Arizona's School Accountability System 2010

Technical Manual

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1. Introduction

The federal No Child Left Behind Act of 2001 (NCLB) requires states to establish an accountability system to evaluate the performance of local public schools and school districts, including charter schools. Specifically, states are required to:

- Institute performance standards for reading/language arts, mathematics, and science.
- Develop and administer tests in reading/language arts, mathematics, and science in grades 3 through 8 and high school to measure whether students meet these standards. Arizona meets this requirement with the AIMS test.
- Establish a timeline to ensure that all students are proficient according to state standards by 2013-2014.
- Create a statewide accountability system to evaluate school progress in meeting the goals of the timeline, and issue report cards informing parents of school performance.

In 2001, Arizona voters approved Proposition 301 that, among other things, called for a state accountability system for public schools. Since the passage of NCLB and Proposition 301 the staff of the Arizona Department of Education (ADE) has worked with scholars, school officials ranging from superintendents to teachers to members of the public to develop an accountability system that fulfills the requirements of both laws. The result is a system that consists of two components. The system created to comply with NCLB, commonly referred to as Adequate Yearly Progress (AYP), provides a single-year snapshot of school performance. Arizona LEARNS was created to comply with Proposition 301. Its primary focus is on longitudinal change through time of student performance. Table 1.1 provides a brief comparison of the two accountability systems.

The State of Arizona's complete plan to meet the requirements of NCLB is contained in the workbook submitted to the U.S. Department of Education. The workbook is available at http://www.ade.az.gov/azlearns/workbook.asp.

Table 1.1 Comparison of Arizona's Accountability Systems for 2010

NCLB	Arizona LEARNS
Required by federal law	Required by state law
Components of evaluation • AIMS scores • Growth model • Percent students assessed • Attendance/Graduation rates	Components of evaluation • AIMS scores • Measure of Academic Progress • English language assessment • Graduation/dropout rates
Labels schools on a yes/no system	Labels schools on a graded scale: • Failing to meet academic standards • Underperforming • Performing • Highly performing • Excelling

2. Overview of the NCLB Evaluation System

This section provides an overview of how to calculate adequate yearly progress (AYP) for a school. More detailed discussions how to determine AYP, including descriptions of equations, algorithms, and data used are given in the following chapters.

The No Child Left Behind Act requires that every public school and district/charter holder in a state be evaluated on three measures:

1. Progress toward meeting the goal of 100 percent proficiency in state standards;
2. Percentage of students assessed; and
3. An additional measure of school performance. NCLB mandates that for high schools this indicator be the graduation rate. States may select an alternative indicator for elementary schools. Arizona, along with many other states, has chosen attendance rate for the other indicator for elementary schools.

If an entity—school or district/charter holder—passes on all three measures, then it is deemed to have made adequate yearly progress (AYP).

Schools to Be Evaluated

All schools—including extremely small schools, new schools, and schools that only offer grades K-2—must receive an AYP determination. Similarly, the state's system for school accountability, Arizona LEARNS provides profiles for all schools. A major difference in the two evaluations is that AZ LEARNS allows alternative and extremely small schools to be evaluated under different criteria where NCLB requires *all* public schools in the state to be given an AYP designation based on the same criteria.

Proficiency Standards

NCLB requires that every student in Arizona meet state standards in reading/language arts and mathematics—that is, pass AIMS—by the year 2013-2014. To further this goal, the state must set annual measurable objectives (AMOs) for each grade and subject evaluated. In Arizona, the grades evaluated by AIMS are three through eight, and high school. The annual measurable objectives describe yearly growth in fractions of students passing AIMS. These objectives are necessary for Arizona to reach the 100 percent requirement by 2013-2014. To make AYP an entity must reach the AMOs for both mathematics and reading/language arts in each grade it offers. If an entity fails to reach an AMO, it still may be deemed to have made adequate yearly progress if it satisfies the safe harbor provisions that will be described later.

In 2010 Arizona revised the annual measurable objectives (AMOs) for mathematics to account for implementation of new standards and a new test.

In June of 2008 the State Board of Education approved new math standards for Arizona. Students were first tested on these standards in the 2009-2010 school year. In June 2010, the State Board approved new performance standards for the math assessment, resulting in a more difficult test. The percentage of students proficient fell across all grades, with the size of the decrease ranging from 7 to 16 percentage points.

This decrease was not only caused by higher standards on the test, but was also the expected, transitory impact of a change in instruction. Teachers had to learn the new standards and adjust their instruction. Also, students may not have been exposed in previous years to material the standards now expect.

The AMOs were adjusted to allow for this transition period. The new AMOs will be first used for the AYP evaluations released at the beginning of the 2010-2011 school year, based on the 2009-2010 assessments.

The AMOs for Arizona are given in table 2.1 below.

Arizona Annual Measurable Objectives		
Grade 3	**Reading AMO (percent passing)**	**Math AMO (percent passing)**
2010	62.6	53
2011	71.9	65
2012	81.2	77
2013	90.5	88
2014	100	100
Grade 4		
2010	56	50
2011	67	63
2012	78	75
2013	89	88
2014	100	100
Grade 5		
2008-10	54.6	44
2011	65.9	58
2012	77.2	72
2013	88.5	86
2014	100	100
Grade 6		
2010	56	43
2011	67	57
2012	78	72
2013	89	86
2014	100	100
Grade 7		
2010	59.2	44
2011	69.4	58
2012	79.6	72
2013	89.8	86
2014	100	100
Grade 8		
2010	54.0	44
2011	65.5	58
2012	77.0	72
2013	88.5	86
2014	100	100
High School		
2010	48.6	48
2011	61.4	61
2012	74.2	74
2013	87.0	87
2014	100	100

There are two additional steps taken when determining if a school has met the AMO for a specific subject and grade. First, rather than comparing the actual percentage of students who are proficient to the AMO, a 99 percent confidence interval is calculated around the percent proficient. If the upper bound of this confidence interval is above the AMO, the school is deemed to have met the objective.

Second, if a school fails to meet the objective after the confidence interval is applied, it may still be deemed to have met the AMO if it meets the safe harbor provision. Safe harbor is a two-part test that requires schools to demonstrate sufficient progress over the previous year in the percentage of students failing to meet the standard *and* meet a threshold set by the Arizona Department of Education for an additional indicator. Both of the confidence interval and safe harbor will be discussed in more detail later.

Growth Model

In 2007, Arizona was approved by the U.S. Department of Education to implement a growth model for AYP evaluations. Under Arizona's growth proposal, students are only counted proficient in the current year, regardless of whether they have passed the AIMS, if they are making sufficient progress to reach proficiency within three years or by eighth grade, whichever comes first. If the percentage of students in a subgroup who meet their growth target is equal to or greater than the AMO, that subgroup has met the AMO for the AYP evaluation. The growth model is applied to grades four through seven. The growth model is not used for small schools, K-2 schools, and high schools.

