and that student is in the *i*th school.

The variables used to predict these scores are shown in the following equation. The growth model estimates values for all B coefficients in the equation and predicts an individual student's score. Separate VAM models are run for each test code (see *Definitions*, *Test Code*), which are then combined into a weighted average by subject.

SubjectScore
$$_{ij}$$
 = B0 + B1 SubjectP1 $_{ij}$ + B2 SubjectP2 $_{ij}$ + + B3 FAY $_{ij}$ + B4 ALT $_{ij}$ + B5 n_{ij} + B6 MOB $_{ij}$ + u_{ij} + e_{ij}

Where:

SubjectScore = the predicted score for student i in school i

BO = the intercept. A student having zero values on all of the remaining variables in the equation would have this value as his or her predicted score, which is also the grand mean across all schools.

SubjectP1_{ij}, SubjectP2_{ij}, = the student's two prior subject scores (i.e., ELA or math) that came from any four prior years, the most recent valid scores available. Prior scores were derived within the same content area (ELA or mathematics) with the exception of 3rd and 4th graders as described above.

FAY_{II} = whether or not the student is considered full academic year status (FAY).

 ALT_{ij} = whether or not the student took an alternate assessment.

 n_i = the size of the school, represented by the number of students assessed in grades K-8 (EL model), and grades 9-11 (HS model).

MOB_i = the percentage of students in the school who are not FAY (or are mobile).

uj=school-level random effect

en=student-level random effect

The variables, *B0* through *B6MOB*_i, form the *fixed* component of the model, which is linear and additive. There are no interaction terms in the equation, nor is a curvilinear relationship recognized.

After accounting for the fixed component of the model, u_j , a random component, which represents each school's unique contribution, and which is not explained by school-level predictors (i.e., n_i and MOB_i), is considered. This component reflects the extent that the average scaled score for a school is greater than, equal to, or less than the state averaged scaled score. The Empirical Bayes (EB_i) estimates are estimated from knowing the mean and standard deviation of u_i .

A final component, e_{ij} , represents the student contribution that reflects those aspects of a scaled score that we cannot control for, after the fixed student-level effects (i.e., student's prior Math/Read scores, FAY_{ij} , ALT_{ij}) are accounted for.

Empirical Bayes residuals are estimated from knowing the mean and standard deviation of u_i . From this model each school earns an EB residual which is comprised of the fixed and random (school effects) components, and the residual can be negative, positive, or zero:

- Positive means students in the school tended to score above their predicted values.
- Negative means students in the school tended to score below their predicted values.
- Zero means students in the school, on average, performed as predicted.

Three steps convert EB_j into points for school grading:

1. Standardize EB_j by dividing the value by the standard deviation of the EB_j:

```
z_j = (EB_j - Mean EB_j / sd(EB_{jj}))
```

2. Transform standardized EB_j values (z_j) into a probability ranging from 0 to 1, where $z_j = 0$ corresponds to .5:

```
VAMScore_{j} = CDF(z_{j})
```

where CDF(z_i) is the cumulative normal distribution function which maps z_i values of -3, -2, -1, 0, 1, 2, and 3 onto: .001, .02, .16, .50, .84, .98, and .999, respectively.

- 3. Multiply VAMScore; by the maximum number of points for the indicator:
 - 7.5 X VAMScore; for EL Model
 - 5 X VAMScore; for HS Model

The VAM index is computed separately for ELA and mathematics, and both are weighted equally in the final assignment of points.

B. <u>School Growth</u> is computed identically for both EL and HS models and yields 10 points toward the total score (5 each for ELA and mathematics) for a school. *School Growth* is different from *Current Standing* because it predicts the mean score for a school from the mean values of students' prior scores along with school characteristics.

Growth is calculated using the mean from previous scores to predict the mean score in the current year. The school's difference above or below their predicted mean is weighted by the number of students tested. The weighted average is a measure of each school's growth.

TECHNICAL DETAIL

The calculation of *School Growth* uses a multiple linear regression model. The unit of analysis is the school, not the student. Using the same conventions as in *Current Standing VAM*, the mean for the *j*th school is noted as *MeanScorej*. Equation 2 is similar to equation 1, except the model predicts the mean scores for the school rather than an individual student so all predictors are at one level (school). As with the *Current Standing VAM*, the model presumes that relationships are linear and that there are no interactions among variables.

SubjectMeanScore_i = B0 + B1 MeanPrior1Subject_i + B2 MeanPrior2Subject_i + B3 MeanFAY_i + B4 n_i + B5 Test_i + e_i

The calculations include the categorical variable *Test*_j in the model and allowing each test code (see *Definitions*, *Test Code*) to have its own B value. The important result is the residual *e*_j. The residual for each test is weighted by the count of tests, which are then aggregated test code and averaged for school growth (*SG*_i).

Calculating SG_i points is similar to EB_i for Current Standing VAM:

1. Standardize SG₁ value:

$$z_i = (SG_i - MeanSG_i)/sd(SG_i)$$

2. Transform z_i into a variable (probability) that can range from 0 to 1:

```
SGScore_{j} = CDF(z_{j})
```

where CDF(z_i) is the cumulative normal distribution function that maps z_i values of -3, -2, -1, 0, 1, 2, and 3 onto .001, .02, .16, .50, .84, .98, and .999, respectively.

Multiply SGScore; by the maximum number of points for the indicator, for example, 5 X SGScore;.

The number of points is computed separately for ELA and mathematics, and both are weighted equally in the final assignment of points.

