

**New Jersey Department of Education  
Office of Student Achievement and Accountability**

**Understanding Accountability in New Jersey for 2008 State Assessments  
(Elementary School and Middle School Grade Spans)**

**Background**

**Federal Requirements:** The federal *No Child Left Behind Act* (NCLB) requires all states to establish standards for accountability for all schools and districts in their states. Furthermore, it calls for the inclusion of *all* students, even students who may have been excluded or exempted from participating in state assessment programs in the past. The foundation for the accountability system is based on a state's academic content standards, which define what students should know and be able to do, and aligned assessments to measure whether students have mastered these standards. The accountability system looks at the degree to which students across schools and districts are mastering the state standards. NCLB has set the goal of 100% proficiency by the year 2014 with states setting incremental benchmarks.

**New Jersey Requirements:** To meet the federal requirements, New Jersey has adopted the New Jersey Single Accountability System. State assessments in language arts literacy and mathematics are based on the New Jersey Core Curriculum Content Standards. *All* students enrolled in New Jersey public schools, plus *all* student subgroups, must meet the proficiency benchmarks (see "New Jersey State Benchmarks for Adequate Yearly Progress-Effective November 2008" at the end of document) to ensure the goal of 100% proficiency. Students must score either "proficient" or "advanced proficient" on the assessments to be counted toward meeting the benchmarks. Schools are evaluated using adequate yearly progress (AYP) indicators. In New Jersey, student achievement is determined by grade span (Elementary School – grades 3-5 and Middle School – grades 6-8) and each content area. There are 40 indicators that must be met (including participation and proficiency rates) plus secondary indicators. A safe harbor calculation is applied to measure significant progress if AYP is missed. When a school does not meet AYP, it may be designated as a "school in need of improvement."

To more fully explain how accountability is measured, this document outlines each step and checkpoint factored into calculating AYP for schools. Additionally, the attached table, "Accountability Worksheet," summarizes the accountability steps.

## *Calculating Adequate Yearly Progress*

The following six-part process is applied to each content area—language arts literacy and mathematics for each school. You may access the *2008 AYP Calculator Worksheet* at <http://www.nj.gov/education/title1/accountability/ayp/0809/calc.shtml> to help guide you through this process.

### **Part I. Preliminary Data Checks**

#### **Step 1: 95% Participation**

In concert with the call for inclusion, we must ensure the participation of all students in the state assessments. Therefore, first ask the following questions:

- Did 95% of all students enrolled in the school, as of July 1<sup>st</sup>, for grades 3-8 participate in the assessments, including limited English proficient (LEP) and special education students?
- Did 95% of all students within each student subgroup participate in the assessments? (Subgroups include: racial/ethnic groups, economically disadvantaged, students with disabilities and LEP students.)

If 95% participation was not achieved (answer “no” to either question), then AYP was not made. Participation results are considered for student subgroups of 40 or more. AYP is calculated for Elementary School (grades 3-5) and Middle School (grades 6-8) grade spans. *Student populations for each grade span are aggregated for AYP calculations provided that the grades are housed in the same building.* A minimum of 40 students is required for each aggregated subgroup for participation.

#### **Step 2: Participation Averaging**

- Schools that missed AYP for participation alone are considered for participation averaging. Did 95% of all students on average over three years participate in the assessments?

If the answer is yes, then the school met AYP for participation.

### **Part II. Secondary Measures**

Secondary measures must also be built into the *final* calculation of AYP, which uses cycle 2 data; they are not applied to the cycle 1 preliminary calculations. Standards for these measures must be met by the total school population in order to make AYP. The secondary measure for elementary and middle school is as follows:

- Attendance rate data are applied at the elementary and middle school level only. The ASSA report provides the Average Daily Attendance (ADA) data used for the attendance calculation.

Ask the following questions related to the secondary measure for the elementary and middle school grade spans:

- Did the Average Daily Attendance for the school year reported on the ASSA meet or exceed 90%?

Again, if the answer to either question is “no,” the school did not make AYP.

### **Part III. NCLB Conditions Applied to Test Scores**

#### **Step 1: Statistically Significant**

Student subgroups with fewer than 30 students are not statistically significant, for performance purposes. Therefore, prior to looking at subgroup performance, any group with less than 30 students is suppressed for AYP. Since results for grades 3-5 and 6-8 (within the same school) are aggregated, the subgroup minimum is applied to the aggregated grade span data. This means that if any subgroup includes less than 30 students using the aggregated results for each grade span, then the subgroup is calculated, but not considered for AYP purposes.