In 2010, there was no growth model calculation for Math due to the changes in the AIMS Math test.

Percentage of Students Assessed

In order for a school or district/charter holder to make adequate yearly progress it must assess 95 percent of its students for each subject in every grade offered, including each applicable subgroup. Students count as assessed if they had a valid score for AIMS or the alternate assessment for the severely disabled, AIMS-A. Starting in 2006, in compliance with federal guidance, students who tested with alternate accommodations were not counted as tested.

All the students enrolled for the day of testing (high school) or the first day of the testing window (elementary) represent the population to be assessed.

Applicable Subgroups

In addition to assessing 95 percent of its students and meeting the annual measurable objectives for all subject/grade combinations it encompasses, an entity must also meet the same objectives for every applicable subgroup within each subject/grade combination. NCLB specifies the following subgroups be evaluated: the five major ethnic groups—Hispanic, White, African-American, Asian-Pacific Islander, and Native American—English Language Learners (ELL), students with disabilities (SPED), and students from low-income families. A student is identified as being from a low-income family if the Student Accountability Information System (SAIS) demographic information indicates she is eligible for a free or reduced lunch. Students are

considered program members (ELL, SPED, or free or reduced lunch) if they were enrolled in that program at any time during the school year at the school in which they were tested.

Additional Indicators of School Performance

NCLB requires that an additional indicator be used for AYP determinations. The law mandates that a four-year graduation rate be used for high schools, but allows states to select the standard schools must meet. In 2010, the performance goal for the high school graduation rate changed to 80 percent. To make adequate yearly progress, a high school must have a four-year graduation rate of 80 percent, or show a 2 percentage-point improvement in the graduation rate over the previous year.

NCLB allows states to select the additional indicator used for elementary schools. Arizona has chosen to use the school-wide attendance rate. The performance goal for the attendance rate was set at 90 percent. To make AYP, elementary schools must have a school-wide attendance rate of 90 percent, or show a 1 percentage-point improvement in the attendance rate over the previous year.

Putting It All Together

Table 2.2 provides an example of how the three performance measures—proficiency in state standards, percentage of students assessed, and an additional indicator—are combined to determine whether a school has made AYP. The example given is for a middle school serving grades 7 and 8. The school is evaluated based on student performance on AIMS reading and mathematics tests for these two grades, the percentage of students evaluated for each test and attendance rates. All the combinations for which a typical middle school would be evaluated under NCLB are provided; there are 73 separate combinations examined.

NCLB requires that schools be evaluated using a conjunctive model. That is, to make AYP, a school must meet the performance objective in *every* category in which it is evaluated. For example, if the school in table 2.2 fails to meet the objective in any one of the cells in the table, it fails to make AYP.

Table 2.2. Categories Evaluated Under NCLB for a Middle School								
Grade	Seventh				Eighth			
Subject	Math		Reading		Math		Reading	
Subgroup	Met 95% tested?	Met AMO?	Met 95% tested?	Met AMO?	Met 95% tested?	Met AMO?	Met 95% tested?	Met AMO?
All students	Yes/No	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
African American	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Asian-Pacific Islander	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Hispanic	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Native American	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
White	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Special Education	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
English Language Learner	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Low Income	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Met Other School wide Indicator: Attendance Rate?	Y/N							

3. Timeline

Districts and charter holders (Local Education Agencies - LEAs) are solely responsible for submitting the data necessary for calculating achievement profiles for their schools and for ensuring its accuracy. Because of the stakes involved and the volume and scope of the data used, the ADE considers it prudent to allow LEAs to review their data before preliminary AYP evaluations were carried out.

From March 15, 2010 through May 28, 2010 schools and LEAs were given the opportunity to review and correct the data used for calculating the four-year graduation rate used in the AYP evaluation. From June 21, 2010 through June 30, 2010 schools and LEAs were given an opportunity to review and correct their testing data through the common logon on the ADE web site. The primary purpose of the application was to allow LEAs to correct the information for individual students.

Schools and LEAs were also given the opportunity to correct student demographic and program information from March 22, 2010 through May 28, 2010. All program membership, demographic information, and student activity codes relevant to AYP evaluations were taken from the state's SAIS database of student records. Consequently, the only information that schools needed to correct in the ADE AIMS testing files were students' SAIS IDs (needed for matching). If any demographic or program information was incorrect, schools and LEAs were required to correct it in the SAIS database. Schools were not allowed to correct the indicators for alternate testing modifications.

IMPORTANT NOTE: The criteria used to select AIMS scores for evaluation of AYP differ from the criteria used to select scores for AZ LEARNS. Indeed, the criteria differ among the separate components of the AYP evaluation. The criteria also differ from the scores provided to schools by the testing contractor, and the scores publicly reported by ADE, which are available here: http://www.ade.az.gov/researchpolicy/AIMSResults/.

Timeline

The timeline for the 2010 AYP determinations was:

- March 15, 2010. Start of statistical review and appeals of graduation rate data.
- May 28, 2010. Close of statistical review and appeals of graduation rate data.
- June 21, 2010. Start of testing data verification process.
- June 21, 2010. Preliminary release of AYP evaluations for all schools and LEAs; opening of substantive appeals process.
- June 30, 2010. Close of testing data verification process.
- June 30, 2010. Closing of substantive appeals and data correction processes.
- July 28, 2010. Public release of AYP evaluations for all schools and LEAs.

4. Meeting the Annual Measurable Objectives for Proficiency

Calculation of Annual Measurable Objectives (AMOs)

This section describes the calculation used to determine if schools met the annual measurable objectives (AMOs) for student proficiency in math and reading/language arts. NCLB requires that schools meet the AMOs set by the state in order to make AYP. Schools must meet the AMOs for each subject/grade combination and all the applicable subgroups.

The formula used to calculate the percentage of students passing is:

$$\text{Percent Passing} = \frac{\text{\# of students meeting or exceeding the standard in AIMS}}{\text{\# of students tested}}$$

This fraction is rounded to two digits, e.g.: .941=.94; .946=.95.

To ensure that the decision regarding whether a school met the AMOs is reliable and not overly influenced by random factors, the determination for meeting the AMOs is made employing a 99 percent (one-tailed) confidence interval. The confidence interval methodology is designed to ensure that 99 out of 100 times the confidence interval will contain a school's true performance level. If the AMO in question is below the upper bound of the confidence interval calculated for the school, the school is deemed to have met the standard.

<u>Example.</u> Fifty percent of a school's third graders passed the AIMS mathematics test. The upper bound of the 99 percent confidence interval for this subject/grade combination for this school is calculated to be 56 percent. Since this is greater than the AMO of 54.6 percent, the school is considered to have met the standard.

Let p = the percent of students in a group passing the AIMS and n = the number of students in the group. Then the equation for the upper bound of the 99 percent confidence interval (UB99) is:

$$UB99 = p + 2.33\sqrt{p(1-p)/n}.$$

As can be seen from the equation, the confidence interval depends upon the percent of students who passed the test, and the number of students tested. Thus, the confidence interval will differ among grades, subjects, and schools.