C. Student Growth is similar to Current Standing VAM except that scores are calculated separately for two student subgroups, Q1 and Q3 (see IV. Conditioning of Data, Determine Q1/Q3). The points for these two groups are weighted equally. Because there are fewer students in the Q1 than there are in the Q3 subgroup, the students in the Q1 subgroup have more influence, per student, on this portion of the school's overall points.

Student Growth is estimated with a mixed effects (HLM or multilevel) regression model that is conducted for each test code for Q1 and Q3 subgroups separately. The value-added scores for each assessment are aggregated using a weighted average. The HS model yields Q1/Q3 point totals of 10/10, while the EL/MS model yields 20/20. Each set of points is divided equally between ELA and mathematics.

Similar to *Current Standing VAM* and *School Growth*, Student Growth is expressed in a difference from expected. For example, if a school has a positive Q1 student growth index, the school's lower-performingstudents are now performing better than expected, while a negative index means that these students' achievement is less than predicted.

TECHNICAL DETAIL

The scores for this indicator are derived in a manner similar to *Current Standing VAM*, and *School Growth*, but separately for Q1 and Q3 subgroups. The scores are based on the same HLM regression as *Current Standing VAM*:

SubjectScore
$$_{ij}$$
 = B0 + B1 SubjectP1 $_{ij}$ + B2 SubjectP2 $_{ij}$ + + B3 FAY $_{ij}$ + B4 ALT $_{ij}$ + B5 n_{ij} + B6 MOB $_{ij}$ + u_{ij} + e_{ij}

D. Opportunity to Learn (OTL) is based on attendance and a classroom survey administered to students or parents. High schools can earn 8 total points (3 for attendance, 5 for the survey) and elementary/middle schools can earn 10 points (5 for each).

<u>Attendance</u> is computed schoolwide for every school, including schools with early grades KN-2 and high schools. Rates are presented as schoolwide percentages, and calculations are detailed below. Percentages are rounded to two decimal points prior to computing points, and are further rounded to integers for reporting.

- 1. The target for attendance is 95%. That is, all students enrolled, whether for a short time or a long time, are in school for an average of 95% of their days enrolled. Schools with average rates less than 95% earn partial credit, and schools with greater than 95% can earn more than the maximum allotted points.
- 2. Ineligible student attendance records are removed prior to calculation:
 - Days Present < 0 or missing
 - Days Enrolled < 0 or missing
 - Days Present > Days Enrolled
 - Students without a corresponding record in Student Snapshot at the same location
- 3. The rate is calculated as the unweighted average of individual student's attendance, which accrues from 40D, 80D, and 120D snapshots. The student's numerator is the total days attended accumulated across three enrollment periods (40th, 80th, 120th day snapshots). The student's denominator is the days enrolled for the same periods. After each student's attendance rate is computed, all student rates are averaged for the school summary.
- 4. A single student can contribute to the rates of more than one school if the student is mobile.
- 5. When a school is missing a reporting period (40D, 80D, or 120D snapshots) because of submission error, the rate is computed in the same manner, only excluding the missing reporting period from the days attended and days enrolled. Schools may check their attendance rates by running specialized reports in STARS.
- 6. The points awarded for attendance result directly from the percentage. To illustrate:

Attendance for an elementary school = 80%

Points = .80 X 5 / .95 = 4.21

The attendance rate is multiplied by 5 total points and then divided by the target goal of 95%. In this example, the school earned 4.21 out of 5 points even though it did not reach the target attendance rate of 95%.

Classroom Surveys. The parent and student surveys consist of 10 questions about practices known to promote successful learning. Students beginning in third grade are asked to consider the teachers they currently have and respond about the practices these teachers exhibit. Parent surveys are provided for parents for children in grades KN-2. Students are instructed to fill out the survey for all their teachers. Parent and student surveys have the same structure and are combined to calculate a school's overall survey score worth 5 points.

- 1. Survey responses are on a 6-point Likert scale from least to most beneficial.
- Responses are summed for each survey, yielding scores ranging from 0 to 50.

- 3. The target score of 45 yields 100% of the five total points possible. Schools that average higher than 45 on the total score can earn slightly higher than five points.
- 4. Scores for all students are averaged for each school. Points are derived from the ratio of the school's overall score to the target score of 45. This ratio is applied to the total possible points to arrive at the indicator score as in Attendance.

The points from attendance and the student survey are independently calculated, then summed to form the OTL total.

- **E. Graduation** rates are one-year lagged. That is, the rates that are published in January are for the cohort that graduated by August 1 of the prior year. Calculation of 4-year, 5-year, and 6-year cohort graduation rates uses the *Shared Accountability* method that is described fully in the *Graduation Technical Manual* on the PED website, http://ped.state.nm.us/Graduation/index.html. The method is not repeated here but in general:
- 1. A rate is generated for every school that has any grade 9, 10, 11, or 12.
- 2. For new high schools that do not yet have a graduating cohort class, a hybrid school grading model is used. These schools are graded on the remaining non-cohort indicators and they are excused from Graduation and College/Career Readiness, which also uses the cohort model. The resulting total points are adjusted to reflect the reduced number of indicators, and the scale and maximum possible total points are the same.
- 3. The model includes 4-year, 5-year, and 6-year rates, which produce a maximum of 8, 3, and 2 points, respectively. Growth of the 4-year rate is worth an additional 4 points yielding a total of 17 possible points for graduation. The extended-year rates include only members of the prior 4-year cohort and do not allow new entrants in subsequent years.
- 4. Earned points are equal to the rate multiplied by the possible points for that category. For example, a 5-year rate of 80% is equal to $.80 \times 3 = 2.4$ points.