Full flexibility is applied for LEP students. LEP student scores for students who have exited English language instructional programs for up to two years are included in the AYP calculations.

Ask these questions:

- Are the results for subgroups with less than 30 students suppressed?
- Are the results for all subgroups with 30 or more students reported?
- Is the LEP student flexibility applied?

#### **Step 2: Student Mobility and Home School**

Because accountability applies to schools and districts and is a measure of their annual performance, the results of students who were *not* enrolled for a full academic year are pulled from the reported score lists. To facilitate this, at the time of test administration student booklets are coded by the district. The test scores from newly enrolled or mobile students are not included when state performance data are analyzed for AYP. A student is considered in school less than a year (TIS<1) if the student has changed his/her residence and changed their school, that is, moved into the district or moved within the district, by July 1.

- TIS<1 does **not** apply if the residence of the student did not change, but the assigned school changed, either due to new school construction, district reconfiguration, or natural progression of grade span.

- TIS<1 applies if the residence of the student did not change, but the assigned school changed due to a charter school, private school, private transfer or school choice option transfer change.

Special education and LEP students are to be counted for accountability purposes in their home school. This applies to those students in out-of-district placement or an in-district program in other than their home school. The home school must be coded on the student’s test booklet.

The following questions should be asked:

- Are all students who enrolled after July 1, and met the TIS criteria noted and are their results pulled from the accountability tally?
- Are special education and LEP students who attend other than their neighborhood school (i.e., out-of-district placement or in-district program) counted in their home school?

**Step 3: 95% Confidence Interval**

A confidence interval (CI) is a statistical method to minimize the risk of aberrations in the actual test results at a specific point in time. To protect against identifying any marginal school as not meeting AYP, a confidence interval at 95% probability is applied to the actual results for the total population as well as each student subgroup for each content area.

To calculate a confidence interval using actual test results for the total and each subgroup, perform the following computations:

1. Calculate the Percent Proficient (p). Add the number of Proficient and Advanced Proficient results and divide by the number of Valid Test Results (N).
2. Calculate CI. The factor for 95% confidence (Z<sub>95</sub>) is 1.96.

The formula is  $1.96 \times \sqrt{\frac{p(1-p)}{N}}$

3. Find the Upper Limit of Confidence = p plus CI.
4. Compare the Upper Limit of Confidence to the Yearly Target.
  - a. If the Upper Limit of Confidence equals or exceeds the Yearly Target, AYP is met.
  - b. If the Upper Limit of Confidence is less than the Yearly Target, AYP is not met.

***Example:***

Valid Test Results	<b>50</b>
Proficient Test Results	<b>20</b>
Advanced Proficient Test Results	<b>5</b>
Yearly Target (ELEMENTARY_LAL)	<b>73%</b>

**Calculation**

1.  $(20 + 5)/50 = 25/50 = .5 = 50\%$
2.  $CI = 1.96 \times \text{Square Root } (.5 \times (1 - .5) / 50)$   
 $= 1.96 \times \text{Square Root } (.25 / 50)$   
 $= 1.96 \times \text{Square Root } .005$   
 $= 1.96 \times .0707$   
 $= .1386$   
 $= 13.86\%$
3.  $50\% + 13.86\% = 63.86\%$
4.  $63.86\% > 73\% = \text{AYP Not Met}$

## Part IV. Review of Test Results

### **Step 1: Test Results for All Students**

- Actual student targets for the total enrollment and all student subgroups must be met. Calculations use aggregated test data; subgroup numbers are based on the aggregated data and compared to the AYP benchmarks. (**Note:** see “New Jersey State Benchmarks for Adequate Yearly Progress-Effective November 2008” at the end of this document.)

IEP exempt for special education students applies to graduation requirements only; it does not apply to AYP calculations.