The equation is an approximation of the confidence interval for a binomially distributed variable. It uses the standard normal distribution and is sufficiently accurate if the group size and percentage of students passing are large enough. For small values of n and small p, a more accurate estimate of the confidence interval is made using statistical tables that provide

confidence intervals for a binomially distributed variable.[1] The tables were applied using the rules given in table 4.1.

Table 4.1. Rules for Determining UB99 for Small n and p.

If $n \geq 40$ and $n < 45$, and	If $n \geq 55$ and $n < 60$, and
$p \geq 0.00$ and $p < 0.05$, UB99 = 0.13	$p = 0.00$, UB99 = 0.10
$p \geq 0.05$ and $p < 0.10$, UB99 = 0.22	
$p \geq 0.10$ and $p < 0.15$, UB99 = 0.28	If $n \geq 60$ and $n < 100$ and
$p \geq 0.15$ and $p < 0.20$, UB99 = 0.35	$p = 0.00$, UB99 = 0.09
If $n \geq 45$ and $n < 50$, and	If $n \geq 100$ and $n < 200$ and
$p \geq 0.00$ and $p < 0.05$, UB99 = 0.12	$p = 0.00$, UB99 = 0.06
$p \geq 0.05$ and $p < 0.10$, UB99 = 0.21	
$p \geq 0.10$ and $p < 0.15$, UB99 = 0.27	If $n \geq 200$ and
If $n \geq 50$ and $n < 55$, and	$p = 0.00$, UB99 = 0.00
$p \geq 0.00$ and $p < 0.05$, UB99 = 0.11	
$p \geq 0.05$ and $p < 0.10$, UB99 = 0.20	

Even if after calculating the confidence interval the percent of students proficient in a subgroup still falls short of the AMO, the group may still make AYP if its achievement indicators meet certain safe harbor provisions. To make safe harbor a subgroup has to meet the following two-part test:

a) Make a 10 percent decrease in the percentage of students failing to meet the standard (i.e. failing AIMS) from the previous year, and

b) Meet the performance goal or make a one-percentage point improvement for the additional indicator: graduation rate for high school and attendance rate for other grades.

Examples

1. In the current year, 50 percent of fifth graders in Gila Monster Elementary passed the AIMS reading test. The upper bound of the confidence interval was 52 percent, still below the annual measurable objective of 54.6 percent. However in the previous year, 40 percent of fifth graders passed the AIMS reading test, thus Gila Monster Elementary saw a decrease of 17 percent in the percentage failing [(50-60)/60 = -17 percent]. Furthermore, the attendance rate for Gila Monster's fifth grade was 96 percent, greater than the standard of 90 percent. So, Gila Monster's fifth graders make AYP in reading.

[1] Mansfield, Edwin. 1991. *Statistics for Business and Economics, 4th Edition.* New York: W.W. Norton and Company. 280-284.

2. In the current year, 50 percent of fifth graders in Javelina Elementary School passed the AIMS reading test. The upper bound of the confidence interval was 52 percent, still below the annual measurable objective of 54.6 percent. In the previous year, 48 percent of fifth graders passed the AIMS reading test, thus Javelina Elementary School saw a decrease of only percent in the percentage failing [(50-52)/52 = -4 percent]. Even though the attendance rate for Javelina's fifth grade was 96 percent, greater than the standard of 90 percent, it fails to make the safe harbor provisions, and so does not make AYP in fifth grade reading.

3. In the current year, 55 percent of third graders in Gila Monster Elementary passed the AIMS reading test. The upper bound of the confidence interval was 60 percent, still below the annual measurable objective of 62.6 percent. However in the previous year, 48 percent of third graders passed the AIMS reading test, thus Gila Monster El. saw an improvement of 13 percent in performance [(45-52)/52 = -13 percent]. However, the attendance rate for Gila Monster's third grade was 85 percent, less than the standard of 90 percent and the same as last year's attendance rate, so Gila Monster's third graders fail to make AYP in reading.

4. In the current year, 55 percent of third graders in Saguaro Elementary passed the AIMS reading test. The upper bound of the confidence interval was 60 percent, still below the annual measurable objective of 62.6 percent. However in the previous year, 48 percent of fifth graders passed the AIMS reading test, thus Saguaro Elementary saw an improvement of over 13 percent in performance [(45-52)/52 = -13 percent]. The attendance rate for Saguaro's third grade was 82 percent, less than the standard of 90 percent. However in the previous year, the attendance rate for Saguaro's third grade was 81 percent. Since Saguaro saw an 13 percent improvement in the percentage of third graders meeting the standard in math *and* a 1 percent improvement in the attendance rate for third graders, it meets the safe harbor provision for third grade math, and thus makes AYP.

Data Used

Students are included in the calculation if they meet the following criteria:

- Have taken either the AIMS or AIMS-A and received a score of FFB or above;

- Were enrolled in the school on the spring testing date (high school graduation cohort, cohort 2012 for 2010 test dates) or first day of the testing window (grades 3 through 8) and were matched to SAIS with valid ID;

- Were enrolled in the school for the full academic year. A student was considered enrolled for the full academic year if she enrolled in a school during the first 10 school days of the school year and remained continuously enrolled up through the testing date (first day of the testing window for grades 3 through 8). This information was obtained from SAIS.

- Did not take the test with alternate accommodations;

- Were not recently arrived limited English proficient (RALEP). A student was identified as RALEP if he met the following criteria: a) was enrolled in SAIS as a member in an English language learner program; b) has no enrollment in SAIS one year or more before the test date; c) his birthplace was outside of the United States; and d) the enrollment code for first enrollment in SAIS indicates that the student was not previously enrolled in any Arizona school.

Special Rules

Tests used. AIMS reading and mathematics tests are used for the AMO calculation. The writing test is not used.

High school cohort. The AMO calculation only includes students who are in their second year of high school. Thus, students retained in ninth grade are included. Students retained in 10th grade are not included.

Minimum group size. A group or subgroup is not evaluated if it had less than 40 test scores that meet the selection criteria.

Concurrently enrolled students. Students enrolled in two schools on the testing date are only included in the AMO determination of the school in which they were tested.

English language learners. For AMO determinations, former English language learners who have become proficient are included in the English language learner subgroup for two additional years. Former ELL students are not counted toward the minimum group size of 40.

Example 1. A school's ELL subgroup is made up of 50 students, of which 45 were enrolled in the ELL program and 5 former ELL students. This subgroup will be evaluated.

Example 2. A school's ELL subgroup is made up of 50 students, of which 35 were enrolled in the ELL program and 15 former ELL students. This subgroup will not be evaluated.