<u>Graduation Growth</u> refers to annual increase in the 4-year graduation rate and is based on three years of data. Growth in the 4-year rate reflects the school's overall ability to help an increasing percentage of students complete their high school careers in a timely way. Because the goal is 90% of students graduating in four years, so any school that has a graduation rate of 90% in 2016-2017 is awarded all four points. The slope is calculated (see below) and changed into points.

TECHNICAL DETAIL

Graduation Growth is based on the slope of the 4-year graduation rates for the past three years. The table below shows how these slopes are calculated for schools that have graduation rates for each year (Schools A and B), and for schools that have missing graduation rates (for example, new schools with only two years).

Table 1: Calculating Slopes from Four-Year Rates

	2015	2016	2017	Slope	Method
School A	50%	55%	60%	+5% per year	(2017 - 2015)/2
School B	60%	70%	50%	-5% per year	(2017 - 2015)/2
School C	-	55%	60%	+5% per year	2017 - 2016
School D	60%	-	50%	-5% per year	(2017 - 2015)/2
School E	-	-	40%	no slope	
	- no grad	luation rate	e for that y		

Schools with only one rate (School E) have no slope. For these schools, the points for their other graduation components are adjusted to account for the absence of growth.

Growth can be conceptualized as a regression line:

$$GradRate_{ij} = BO^{(i)} + B1^{(i)} Year_{ij} + e_{ij}$$
(3)

Where:

 $BO^{(j)}$ = the intercept for the individual school.

 $B1^{(i)}$ = the slope for the individual school.

Yearij= the year.

The slopes depicted in Table 1 are a simplification of this method.

The slope is divided by the standard deviation of all slopes, resulting in some positive and some negative values. These values are then transformed using a CDF into a score that can range from 0 to 1. Points are derived by multiplying the CDF value by the points possible, with the qualification that any school with a rate higher than the goal of 90% earns all points regardless of their slope.

SAM Graduation Rate

A non-cohort graduation rate augments the 4-year cohort rate to arrive at a compiled SAM graduation rate. The numerator and denominator are derived from non-cohort members since cohort members are already counted in the 4-year cohort rate. Using this method, schools receive feedback on their success in graduating returning dropouts and adults whose cohort is no longer part of the accountability system.

The 4-year cohort and non-cohort figures are combined for the final SAM graduation rate using the weighting scheme shown below. The SAM graduation rate is then used to assign points for SAM schools on the same point framework used for non-SAM graduation rates.

The formula for the SAM graduation rate follows:

SAM Graduation Rate =
$$\left(4CGR * \frac{4CGR \ Denominator}{Total \ Denominator}\right) + \left(NCGR * \frac{Count \ of \ all \ 40D \ Seniors}{Total \ Denominator}\right)$$

Where:
$$4CGR = \left(\frac{Sum\ of\ fractions\ of\ snapshots\ of\ 4\ year\ cohort\ members\ who\ graduated}{Sum\ of\ fractions\ of\ snapshots\ of\ all\ 4\ year\ cohort\ members}\right)*100$$

$$\textit{NCGR} = \left(\frac{\textit{All non-cohort graduates}}{\textit{All non-cohort students}}\right) * 100$$

Total Denominator = Count of all 40D Seniors + 4CGR Denominator

F. <u>College and Career Readiness (CCR)</u> scores are determined by the percentage of 4-year graduation cohort members who show evidence of participating in college or career preparation, along with the

proportion of participatingstudents meeting a benchmark. Evidence of participation and success is established through any of the 14 indicators available to high school students, noted in #6 below.

- CCR is computed for all high schools that have members of the 4-year graduation cohort for that assessment year. CCR is not computed for elementary or middle schools.
- 2. Cohorts must have a minimum of three student records to be included. Otherwise the high school qualifies for the non-cohort hybrid model (E. *Graduation*).
- CCR calculations use the shared accountability method used for high school cohort graduation rates. For details see the *Graduation Technical Guide* at https://webnew.ped.state.nm.us/bureaus/accountability/graduation.
- 4. Any single student attempt (*Participation*) or single student success (*Success*) within the four years of the cohort is counted.
- 5. CCR is composed of *Participation* (5 points) and *Success* (10 points) yielding a total 15 points in the high school's overall grade. The school grading cut points for participation and success were derived from base rates normalized in 2012. This framework has been held stationary for evaluation of future rates.
- 6. The following CCR indicators are eligible. All students enrolled in grades 9 through 12 are eligible for participation in one or more of these programs:
 - PSAT is the Preliminary SAT and is cosponsored by the College Board and National Merit Scholarship
 Corporation. The assessment yields scores in Evidence-Based Reading and Writing and in Mathematics
 and offers benchmark scores that indicate college readiness in two age groups: sophomores and younger,
 and juniors and older.
 - SAT is a widely used college admissions examination that measures the skills in Evidence-Based Reading and Writing and Mathematics.
 - ACT is a national college admissions examination that is recognized internationally. The ACT yields scores
 in four areas (English, Mathematics, Reading, and Science) and offers benchmark scores that indicate
 college readiness in each.
 - Concurrent Enrollment/Dual Credit in an accredited New Mexico post-secondary institution offering
 college credit is counted as evidence of post-secondary preparation. All courses that are nonremedial are
 counted.
 - AP, Advanced Placement, is a national qualifying examination aligned to 38 college-level courses. Most
 four-year colleges grant students credit, advanced placement, or both on the basis of the score on the AP
 exam for that subject. Students do not earn credit just by enrolling in a high school AP class. They must
 also demonstrate participation and success in the national exam.
 - Career Program of Studies is a sequence of high school courses that are recognized to lead to industryrecognized certification. Foundations for career readiness are built from the Carl Perkins Vocational and
 Applied Technology grant definitions. To be considered successful, the student must complete all
 coursework with a C or better and graduate from high school with a diploma.
 - ACT Aspire, an assessment for 10th graders, is designed to utilize a student's achievement to guide career
 options and the remaining years of high school. The ACT Aspire has the capability to predict outcomes on
 the ACT. The test assesses English, Mathematics, Reading, Science, and Writing