The key questions to ask when looking at student performance data are as follows:

- Does the “total population” pass rate attain the AYP benchmark?
- Does *each* of the following student subgroups with 30 or more students attain the benchmark? (**Note:** For the racial/ethnicity student subgroup, any combination of Hispanic coding, i.e., Hispanic and White, students are counted in the Hispanic category only.)
  - White students
  - African-American students
  - Hispanic students
  - Asian/Pacific Islander students
  - Native American/Indian students
  - Other racial group students
  - Economically disadvantaged students
  - Students with disabilities
  - Limited English proficient students

If the answer to the first question is “no,” and/or the answer to any student subgroup is “no,” then for the total population and for each subgroup with a “no” response, a safe harbor calculation must be made in order to determine if the school made enough progress to make AYP. To make AYP, the *total population and all student subgroups must meet the benchmark or safe harbor.*

## Part V. Safe Harbor Proficiency Calculations

## *Calculating Safe Harbor*

For the total population and for each student subgroup that does not attain the state benchmark, then a safe harbor determination is made. To make safe harbor, there are two tests:

1. Proficiency for total population and subgroups
2. Secondary measures

The calculation of safe harbor is essentially a measure of improvement applied to the total population and each subgroup that has *not* made the AYP benchmark(s). If the percent **partially proficient** achieved in the previous year is decreased by 10% in the current year, safe harbor is achieved and the total and/or subgroup(s) are deemed to have made AYP. For current year results, a confidence interval at 75% probability is applied. Safe harbor is determined using aggregated data for grade spans.

Because New Jersey implemented a new testing program in 2008, the safe harbor calculation for elementary and middle schools this year, is not straightforward. If the data from 2007 and the data from 2008 were used for the safe harbor calculation, the change in number of students considered to be at least Proficient would be based on two different definitions of “Proficient.” .

To calculate safe harbor test results must first be adjusted by grade and subject area. Each grade is adjusted individually. **These adjustments are applied to grades 5, 6, 7, and 8 only.** The adjustment will need to be done for this year only. After adjusting the scaled scores using the new scales provided below, by each grade and subject area, recalculate the number of partially proficient results.

### **Cut Scores for 2008 for Safe Harbor**

<b>Grade</b>	<b>Language</b>	<b>Math</b>
<b>5</b>	161	203
<b>6</b>	190	205
<b>7</b>	190	181
<b>8</b>	188	175

For example, previously we used a scaled score of 100 to 199 to count a grade 5 student as partially proficient in language arts literacy. For the current year, use a scaled score of 100 to 160 to count a grade 5 student as partially proficient in language arts literacy (see above chart). In another example, previously we used a scaled score of 100 to 199 to count a grade 5 student as partially proficient in math. For the current year, use a scaled score of 100 to 202 to count a grade 5 student as partially proficient in math.

For all grades other than 5 to 8, a scaled score of 100 to 199 will continue to be used for calculating safe harbor

Once the 2008 scaled scores have been adjusted, perform the following computations for the total population and each subgroup that did not make AYP:

1. To compute the previous year's Percent Partially Proficient, divide the previous year's number of Partially Proficient Test Results (q) by the previous year's total number of Valid Tests (N).
2. Multiply the previous year's Percent Partially Proficient times 90% to arrive at the current year's Partially Proficient Target.
3. Subtract the current year's Partially Proficient Target from 100% to compute the current year's Proficiency Target.
4. To compute the current year's Percent Proficient (p), add the number of current year's Advanced Proficient Test Results and the number of Proficient Test Results and divide by the current year's total number of Valid Tests.
5. Calculate CI. The factor for 75% confidence ( $Z_{75}$ ) is 1.15.

The formula is  $1.15 \times \sqrt{\frac{p(1-p)}{N}}$

6. Find the Upper Limit of Confidence = p plus CI.
7. Compare the Upper Limit of Confidence to the current year's Proficiency Target.
  - a. If the Upper Limit of Confidence equals or is greater than the Proficiency Target, safe harbor is achieved.
  - b. If the Upper Limit of Confidence is less than the Proficiency Target, safe harbor is not achieved.

***Example:***

Previous Year's Number of Valid Test Results	<b>50</b>
Previous Year's Number of Advanced Proficient Test Results	<b>0</b>
Previous Year's Number of Proficient Test Results	<b>15</b>
Previous Year's Number of Partially Proficient Test Results	<b>35</b>
Current Year's Valid Test Results	<b>60</b>
Current Year's Number of Advanced Proficient Test Results	<b>5</b>
Current Year's Number of Proficient Test Results	<b>15</b>
Current Year's Number of Partially Proficient Test Results	<b>40</b>