5. The Growth Model

The approved growth model is calculated for all subgroups for both schools and LEAs, parallel to the traditional AYP evaluation. The model looks at progress individual students make toward proficiency from one year to the next. The goal is proficiency within three years for grades three and four, or by the eighth grade for grades five through seven. Annual growth targets are set that measure each student's progress toward that goal. Students are deemed to have made sufficient progress if they meet the annual growth target. Scores for individual students are aggregated by the relevant subgroups. If the percentage of students in a subgroup that meets the target for growth is equal to or greater than the annual measurable objective (AMO), then the subgroup is considered to have met AYP.

Setting the Growth Targets

The growth target for each student is how much improvement measured by scale score points the student would have to make over her previous year's score in equal intervals in order to achieve proficiency within three years or by the eighth grade, whichever comes first. The growth target is set by subtracting the student's previous year scale score from the scale score for proficiency in the target grade and dividing by the number of remaining grades. The targets are rounded to the nearest whole number. Demographic factors are not used to set the target.

> Example: A student scores 402 on the 3rd grade math test in 2006. The passing score on the 6th grade math test is 496. The student's math score must improve 31 points each year—(496 – 402)/(6-3) = 94/3 = 31—for him to reach proficiency by 6th grade.

> Example. A student scores 469 on the 6th grade reading test in 2006. The passing score on the 8th grade reading test is 499. The student's reading score must improve 15 points each year—(499-469)/(8-6) = 30/2 = 15—for her to reach proficiency by 8th grade.

Determining If a Student Meets the Growth Target

To ensure that schools do not receive credit for spurious changes that may be a function of regression to the mean or statistical error, a corrected score is calculated for the student and compared to the growth target. To calculate the corrected score, current year scores are regressed on the previous year's scores using a regression model with school fixed effects. The estimated coefficients are used to generate predicted scores for the current year for each student. The standard error of the prediction is then used to evaluate whether the predicted value is truly larger than the growth target or whether the difference is due only to measurement error.

Specifically, the following equation is estimated by subject and grade:

$$Scalscor_{it} = \alpha_j + \beta Scalscor_{i,t-1} + \varepsilon_i . \qquad (1)$$

$Scalscor_{it}$ is the scale score of student *i* on the AIMS test for the current year.

$Scalscor_{i,t-1}$ is the scale score of student *i* on the AIMS for the previous year.

α_j is the fixed effect for school *j*; ε_i is a normally distributed error term with mean zero and standard deviation σ.

The estimated coefficients are then used to generate predicted scores, $PRED_{it}$, for each student:

$$PRED_{it} = \hat{\alpha}_j + \hat{\beta} Scalscor_{i,t-1}.$$

Also estimated is the standard error of the prediction: $SEPRED_{it.}$ The lower bound value found using the 97.5th percentile of the t distribution is then calculated for the prediction:

$$Lower_{it} = PRED_{it} - t_{2.5}\, SEPRED_{it};$$

where $t_{2.5}$ is the 97.5th percentile of the t distribution.

If $Lower_{it} \geq$ Growth Target, then the student is deemed to have met the growth target. This estimate is used to evaluate whether the fitted value at time *t* is truly larger than the expected score at time *t*.

The standard error of the prediction is calculated using the following formula:

$$SEPRED_{it} = \sqrt{h_i s^2}$$

where $h_i = x_i (X'X)^{-1} x_i'$; *X* is the matrix of regressors, x_i is the *i*th row of X, and s^2 is the mean squared error.

The estimates of the parameters, the predicted values, and the standard errors of the predicted values are all generated using the SAS PROC MIXED procedure. Since we assume there are no random effects and the variance is constant across schools, the procedure is equivalent to ordinary least squares.

The following table shows the results for 4th grade math for a single school.

Table 5.1 Annual Growth Target for 4th Grade Math

Student	3rd Grade Score	3rd Grade Performance Level	4th Grade Score	Predicted 4th Grade Score	Standard Error of Prediction	Lower Bound	Growth Target	Met Growth Target?
A	362	FFB	447	417	4.27	409	407	Y
B	409	A	456	455	4.27	447	438	Y
C	456	M	470	493	4.27	485	469	Y
D	521	E	579	546	4.27	537	513	Y

For this grade, subject, and school the estimated parameters are:

$$\hat{\alpha}_j = 123.26;$$
$$\hat{\beta} = 0.8111.$$

Sample calculations are given for student A:

$$PRED_A = 123.26 + 0.8111 \text{ X } 362 = 417$$

$$LOWER_A = 417 - 1.96 \text{ X } 4.27 = 409.$$

where $t_{2.5}$ with 62,600 degrees of freedom is approximately 1.96.

The following example illustrates how the expected score at time *t* is determined for student A:

$$\text{Annual growth target} = (496 - 362)/(6 - 3) = 45.$$

The student must score 362 + 45 = 407 on the 4th grade math test in order to meet the growth target. Since 409 > 407, the student met the growth target.

Meeting the AMO

To determine if a subgroup meets the AMO, the following percentage is calculated:

$$\frac{\text{\# of students (proficient and non-proficient) meeting growth target}}{\text{\# of students in analysis}}$$

If this percentage is greater than or equal to the AMO, then the group is deemed to have made AYP.

Data Used

Students are included in the calculation if they meet the following criteria:

- Have taken either the AIMS or AIMS-A and received a score of FFB or above;
- Were enrolled in the school on the testing date and were matched to SAIS with valid ID;
- Were not recently arrived English language learners. A student was identified as a recently arrived English language learner if he met the following criteria: a) was enrolled in SAIS as a member in an English language learner program; b) has no enrollment in SAIS one year or more before the test date; c) his birthplace was outside of the United States; and e) the enrollment code for first enrollment in SAIS indicates that the student was not previously enrolled in any Arizona school.
- Did not take the test with alternate accommodations;

- Were enrolled in the school for the full academic year. A student was considered enrolled for the full academic year if she enrolled in a school during the first 10 school days of the school year and remained enrolled up through the testing date. This information was obtained from SAIS.

Special Rules

Unmatched students. Students without a score for the previous year are counted at their current performance level. Proficient students are considered to have met their growth target; non-proficient students are considered to not have met their growth target.

Inclusion of students. To be included in the growth measure a student must have been enrolled in his current school for the full academic year. However, to be included a student does not have to have been enrolled in the same school or LEA for two consecutive years. Furthermore, to be included, a student does not have to have been enrolled for a full academic year the previous year.

Minimum group size. Only subgroups with 40 or more students who have been present the full academic year are evaluated.

Confidence interval. A confidence interval is not used for the growth model.

New growth targets are set for each student, each year. The model sets new individual growth targets for each student each year. The clock starts over for students who leave and then return to the Arizona public school system.

> Example. A student enrolls in school A in third grade. The next year she enrolls in school B. She must be proficient by sixth grade.
>
> Example. A student enrolls in school A in third grade. The next two years she attends a private school. She re-enrolls in school A as a sixth grader. She must be proficient by eighth grade.