- AccuPlacer is a computer-adaptive college placement test offered by College Board that helps institutions
 of higher education place students in appropriate courses. Questions are chosen for each student on the
 basis of the answers to previous questions. The AccuPlacer consists of Reading, Mathematics and Writing.
- COMPASS is a computer-adaptive college placement test offered by ACT that helps institutions of higher
 education place students in appropriate courses. Questions are chosen for each student on the basis of
 the answers to previous questions. The COMPASS provides scores in Reading, Writing, and Mathematics.
- The IB, or the International Baccalaureate program of studies, is a standardized and enhanced high school
 curriculum where students must demonstrate competency in six study areas or earn an IB diploma. The
 program originated in Sweden and grants credentials that are recognized outside the U.S.
- SAT Subject Tests, standardized subtests that complement the SAT, are usually taken to improve a student's credentials for admission to colleges in the United States. Each test is timed at one-hour, and tests are available in multiple subjects related to a student's interests or a college's requirements.

The following three assessments are applicable to students at SAM schools only:

- TABE, Test of Adult Basic Education, is an assessment that measures a person's grade level in reading, mathematics, and language.
- WorkKeys, a job-skills assessment created by ACT, is used by businesses to measure workplace skills of
 job applicants, and by schools and colleges to help prepare students for the workplace. WorkKeys
 assesses Mathematics, Reading, Writing, Science, and Social Studies.
- ASVAB, the Armed Services Vocational Aptitude Battery, provides a composite score called the Armed
 Forces Qualification Test (AFQT) score. ASVAB scores identify occupations that best suit a candidate's
 abilities and can be used to qualify for enlistment.

Participation

- Cohort members count as a participant when they attempt any one or more of the CCR indicators any time during their four-year tenure in high school. Although students may make multiple attempts with multiple indicators in multiple years, each participating student counts only once.
- SAM schools are allowed use of additional indicators ASVAB, WorkKeys, and TABE. These indicators are not available to other high schools.

Success

The success rate follows the same calculation as participation, resulting from weighted numerators and
denominators from shared accountability. Students who achieve any one or more of the benchmarks (below)
or higher are considered successful in the numerator, while students who participated in any program or
assessment form the denominator. The success rate is the percentage of participants (numerator for
participation) that succeeded.

The benchmarks for success are shown in the table below.

Assessment	Minimum Required Score
AccuPlacer	
College-Level Mathematics	50
Elementary Algebra	80
Reading Comprehension	82
Sentence Skills	83
WritePlacer	6
ACT	
Mathematics	22
English Composition	18
Reading	22
Science	23
ACT Áspire	
Mathematics	432
English	428
Reading	428
Writing	428
Science	432
Advanced Placement (AP)	
AP Research	3
AP Seminar	3
Art History	3
Biology	3
Calculus AB	3
Calculus BC	3
Chemistry	3
Chinese Language and Culture	3
Computer Science A	3
Computer Science Principles	3
English Language and Composition	3
English Literature and Composition	3
Environmental Science	3
European History	3
	3
French Language and Culture German Language and Culture	3
Government and Politics: Comparative	3
Government and Politics: United States	3
Human Geography	3
Italian Language and Culture	3
Japanese Language and Culture	3
Latin	3
Macroeconomics	3
Microeconomics	3
Music Theory	3
Physics 1: Algebra-Based	3
Physics 2: Algebra-Based	3
Physics C: Electricity and Magnetism	3

Assessment	Minimum Required Score
Physics C: Mechanics	3
Psychology	3
Spanish Language and Culture	3
Spanish Literature and Culture	3
Statistics	3
Studio Art: 2-D Design	3
Studio Art: 3-D Design	3
Studio Art: Drawing	3
United States History	3
World History	3
COMPASS	
Mathematics	52
Reading	88
Writing Essay (Scale 2–12)	9
Writing Essay (Scale 2–8)	7
Writing Skills	77
CTE Course Sequence	
Any PED-recognized CTE Pathway	C
Dual Credit	
Nonremedial Course	С
International Baccalaureate (IB)	NAME OF TAXABLE PARTY.
Mathematics	4
Literature (English or Spanish)	4
Language and Literature (English or Spanish)	4
Individuals and Society	4
Experimental Sciences	4
Arts	4
1B Diploma	24
PSAT: before November 2015	DECEMBER OF THE
Mathematics	47
Critical Reading	45
Writing	45
PSAT: after November 2015	
Mathematics	480
Evidence Based Reading & Writing	430
SAT: before March 2016	.430
Mathematics	500
Critical Reading	500
Writing	500
SAT: after March 2016	300
Mathematics	530
Reading and Writing	480
SAT Subject Area Tests	
Mathematics Level 1	587
Mathematics Level 2	647
Literature	574
Chemistry	642
Ecological Biology	593