Alternate tests. Students who take the AIMS-A are included in the growth model. Students who move up a performance level are considered as having met their growth target.

Table 5.2. Met Annual Growth Target for Alternate Assessment

	Performance Level Current Year			
Performance Level Previous Year	**FFB**	**A**	**M**	**E**
FFB	N	Y	Y	Y
A	N	N	Y	Y
M	N	N	Y	Y
E	N	N	N	Y

Third and eighth grade. These grades are evaluated using the standard status/safe harbor method rather than the growth model.

K-2 schools, high schools, and small schools. The growth model is not used in the evaluation of K-2, small, or high schools. Those schools continue to be evaluated using the current method.

6. Meeting the Goal for Number of Students Tested

Calculation

This section describes the calculation used to determine if a school has assessed 95 percent of its students. To make AYP, schools must test 95 percent of their students in reading and mathematics in all grades in which AIMS is administered, and must test 95 percent of their students in each applicable subgroup.

The formula used to calculate the percentage of students tested is:

$$\text{Percent Tested} = \frac{\text{Number of students tested}}{\text{Number of students enrolled}}$$

The fraction of percent tested is rounded to two digits, e.g.: .941=.94; .946=.95.

Data Used

Number of students tested. A student is counted as tested if she took either the AIMS or AIMS-A and received a score of FFB or above; was enrolled on the spring testing date (for high school) or first day of the testing window (grades 3 through 8); and was matched to SAIS with valid ID. Students who receive a score of Did Not Attempt (DNA) or took the test with alternate accommodations are not counted as having tested.

Number of students enrolled. A student is counted as enrolled if she is enrolled first day of the testing window (for grades 3 through 8), or she is enrolled on the specified test day (for high school). For high school, enrollment used is the number of students in the specified graduation cohort (cohort 2012 for 2010 test dates) for the day the test was administered. Students are counted in the enrollment of a program subgroup (ELL, SPED, free or reduced lunch) if they participated in that program at the school in which they were tested at anytime during that school year.

Special Rules

Tests used. AIMS reading and mathematics tests are used for the AMO calculation. The writing test is not used.

High school cohort. The percent tested calculation only includes students who are in their second year of high school. Thus, students retained in ninth grade are included. Students retained in 10th grade are not included.

Minimum group size. A group or subgroup is not evaluated if it had less than 40 students enrolled on the relevant day. A sample size of 40 was considered large enough to provide statistically meaningful results.

Best of current year or three-year average. If a school does not test 95 percent of its students in a subgroup for the current year, a three-year average of percent of students tested is calculated using the following formula:

$$\text{Percent Tested} = \frac{\text{\# tested in 2008} + \text{\# tested in 2009} + \text{\# tested in 2010}}{\text{\# enrolled in 2008} + \text{\# enrolled in 2009} + \text{\# enrolled in 2010}}$$

If the three-year average is greater than or equal to 95 percent then the subgroup is deemed to have met the goal of testing 95 percent of its students.

Concurrently enrolled students. If a student is enrolled in two schools on the testing date and has tested in one of the schools, she is included in the percent tested calculation of the school in which she was tested. She is not included in the calculation, neither in the number tested nor the number enrolled, of the other school. If a student is enrolled in two schools on the testing date and has tested in neither school, she is counted against both schools.

7. Additional Indicators of School Performance

This section describes the calculation used to determine if a school met the additional performance indicators for AYP. NCLB requires that schools be evaluated on a third performance indicator as well as percentage of students assessed and percentage of students proficient in the standard. The law requires that graduation rate be used for the third indicator for high schools, and gives states the discretion to choose the third indicator for elementary schools. Arizona has chosen the school-wide attendance rate as the third indicator for elementary schools. To make AYP a high school must have a graduation rate of 80 percent; an elementary school must have an attendance rate of 90 percent.

Attendance Rate

Calculation. The formula used to calculate the attendance rate is:

$$\text{Schoolwide Attendance Rate} = \frac{\text{Average Daily Attendance}}{\text{Average Daily Membership}}$$

The attendance rate is rounded to two digits, e.g.: e.g.: .891=.89; .896=.90.

Data used. The average daily attendance (ADA) and average daily membership (ADM) for the 100-day counts for <u>all</u> grades, except for pre-school and kindergarten, offered by a school are used in the calculation.

Safe Harbor. If a school demonstrates a one-percentage point improvement in its attendance rate from the previous year, it is deemed to have met the performance standard. The growth rate is rounded to the nearest hundredth of a point, e.g. .009 = .01, .004=.00.

> ***Example.*** Gila Monster Elementary had an attendance rate in the current year of 88 percent, less than the standard of 90 percent. However, its attendance rate for the previous year was 86 percent. Gila Monster Elementary demonstrated an improvement of two percentage points over the previous year, and so is deemed to have met the requirements for attendance rate.

Special rules. Safe harbor is not determined for schools with an ADM of less than 40. However, if they do not meet the goal in the current year, they are considered to have met the goal if the weighted average of the attendance rates over the past three years is greater than 90 percent.

Graduation Rate

The Graduation Rate is a four-year, longitudinal measure of how many students graduate from high school. The formula used to calculate the graduation rate is:

$$\text{Graduation Rate} = \frac{\text{Number in cohort who graduated within four years}}{\text{Original cohort + Transfers in - Transfers out}}$$

The graduation rate is rounded to two digits, e.g.: .705=.71; .704=.70.

Data used. Federal requirements mandate that Arizona use the four-year graduation rate rather than the five-year rate used for Arizona LEARNS. The graduation rate was for the cohort class of 2009, which represents the most recent graduation rate available, was used for the calculation; with growth being measured against the graduation rate for the cohort class of 2008.

Students are considered a potential member of the cohort of 2009 if:

1. The student enrolled as a 9th grader or ungraded secondary (US) for the first time in the 2005-2006 school year.

2. The student enrolled as a 10th grader or US in the 2006-2007 school year, and had not previously enrolled in a high school grade (9-12, US).

3. The student enrolled as an 11th grader or US in the 2007-2008 school year, and had not previously enrolled in a high school grade (9-12, US).

4. The student enrolled as a 12th grader or US in the 2008-2009 school year, and had not previously enrolled in a high school grade (9-12, US).

For the calculation of the four-year graduation rate students in the cohort fall into three categories:

A. Students who have graduated. These are students in the cohort of 2009 who have graduated on or before the beginning of the 2010 school year (defined as September 1, 2010). They have exit/year-end codes of W7, G, or S7.

B. Students who remain in the cohort but have not graduated. These are students in the cohort of 2009 who remained in school but have not graduated, or who have left the school and have not re-enrolled in another school. They have exit/year-end codes of W2, W3, W4, W5, W10, W11, W12, W13, S2, S3, S4, S5, S10, S11, S12, S13, C, A, SA, SC, or SE.

Note: Students with year-end codes P or R are considered dropouts if there is no subsequent enrollment or appropriate summer withdrawal.

C. Students who have exited the cohort. These are students who were in the cohort of 2009 but who have exited the cohort. They have exit/year-end codes of W1, W6, W8, W9, S1, S99, S6, S8, and S9.

$$\text{Graduation Rate} = \frac{\text{Students in category A}}{\text{Students in category A} + \text{Students in category B}}$$

Because the graduation rate is a cohort measure, schools should especially be aware that:

1. A school is responsible for students in Category B above if it is their last school of record even if the students were not enrolled in that school in the 2009 school year.

2. A student may be a member of the 2009 cohort because of an enrollment in ninth grade in another school regardless of when the student was considered a 9th grader in her current school.

Safe Harbor. If a school demonstrates a two percentage point improvement in its graduation rate from the previous year, it is deemed to have met the performance standard. The growth rate is rounded to the nearest hundredth of a point, e.g. .005 = .01, .004=.00.

> ***Example.*** Gila Monster High School had a graduation rate in 2009 of 79 percent, less than the standard of 80 percent. However, its 2008 graduation rate was 77 percent. Gila Monster High demonstrated an improvement of two percentage points over the previous year, and so is deemed to have met the requirements for graduation rate.

Special rules. Safe harbor is not determined for schools with a current-year cohort of less than 40. However, if they do not meet the goal in the current year, they are considered to have met the goal if the weighted average of the graduation rates over the past three years is greater than 80 percent.

8. Calculation of Adequate Yearly Progress for K-2 Schools

The No Child Left Behind Act requires that a state evaluate *all* schools. Consequently, an alternative methodology for determining adequate yearly progress (AYP) had to be developed for schools that did not offer any of the grades in which AIMS is administered. In Arizona, this group consisted of schools that offered grades two and below.

Meeting the 95 Percent Tested Requirement and Annual Measurable Objectives

Starting in 2008, K-2 schools are evaluated based on all three of the same criteria as all other schools: whether they meet the annual measurable objectives, percent tested and attendance rate. Because AIMS is not administered in these schools, the AMO and percent tested evaluations used the data based on the AMO and percent tested determination of the 3rd grade of the school to which it sends the plurality of its students.

Example. Desert Primary School feeds three different schools. Most of its students go to Mountain Elementary School. The AYP evaluation for Desert Primary is based on the 3rd grade of Mountain Elementary. If Mountain Elementary tests only 93 percent of its 3rd graders, or its 3rd graders fail to make the AMO, then Desert Primary will also not make AYP.

Special rules. For the purposes of AYP, a K-2 school may serve grades higher than grade 2; however, the sum of all of the enrollments for all grades above 2 may not be greater than 10.

9. Calculation of Adequate Yearly Progress for Small Schools

The No Child Left Behind Act requires that a state evaluate *all* schools. Consequently, an alternative methodology for determining adequate yearly progress (AYP) had to be developed for schools that did not have any grade with 40 students enrolled. All the calculations are done the same way for small schools as the regular schools. There are two differences: (a) Three years of data is used in the calculations (b) Small schools do not get safe harbor part of the calculation. This is explained in detail below.

Meeting the 95 Percent Tested Requirement

For this calculation, the current year percent tested is calculated as well as the three year average. In the current year, if 95 percent of the students were tested, the school has met the 95 percent requirement. The formula used to calculate the percent tested in the current year is:

$$\text{Percent Tested} = \frac{\text{\# tested in 2010}}{\text{\# enrolled in 2010}}$$

Data is aggregated across three years to evaluate whether 95 percent of the students were tested in the past three years. The formula used to calculate percent tested is:

$$\text{Percent Tested} = \frac{\text{\# tested in 2008} + \text{\# tested in 2009} + \text{\# tested in 2010}}{\text{\# enrolled in 2008} + \text{\# enrolled in 2009} + \text{\# enrolled in 2010}}$$

Meeting the Annual Measurable Objectives in Small Schools

Annual measurable objectives are calculated by aggregating data for the past three years. The same rules are used for excluding students as with other schools. For small schools, there is no safe harbor because improvement cannot be determined.

The formula used to calculate the percent passing is:

$$\text{Percent Passing} = \frac{\text{\# passing in 2008} + \text{\# passing in 2009} + \text{\# passing in 2010}}{\text{\# tested in 2008} + \text{\# tested in 2009} + \text{\# tested in 2010}}$$

The upper bound of a 99 percent confidence interval is also calculated for small schools. Please refer to regular school calculations which are discussed in an earlier chapter.

Meeting the Additional Indicator

Additional indicators for small schools are calculated in the same manner as for other schools, however due to the above differences, these schools may meet the required percentage level either using the most recent year's data (2009 for attendance or 2008 for graduation rate) or a three year average.

10. Determining Adequate Yearly Progress for School Districts and Charter Holders

The No Child Left Behind Act requires that local education agencies (LEAs), districts and charter holders, be evaluated for Adequate Yearly Progress. The method for determining AYP for LEAs is analogous to that used for schools with data being aggregated to the LEA level as if the LEA were one large school.[2] The details of the AYP calculation for LEAs are nearly identical to that for schools.

- LEAs are evaluated for percentage of students passing AIMS, percentage of students assessed, and a third indicator.
- Annual Measurable Objectives (AMOs) and the performance goals for percentage of students assessed, attendance rate, and graduation rate are the same for LEAs as they are for schools.
- The applicable subgroups for AYP evaluation are the same for LEAs as they are for schools.
- Confidence intervals, safe harbor provisions, and minimum group size requirements are applied to LEA AYP using the same methodology and parameters as for school AYP.
- The growth model is applied using the same methodology as for schools. However, since the regression used to calculate the predicted score is calculated separately at the LEA and school levels the parameters for the growth model differ at the school and LEA levels. Consequently, students' predicted scores and the lower bounds of the predicted scores used for LEA AYP evaluations may vary from those used for the school AYP evaluations.
- LEA AYP uses a conjunctive model. To make AYP, a LEA must meet all the performance standards for all subjects, grades, and subgroups that are applicable.

Differences between LEA and School AYP Evaluation Methods

There are three differences between the AYP evaluation method used for LEAs and that used for schools.

1. ***Measure of student mobility.*** NCLB requires that students mobile with respect to an entity are not included in the AMO part of the AYP evaluation. For a school, this means excluding students who were not continuously enrolled at that school. LEA level mobility is determined by whether the student was continuously enrolled in the LEA, even if she was enrolled in different schools.

[2] All statements in this section apply to both districts and charter holders. For the sake of brevity, we use "district" to refer to both types of entities/LEAs.

2. ***Limit on the number of students with alternative assessment who count toward meeting the proficiency standard.*** NCLB mandates that the number of students who take an alternative assessment who count as being proficient may not be greater than 1 percent of the total number enrolled in the grades tested. For AYP determinations since 2005, students who took the AIMS-A are considered to have taken an alternate assessment. Federal guidance requires that students be treated consistently at all levels of accountability. Therefore a student who is deemed not proficient because her LEA exceeded the 1 percent cap will be deemed not proficient when determining if her school met AYP as well.