Assessment	Minimum Required Score
Molecular Biology	624
Physics	632
U.S. History	610
World History	589
French	601
French with Listening	626
German	608
German with Listening	594
Spanish	619
Spanish with Listening	640
Modern Hebrew	586
Italian	671
Latin	586
Chinese with Listening	739
Japanese with Listening	662
Korean with Listening	749

In addition, SAM schools may apply the following assessments:

Assessment	Minimum Required Score
ACT WorkKeys	
Applied Mathematics	5
Listening for Understanding	4
Reading for Information	5
Business Writing	3
Applied Technology	3
Teamwork	4
Location Information	4
TABE (Complete Battery Subtests)	
Mathematics	506
Reading	518
Writing	524
ASVAB (Comprehensive)	
AFQT	31

This example shows how students Joe and Jane contributed to the CCR rates for the multiple high schools they attended during their 4-year tenure. Note that each student's fractions will always add to 1.0 and are the equivalent of one student statewide. Note also that the attempt (participation) and success flags are distributed to all schools the student ever attended. This means that all high schools are held accountable for readiness no matter the school's grade configuration or the mobility of the student.

Student	High	Count of Snapshots	Count of Snapshots	Fraction for that	CCR Attempted*	CCR Success*	CCR Participation	CCR Success
	School	in School	in State	School	(Y/N)	(Y/N)	Numerator	Numerator
Joe	Pine	4	16	0.25	Y	Υ	0.25	0.25
Joe	Elm	8	16	0.50	Y	Υ	0.50	0.50
Joe	Oak	4	16	0.25	Υ	Υ	0.25	0.25
Jane	Cedar	2	10	0.20	Υ	N	0.20	0.00
Jane	Pine	5	10	0.50	Υ	N	0.50	0.00
Jane	Oak	3	10	0.30	Y	N	0.30	0.00

^{*} Multiple attempts or multiple successes do not change the student's weight in the calculation. The student's single best effort is used, and is distributed to all high schools attended.

TECHNICAL DETAIL

The calculation of a school's points is illustrated for CCR participation, which is worth a total of 5 points:

CCR participation for a high school = 97%

Points = .97 X 5 = 4.85

The CCR participation rate is multiplied by 5 total points. In this example, the school earned 4.85 out of 5 points.

G. Bonus Points

Bonus points are derived from four sources, 1) the PED's data warehouse STARS, 2) the New Mexico Activities Association (NMAA), 3) schools and districts use of *Next Step Plans* (NSPs) and *Student Assistance Teams* (SATs) submitted to an online system, and 4) vendor-provided assessment files. Schools are able to earn bonus points in four categories:

- Student and parent engagement (maximum 2 points)
- Habitual truancy improvement over the prior year (maximum 2 point)
- Activities (maximum 1 point)
- Use of online assessment format (maximum 2 points)
- 1. Parent and student engagement points are based on use of NSPs and/or SATs. Details are available at http://aae.ped.state.nm.us/ (Select Year: 2016-2017 to see bonus points information).
- 2. Improvement in habitual truancy is calculated from STARS submissions from LEAs.
- Student participation in athletics and activities is derived from data supplied by NMAA, which includes counts
 of participants. This indicator is for high schools only. Elementary and middle school bonus points are
 adjusted for the exclusion of these points so that both models can earn up to five bonus points.
- 4. The use of online assessment format is computed as the percentage of students who took the assessments in computerized format as opposed to paper. The percentage is derived only for assessments that have multiple formats.

5. Bonus points are added to the school's total points prior to determining the school's overall grade. Bonus points are capped at five.

H. Early Grades (KN-2)

- 1. Participation rates are not calculated for schools that do not have third grade or higher.
- 2. Attendance rates are generated for these schools using the same methods as for other schools.
- Current Standing. School Growth, and Student Growth indicators are calculated identically, although the early
 literacy assessment is used as the primary achievement measure. The points a school earns for ELA in each
 component of school grading are doubled to account for the lack of mathematics.

I. Abbreviated Model

A small number of schools do not have enough data, either historical or current, to calculate a component. This may include lack of prior data for growth, or for current data the lack of examinees. For these schools, an alternate model that relies only on the remaining components is used. As with schools with only grades KN-2 the overall points are adjusted to meet the 100-point scale used for all of school grading.

Indicator scores that are not missing should be interpreted the same as for any other school. The adjustment to a 100 point scale takes place only for *Overall Points*. Schools are not penalized for missing data that is deemed outside of their control.

J. Supplemental Accountability Model (SAM) Schools

SAM schools receive special considerations in VAM (*Current Standing*), *CCR*, *Graduation*, and *Participation*. Schools qualify for the SAM model under two conditions: 1) when the percentage of students with disabilities in the school is higher than typical (20% in 2013), or 2) when the percentage of students aged 19 or older is higher than typical (10% in 2013). Schools may also petition to become a SAM school if the publicized mission of the school is to serve students who have traditionally found a general educational setting difficult, such as pregnant teens or behaviorally challenged students.

Schools that specialize in educating at-risk students typically experience higher student mobility that complicates the calculation of cohort rates and other time-dependent measures. Therefore, these schools are allowed to supplement their accountability with additional rigorous measures that demonstrate that they have met their mission. For example, the accountability for a school that specializes in credit recovery for returning dropouts will include their ability to build a student's credit bank and to graduate non-cohort members in the current year. These supplemental measures are negotiated with the PED and are in addition to, not in place of, the accountability measures required of non-SAM schools.

<u>Current Standing VAM</u>. When conditioning data for *Current Standing*, an offset is applied to level the playing field for SAM schools. The offset is based on the mean deviation of scaled scores for SAM schools.

The offset is recomputed every year and is dependent upon the ELA and mathematics performance of students in SAM schools. A value is added to the conditional mean for each SAM school for mathematics and ELA prior to dividing by the standard deviation.

<u>Graduation</u>. A non-cohort graduation rate is computed using a *senior completer* method which includes only 12th grade students who are not members of the 4-year cohort. The denominator is comprised of the count of non-

cohort 12th graders in the first enrollment snapshot (40D). The numerator is derived from the count of all non-cohort students who graduated by the end of the year (EOY snapshot). Note that these counts do not track the same students but are considered only samples of typical senior enrollment and of typical non-cohort graduates. It is possible for a school to have a graduate count at the end of the year that exceeds their senior population at the 40th day snapshot. This would occur when many students undertake brief periods of rapid credit recovery and graduate and exit throughout the year, while the school maintains a relatively stable student count.

The numerator and denominator are derived from only non-cohort members since cohort members are already counted in the 4-year cohort rate. Using this method, schools receive feedback on their success in graduating returning dropouts and adults whose cohort has long since aged from the system. The rate calculations are covered in *E. Graduation*.

<u>College and Career Readiness (CCR)</u> rules were broadened for SAM schools to include three additional career readiness indicators that were in keeping with the mission of the school. In addition to the measures available to other schools, WorkKeys, TABE, and ASVAB can be used by SAM schools.

<u>The participation</u> requirement is at least 95% of enrolled students must take the appropriate assessments. With the high student turnover in most SAM schools, this rate becomes unrealistically high and unachievable. Therefore, the participation penalty does not apply to SAM schools, although PED will continue to monitor SAM schools to ensure that students are not systematically being excluded from assessment.

VII. Participation in Assessments

All enrolled students in eligible grades and courses must be assessed with the appropriate general or alternate assessment. The benchmark for participation is 95% of the *All Students* group. Schools that fail to meet the minimum of 95% have their letter grade reduced by one letter, and a penalty flag placed on their report. Schools that earn a pre-penalty "F" status will retain the "F" and will have a penalty flag placed on their report.

- The participation rate is a percentage of all valid and scorable tests divided by a school's enrollment in eligible grades, or in the case of PARCC high school math, enrolled in eligible courses. The percentage is rounded to the nearest integer.
- 2. Two participation rates are calculated, one for ELA and one for mathematics. If either rate falls below 95%, the school fails to meet the requirement.
- 3. For all schools, the unweighted average of rates from the current and prior two years is applied as a second tier of evaluation.
- 4. The denominator for participation is derived from enrollment counts of all students in the 120D, Accountability, and EOY snapshots. If the rate is met in one of the snapshot considerations, the school is considered to have met participation. Only students in eligible testing grades 3-11 are counted towards participation.
- 5. The numerator for participation is the count of all valid and scorable tests. Students who received an ELA exemption (TC=3) are counted for participation provided they have successfully completed the English language proficiency assessment in lieu of the ELA assessment.
- 6. Students who are FAY=Y at one school (their *Accountable School*), but take the test at another school, are reassigned to their accountable school. Students who are FAY=N are assigned an accountable school based on their enrollment status closest to their testing date.

- 7. Examinees whose assessments are invalidated for various reasons (see *IV. Conditioning of Data, TC Codes*) do not receive a score and do not count in the numerator for participation.
- 8. Examinees whose assessments are exempted (Medical Exemption, ELA Exemption, 9th Grade Spanish ELA Exemption, Course Less than 50% Complete Exemption) are excused from both the numerator and the denominator of the participation rate.
- 9. Students who were identified as having transferred out of the system are excused from both the numerator and the denominator of the participation rate.
- 10. Participation rates are not computed for schools with only grades earlier than third grade. These schools, sometimes called "feeder schools" are exempted from the participation rate requirement.
- 11. Only schools with 100 or more eligible students may receive the participation penalty.
- 12. Schools designated as SAM schools are excused from the participation penalty.

VIII. LEA Grades

Local educational agency (LEA) report cards are required by federal statute: Elementary and Secondary Education Act (ESEA) section 1111(h)(2) as amended by the No Child Left Behind Act of 2001 and as amended by the Every Student Succeeds Act. Grades in the report cards have been calculated and reported since 2012 using the method that follows.

- LEA grades are calculated and published annually after A-F School Grading appeals for schools have been fully adjudicated, typically in September.
- Summary letter grades are calculated for multi-school LEAs. State-authorized charter schools qualify as a single-school LEA; therefore these schools' letter grades serve as their LEA rating and an additional score is not needed.
- 3. The LEA grade results from a weighted average of the schools within the district.
 - A. The process weights only the schools' overall points and not individual component scores (e.g., Q1 Student Growth).
 - B. Because the LEA's average is weighted by the school's size, larger schools contribute more to the LEA grade than smaller schools.
 - C. The weight for each school is derived from the number of students in kindergarten through grade 12.
 Student counts are derived from the STARS 120D snapshot for the year of the accountability assessment.
 - D. Weighting ensures that the LEA is held accountable for all of their students and that each student carries the same weight.
- 4. The LEA's weighted overall score is converted to a letter grade using a hybrid of the two models used in school grading. Elementary and middle schools have slightly different cut points for letter grades than high schools. The LEA points are rounded to a single decimal (i.e., tenths) prior to the assignment of a letter grade.
- Like schools, LEAs must meet the 95% participation threshold. Failure of an LEA to test the minimum percentage of eligible students results in lowering

LEA Letter Grade Framework

Grade	Overall Points
Α	75.0 or More
В	62.5 to 74.9
С	50.0 to 62.4
D	36.2 to 49.9
F	36.1 or Less

the letter grade by one. The participation rate calculation follows the procedure for schools except for the following:

- A. Students in off-site settings (i.e., correctional facilities, treatment centers, homebound, or hospitalized) are included.
- B. Three-year averaging is not applied.