   Example. In 2009 Gila Monster Elementary District has 1000 students enrolled in grades three through eight and cohort 2011. Only one percent can be counted as proficient for AMO for AIMS-A. One percent of 1000 is 10, therefore, if 20 students took the AIMS-A and 15 of them were proficient, only 10 of them will be counted as proficient when determining if Gila Monster Elementary District met the AMO. The other five students will be counted as not proficient.

3. ***Graduation/Attendance Rates.*** Graduation rate is used as the third indicator required by NCLB for unified and high school LEAs. Attendance rate is used for elementary LEAs.

11. Adequate Yearly Progress (AYP) Appeals Process

The Adequate Yearly Progress (AYP) Appeals Process developed by the Arizona Department of Education (ADE) provides LEAs and schools the opportunity to appeal their AYP determinations. In accordance with Title I, Section 1116 of the No Child Left Behind Act of 2001 (NCLB), the ADE allows LEAs and schools to appeal their respective AYP determinations for statistical and/or substantive reasons.

Procedure and Timeline

Step 1: Data Correction. The first step in completing the AYP Appeals Process required *all* LEAs and schools to review *all* data in order to confirm its accuracy. Data correction took place March 15, 2010 through June 30, 2010. It is important to note that LEAs were solely responsible for verifying information. If an entity did not verify the information for its LEA and schools through the correction process, the ADE assumed the data available were correct as listed.

Step 2: Substantive Appeal Submission. Administrators choosing to appeal a LEA or school AYP determination submitted AYP appeals via e-mail to the Research and Evaluation Section during the specified appeal window. Substantive appeals were accepted from June 21, 2010 through June 30, 2010.

LEAs and schools were able to appeal AYP determinations in two categories: data (statistical) and non-data (substantive) reasons – LEAs and schools were not limited to one category and were able to appeal in both if necessary. Statistical appeals are appeals of the accuracy of the data used in the AYP determination. Given the extensive time allowed to view and correct the data, it is expected that any errors should be corrected by the time preliminary profiles are released. Statistical appeals were not granted unless the underlying data was corrected. Substantive appeals are arguments by LEAs and schools that that circumstances outside of the LEA's/school's control negatively affected school performance on any of the AYP indicators.

Administrators that chose to appeal a school or LEA AYP determination must have clearly articulated the issues they believe merited an appeal. Administrators must have submitted evidence that the issues they believe merited an appeal directly resulted in a *significant* decrease in student academic achievement as demonstrated on the AIMS and/or a decrease in student participation during the administration of AIMS. The evidence must have been submitted to ADE at the time the appeal was submitted. Failure to provide this evidence resulted in the appeal not being granted. Evidence submitted after the appeal deadline closed was not considered.

NOTE: In order to protect student privacy and the integrity of the appeals process, schools were asked to refer to a specific student only by that student's SAIS ID. The SAIS ID was required so that ADE staff could verify the contentions in the appeal.

The ADE, if necessary, requested that a school or LEA administrator provide additional information/evidence to assist in the appeals process. Only those requests for additional information that were provided during the specified time-frame allotted were included in the appeals process. Requests submitted after the specified time-frame were excluded from the appeals process. Unsolicited additional information submitted after the appeal deadline was not accepted.

Both school and LEA AYP determinations were separate and distinct. Schools and LEAs had to submit separate appeals for both if necessary. Appealing the school determination did not have an impact on the LEA determination or vice versa.

Step 3: Appeal Resolution. After all appeals were submitted and the appeals window closed, the ADE began to process the appeals. Appeals were addressed categorically, not necessarily in the order received, so the fact that a school or LEA submitted its appeal during the first day of the appeal window did not mean it necessarily received a decision first during the resolution process.

Statistical appeals were resolved only through recalculation of the AYP evaluation by ADE staff using any corrected data submitted by the school. The purpose of a statistical appeal is principally to advise ADE staff that data was in error and has been corrected. Calculations submitted by schools via an appeal were not taken at face value nor used to alter an AYP evaluation if the underlying data was not corrected.

Substantive appeals were resolved in a committee process. Committee members represented a diverse background of ADE staff and school administrators to ensure that appeals were considered from multiple perspectives. Appeals were evaluated using an appeals rubric that evaluated the significance of the argument presented and how the circumstances presented in the argument affected the LEA's or the school's performance. The committee based their decisions on the following criteria:

1. ***Was the circumstance that affected the school outside of its control?*** Appeals involving the adverse affect of school or LEA policies; errors made by school or LEA personnel regarding test administration or data entry; or events whose impact could have been foreseen and mitigated by school or LEA action were not considered valid appeals.

2. ***Did the special circumstance actually have an impact on performance?*** Schools or LEAs must have shown that the adverse circumstance had a real impact on test scores or other performance measures.

3. ***Was this problem one that was recurring and likely to happen in the future?*** Appeals regarding recurring events or circumstances, such as student demographics, were not considered valid.

4. ***Was the problem eligible for appeal?*** Arguments that targeted NCLB regulations and ADE policy were not valid. For example, schools or LEAs could not argue that the 95 percent tested threshold be lowered for their school or that certain subgroups be excluded from the requirements.

5. ***Did the LEA or school provide compelling evidence of the circumstance?*** Compelling evidence of impact needed to be provided to support all substantive appeals. For example, if percent of students tested objective was not met, specific details to support the claim needed to be provided with the appeal at the time it was submitted. Simply stating "Students were absent and unable to make up the test" was not compelling; the committee needed to know *why* the students were unable to make up the test such as being extremely ill, suspended, incarcerated, or dealing with a family emergency for the entire test window.

Once all appeals were resolved, notifications were sent to the LEAs and/or schools that filed appeals. The contact person of record for the LEA/school received an email from Achieve with directions as to how to access appeal information via the Common Logon when the appeal had been processed. LEAs and schools were notified before the final public release of the AYP determinations as to the outcome of the appeal process. All appeals were final.

12. School Improvement and LEA Improvement Designations

Overview

While all public schools and local education agencies (LEAs) participate in Arizona's NCLB-based accountability program, AYP results from entities receiving Title I funds are additionally examined to determine if an entity is required to participate in the ADE School Improvement Program or LEA Improvement program. Details regarding specific consequences and support may be found at http://www.ade.az.gov/schooleffectiveness/schoolimprovement. The rules governing required participation in these programs are distinctive for schools and LEAs and are explained in the following sections.

School Improvement Program Participation

Title I schools identified for participation in the School Improvement Program participate at one of the following sequential levels of support:

- Warning
- Year 1 School Improvement
- Year 2 School Improvement
- Year 3 School Improvement (Corrective Action)
- Year 4 School Improvement (Plan to Restructure)
- Year 5 School Improvement (Implement Restructuring Plan)

When a school initially fails to meet AYP requirements, they are identified as being in a Warning year.