Participation failures are noted on the reporting of the LEA grades by an asterisk with a footnote: "This LEA's grade was lowered by one letter because it failed to test 95% of all students."

Illustration of LEA Grade Weighting

	Υ	Z			
School	Overall Points	Enrollment (N)	YxZ	Averaged Total Points Per Student	The final score of
Hilltop	60	100	6,000	Per Student	65.0 yields an LEA letter
Elm	70	50	3,500	(13,000/200)	grade of B.
Cedar	70	50	3,500	(13,000/200)	grade or b.
FREE STATE		200	13,000	65.0	

The weighted mean score is 65.0 which produces the letter grade of B. An unweighted mean of the three schools would be 66.7 [(60+70+70)/3]; however, because Hilltop had twice as many students as the other two schools the weighted mean shifted slightly toward that school's overall score.

In practice, the overall points are computed using 14 decimal places until arriving at the final *Averaged Total Points per Student*, at which time the points are rounded to the nearest tenth prior to the assignment of a letter grade.

Appendix A: Elementary/Middle Model and Points

Overall Model and Points - Elementary and Middle Schools			Points	
	Percent Proficient	25		
Current Standing Are students performing on grade level? Did they improve more or less than expected?	Value-added conditioning of proficiencies, accounting for school characteristics for the past three years	15	40	
School Improvement Is the school as a whole making academic progress?	Value-added conditioning of performance, taking into account school characteristics for the past three years	10	10	
Improvement of Higher-Performing Students (Q3) Are higher-performing students improving more or less than expected?	Individual student growth over the past three years is compared to the average for the state	20	20	
Improvement of Lowest-Performing Students (Q1) Are the lowest-performing students improving more or less than expected?	Individual student growth over the past three years is compared to the average for the state	20	20	
Opportunity to Learn	Attendance for all students	5		
Do students and families believe their school is a good place to attend and learn?	Classroom/parent survey	5	10	
Total		.	100	
Bonus Points Schools can earn points for reducing truancy, promoting extracurricular activities, engaging families, and using technology.	Bonus Points		+5	

Appendix B: High School Model and Points

Overall Model and Points - High Schools			Points	
	Percent Proficient	20		
Current Standing Are students performing on grade level? Did they improve more or less than expected?	Value-added conditioning of proficiencies, accounting for school characteristics for the past three years	10	30	
School Improvement Is the school as a whole making academic progress?	Value-added conditioning of performance, taking into account school characteristics for the past three years	10	10	
Improvement of Higher-Performing Students Are higher-performing students improving more or less than expected?	Individual student growth over the past 3 years is compared to the average for the state	10	10	
Improvement of Lowest-Performing Students Are the lowest-performing students improving more or less than expected?	Individual student growth over the past 3 years is compared to the average for the state	10	10	
Opportunity to Learn Do students and families believe their school is a good place to attend and learn?	Attendance for all students Classroom survey	3 5	8	
Graduation	Percent graduating in 4 years Percent graduating in 5 years Percent graduating in 6 years	8 3 2		
Graduation Are students graduating high school, and is the graduation rate improving?	Value added conditioning taking into account school characteristics for the past 3 years.	4	17	
Career and College Readiness Are students participating in college and career readiness opportunities? Are they demonstrating success?	Percent of all students that participated in one of the alternatives	5	15	
	Percent of participants that met a success benchmark	10		
Total			10	
Bonus Points Schools can earn points for reducing truancy, promoting extracurricular activities, engaging families, and using technology	Bonus Points		+5	

Appendix C: Point Boundaries for School Grading Indicators

Elementary and Middle Schools

High	School	S
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Indicator	Grade	Points*
Current Standing	Α	30.6 or above
	В	23.8 to 30.5
	С	18.9 to 23.7
	D	14.6 to 18.8
	F	14.5 or below
School Improvement	Α	8.9 or above
	В	6.6 to 8.8
	С	5.0 to 6.5
	D	3.4 to 4.9
	F	3.3 or below
Improvement of	Α	13.7 or above
Higher-	В	8.6 to 13.6
Performing -	С	5.8 to 8.5
Students	D	3.0 to 5.7
	F	2.9 or below
Improvement of	Α	18.6 or above
Lowest-	В	16.5 to 18.5
Performing -	С	14.2 to 16.4
Students	D	11.5 to 14.1
Students	F	11.4 or below
	Α	9.0 or above
Opportunity	В	8.0 to 8.9
to	С	7.0 to 7.9
Learn	D	6.0 to 6.9
	F	5.9 or below
	Α	75.0 or above
Overall Grade	В	60.0 to 74.9
	С	50.0 to 59.9
	D	37.5 to 49.9
	F	37.4 or below

^{*} Points are rounded in these tables for simplicity. In practice, however, figures are carried out to six or more decimals. Therefore, letter grades at the highest and lowest boundary of a point span may not be apparent because of rounding.