If a school fails to meet one or more identical indicators (i.e., reading[3], mathematics[4], or the additional indicator of attendance or graduation rate) for two consecutive years, the school then advances to the next level of the School Improvement Program.

If a Title I school does not meet AYP for two consecutive years, yet data indicates that the school has not missed in the same indicator for both years, then the school remains at the previous level of School Improvement and is considered *frozen*.

A school must meet all AYP requirements for two consecutive years in order to no longer be identified for participation in the School Improvement Program.

[3] The reading indicator includes meeting the required percent tested in reading and meeting the reading AMO. Failure to meet either of these will result in the reading indicator not being met.
[4] The mathematics indicator includes meeting the required percent tested in mathematics and meeting the mathematics AMO. Failure to meet either of these will result in the mathematics indicator not being met.

If a school that is participating in the School Improvement Program at a level of Year 1 School Improvement or beyond meets all AYP requirements, then the school continues to participate in the School Improvement Program at its current level and is considered frozen until AYP is met for two consecutive years.

For schools that have been identified at the Warning level, if the school meets all AYP requirements in the following year, then the school is no longer identified for participation in the School Improvement Program.

Example One
Consider the example of Desert Water Elementary that by 2006 had been identified at the level of School Improvement Year 1. In 2006 Desert Water Elementary missed the reading and attendance indicators. The AYP data for Desert Water Elementary for 2006 and the following three years were as follows:

Indicator	**2006**	**2007**	**2008**	**2009**
Reading	not met	not met	met	met
Mathematics	met	met	met	met
Attendance	not met	met	met	Met

The 2007 data resulted in Desert Water Elementary advancing to the level of School Improvement Year 2 because the reading indicator had not been met for two consecutive years (2006 and 2007). In 2008 Desert Water Elementary met all indicators and remained frozen at the level of School Improvement Year 2. The 2009 data resulted in Desert Water Elementary no longer being identified for participation in the School Improvement Program because it had met AYP for two consecutive years.

Example Two
Consider now the example of Watery Desert Elementary that by 2006 had also been identified at the level of School Improvement Year 1. In 2006 Watery Desert Elementary missed the reading and attendance indicators. The AYP data for Watery Desert Elementary for 2006 and the following three years were as follows:

Indicator	**2006**	**2007**	**2008**	**2009**
Reading	not met	not met	met	met
Mathematics	met	met	not met	not met
Attendance	not met	met	not met	met

The 2007 data resulted in Watery Desert Elementary advancing to the level of School Improvement Year 2 because the reading indicator had not been met for two consecutive years (2006 and 2007). In 2008 Watery Elementary missed the mathematics and the attendance indicators but it had not missed any one indicator for two consecutive years. Consequently, Watery Elementary remained at the level of School Improvement Year 2 but was additionally identified as being frozen. The 2009 data then led to Watery Desert advancing to the level of Corrective Action because the mathematics indicator had not been met for two consecutive years.

Example Three
Consider the example of Spruce High School that by 2006 had been identified at the level of School Improvement Year 1. In 2006 Spruce High School missed the reading and graduation indicators. The AYP data for Spruce High School for 2006 and the following three years were as follows:

Indicator	2006	2007	2008	2009
Reading	not met	not met	not met	met
Mathematics	met	not met	not met	met
Graduation	not met	not met	not met	not met

The 2007 data resulted in Spruce High School advancing to the level of School Improvement Year 2 because the reading and the graduation indicators had not been met for two consecutive years (2006 and 2007). Failure to meet either the reading or the graduation indicator in 2007 would have led to Spruce Mountain entering the School Improvement Year 2 level. In 2008 Spruce High School missed all indicators and advanced to the level of Corrective Action. In 2009 although Spruce High School met both the reading and mathematics indicator, the failure to meet the graduation requirement for two consecutive years (2008 and 2009) led to the school being identified for the Plan to Restructure level of the School Improvement Program.

LEA Improvement Program Participation

Title I LEAs identified for participation in the LEA Improvement Program participate at one of the following sequential levels of support:

- Year 1 LEA Improvement
- Year 2 LEA Improvement
- Year 3 LEA Improvement (Corrective Action)

A Title I LEA is identified for LEA Improvement only when it misses AYP in the ***same*** *subject*[5] and in ***all*** *grade spans* for two consecutive years, or the other academic indicator (i.e., attendance or graduation) in ***all*** *grade spans* for two consecutive years. Applicable grade spans are K-5, 6-8, and 9-12.

Similarly, a Title I LEA advances to the next level of LEA Improvement only when it misses AYP in the ***same*** *subject* and in ***all*** *grade spans* for two consecutive years, or the other academic indicator (i.e., attendance or graduation) in ***all*** *grade spans* for two consecutive years.

For LEAs containing both elementary grade spans and the high school grade span, the additional academic indicator assessed for LEA improvement is graduation rate.

[5] The assessed subjects are mathematics and reading. Each subject is assessed separately. Each subject requirement includes meeting the required percent tested in the subject *and* meeting the subject AMO. Failing to meet either percent tested or AMO within a subject results in the subject indicator not being met.

Example 4 (X = indicator not met)

	Elem. Reading	Middle Reading	H.S. Reading	Elem. Math	Middle Math	H.S. Math	Elem. attendance	Middle attendance	Grad Rate
Year 1	X	X	X						
Year 2	X	X	X						
In this example, the LEA has missed AYP in the **same** subject (reading) across **all** grade spans for two consecutive years. Thus, the LEA would be identified for improvement.									

Example 5 (X = indicator not met)

	Elem. Reading	Middle Reading	H.S. Reading	Elem. Math	Middle Math	H.S. Math	Elem. attendance	Middle attendance	Grad Rate
Year 1								X	X
Year 2							X		X
In this example, the LEA has missed AYP in the graduation indicator for two consecutive years. Thus, the LEA would be identified for improvement.									

Example 6 (X = indicator not met)

	Elem. Reading	Middle Reading	H.S. Reading	Elem. Math	Middle Math	H.S. Math	Elem. attendance	Middle attendance	Grad Rate
Year 1		X	X	X	X	X			**X**
Year 2	X		X		X			**X**	
In this example, the LEA missed AYP in mathematics across **all** grade spans in Year 1. To be identified for improvement, the LEA would have to miss AYP across **all** grade spans in the **same** subject, mathematics, or again miss graduation rate, in Year 2. While the LEA missed AYP in middle school mathematics, it did not miss the AYP targets across **all** grade spans in mathematics for Year 2. The LEA made the elementary and high school math targets. Additionally, even though the LEA missed the additional indicator in middle attendance, since it contains both elementary and high school grade spans, it would need to have missed grad rate in Year 2 to be identified for improvement in this category. Thus, the LEA is not identified for improvement, but will be reported as missing AYP.									