High Schools					
Indicator	Grade	Points*			
	А	18.8 or above			
Current	В	14.2 to 18.7			
Standing	С	10.9 to 14.1			
Stationing	D	9.0 to 10.8			
	F	8.9 or below			
	Α	8.9 or above			
Cabaal	В	6.6 to 8.8			
School	С	5.0 to 6.5			
Improvement	D	3.4 to 4.9			
	F	3.3 or below			
	Α	6.8 or above			
Improvement of	В	4.3 to 6.7			
Higher-	C	2.9 to 4.2			
Performing	D	1.5 to 2.8			
Students (Q3)	F	1.4 or below			
	Α	9.3 or above			
Improvement of	В	8.3 to 9.2			
Lowest-	C	7.1 to 8.2			
Performing	D	5.7 to 7.0			
Students	F	5.6 or below			
	Α	7.2 or above			
Opportunity	В	6.4 to 7.1			
to	С	5.6 to 6.3			
Learn	D	4.8 to 5.5			
	F	4.7 or below			
	Α	15.3 or above			
	В	13.6 to 15.2			
Graduation	С	11.9 to 13.5			
	D	10.2 to 11.8			
	F	10.1 or below			
	Α	11.3 or above			
College and Career	8	9.7 to 11.2			
D P	С	8.2 to 9.6			
Readiness	D	6.7 to 8.1			
	F	6.6 or below			
	А	75.0 and above			
	В	65.0 to 74.9			
Overall	С	50.0 to 64.9			
Grade	D	35.0 to 49.9			
	F	34.9 and below			

Appendix D: OPPORTUNITY-TO-LEARN SURVEYS

STUDENT SURVEY: GRADES 3-HIGH SCHOOL

- 1. I know what I should be working on in class.
- 2. My teacher introduces a new topic by connecting to things I already know.
- 3. My teacher checks to see if I understand.
- 4. My teacher wants me to explain my answers.
- 5. My teacher knows when I understand and when I do not.
- 6. My teacher explains things in different ways so I can understand.
- 7. My teacher wants me to try to correct my mistakes.
- 8. My teacher takes the time to summarize what I learn each day.
- 9. My teacher expects me to do my best.
- 10. My teacher notices when something is bothering me.

On the **Student** Survey, each item is answered with this scale: A) Never, B) Hardly Ever, C) Sometimes, D) Usually, E) Almost Always, and F) Always.

PARENT/FAMILY SURVEY: KN-GRADE 2

- 1. My child's teacher expects my child to do his/her best.
- 2. My child's teacher checks that my child understands the work.
- 3. My child's teacher can tell me about my child's strengths and weaknesses.
- 4. My child's teacher includes me in helping to improve my child's reading and math skills.
- 5. My child's teacher provides clear instructions for homework.
- 6. My child's teacher answers my questions.
- 7. My child's teacher provides regular feedback about my child's learning.
- 8. My child's teacher provides regular feedback about my child's behavior.
- 9. My child's teacher notices when something is bothering my child.
- 10. My child's teacher invites me to the classroom.

On the **Parent** Survey, each item is answered with this scale: A) I don't know, B) Hardly Ever, C) Sometimes, D) Usually, E) Almost Always, and F) Always.

History and Revisions

Date	Description of Major Changes	Reference	Author
2010	New Mexico adopts Common Core Standards		
December 2011	Preliminary grades supplemented but did not replace Adequate Yearly Progress	(AYP)	
February 2012	A-F School Grading System authorized by USDE with certain modifications		
July 2012	Current Standing VAM eliminates student demographics	VI. A. 4.	Gregory
July 2012	All indicators normalized to 2011	V. VAM	Gregory
July 2012	School Growth VAM eliminates student demographics	VI. B.	Gregory
July 2012	Opportunity to Learn includes student survey	VI. D.	Gregory
July 2012	Current Standing includes 10th grade students	VI. A. 3.	Gregory
July 2012	Graduation adds 6-year rate; denominator to 100%	VI. E. 3.	Gregory
July 2012	Graduation growth uses 3+1 year model	VI. E.	Gregory
July 2012	College Career Readiness (CCR) uses Shared Accountability system	VI. F. 3.	Gregory
July 2012	CCR added additional indicators	VI. F. 5.	Gregory
July 2012	No Cohort option for qualifying schools	VI. E. 2.	Gregory
July 2012	Supplemental Accountability Model (SAM) for qualifying schools	VI. I.	Gregory
July 2012	Participation requirement added	VI.	Gregory
July 2012	Bonus Points added	VI. G.	Gregory
July 2012	Schools with grades KN-2 only, method alterations	VI. H.	Gregory
February 2014	Participation uses different denominator	VII.	Gregory
February 2014	SAM CCR rates include Shared Accountability	VI.I.	Gregory
February 2014	Revised growth to recognize HS 10 th grade	VI.	Gregory
February 2014	Clarification and examples added	Throughout	Gregory
March 2015	First year, Partnership for Assessment of Readiness for College and Careers (PARCC) assessments		
December 2015	Aligned growth calculation with teacher evaluation model	VI.	Hall
July 2016	Simplified graduation growth	VI. E.	Wright
December 2016	LEA grading description added	VIII.	Gregory
August 2017	Current Standing returns to original weighting prior to PARCC	Appendices	Gregory