Calculation

1.  $35/50 = .7 = 70\%$
2.  $70\% \times 90\% = 63\%$
3.  $100\% - 63\% = 37\%$
4.  $(5 + 15) / 60$   
 $= 20 / 60$   
 $= .3333$   
 $= 33.33\%$
5.  $CI = 1.15 \times \text{Square Root } (.3333\% \times (1 - .3333) / 60)$   
 $= 1.15 \times \text{Square Root } (.2222 / 60)$   
 $= 1.15 \times \text{Square Root } .0037$   
 $= 1.15 \times .0608$   
 $= .0699$

- = 6.99%
6.  $33.33\% + 6.99\% = 40.32\%$
  7.  $40.32\% > 37\% = \text{Safe Harbor Achieved}$

The total population and *all* subgroups must attain either the benchmark or safe harbor for the school to make AYP. For final AYP calculations, a final check is made using secondary measures.

The key questions to ask are the following:

- Does each subgroup not attaining the benchmark meet proficiency using safe harbor criteria—that is, reducing last year’s “partially proficient rate” by at least 10%?
- Does the total population meet proficiency using these standards?

If the answer is “yes” for the *total* population and for *all* subgroups for which the safe harbor proficiency standard was calculated, the secondary measures must now be applied for final AYP calculations.

If the answer is “no” for the total population or *any* subgroup not meeting the benchmark or the safe harbor proficiency standard, then the school did not make AYP.

**Part VI. Secondary Measures for Safe Harbor**

For the *total* population and for *all* subgroups that have met the safe harbor proficiency standard, the secondary measures must be applied for final AYP determination. The key question to ask is as follows:

- For grades 3-8, does each subgroup meeting the safe harbor proficiency standard also have an average daily attendance rate of 90% or better?

If the answer is “yes,” the group attained the secondary measure indicator and made safe harbor.

**Final Question**

- Has the total population and each student subgroup that did not meet the benchmarks meet the proficiency standards for safe harbor (and the secondary measure indicators if calculating final AYP)?

If the answer is “yes,” then the school has made AYP for this content area.

**Note:** The six steps must be followed for each content area.



**New Jersey State Benchmarks for Adequate Yearly Progress  
Effective November 2008**

<b>Content Area</b>	<b>Grade Span</b>	<b>Starting Point 2003</b>	<b>2005-2007</b>	<b>2008-2010</b>	<b>2011-2013</b>	<b>2014</b>
<b>Language Arts Literacy</b>	Elementary (Grades 3-5)	68	75	73	86	100
	Middle School (Grades 6-8)	58	66	72	86	100
	High School (Grade 11)	73	79	85	92	100
<b>Mathematics</b>	Elementary (Grades 3-5)	53	62	69	84	100
	Middle School (Grades 6-8)	39	49	61	80	100
	High School (Grade 11)	55	64	74	86	100

**ACCOUNTABILITY WORKSHEET FOR 2008 STATE ASSESSMENTS**

Check one:    **Mathematics**                           **Language Arts Literacy**     

<b>CRITERIA</b>		<b>YES</b>	<b>NO</b>			
Were 95% of all enrolled students tested?				If no, the school did not make AYP. (May apply participation averaging if all subgroups meet the proficiency target.)		
<i>Secondary measure:</i> • Did the school meet attendance standards? (K-8)				If no, the school did not make AYP.		
Were all new (mobile) student results pulled out of the calculations?				If no, adjustments must be made during the record change period.		
Were sending students (SPED and/or LEP) added to home school?				If no, adjustments must be made during the record change period.		
<b><u>Test Results</u></b> • Add 95% CI to all pass rates • Pull out from review any subgroup w/less than 30 students						
Did the following groups meet the benchmarks?		<b>Yes</b>	<b>No</b>	If no, for any group or the total population:          →	Did they meet Safe Harbor proficiency standards using a 75% CI?	
					<b>Yes</b>	<b>No</b>
<ul style="list-style-type: none"> <li>• Total Students</li> </ul>						
<ul style="list-style-type: none"> <li>• White</li> <li>• African-American</li> <li>• Hispanic</li> <li>• Asian/Pacific Islander</li> <li>• Native American/Indian</li> <li>• Other</li> </ul> <div style="margin-left: 200px;">} <i>Race/ethnicity</i></div>						
<ul style="list-style-type: none"> <li>• LEP (English &amp; Spanish tests)</li> <li>• Special Education (regular administration &amp; APA)</li> <li>• Economically Disadvantaged (free &amp; reduced- price lunch)</li> </ul> <div style="margin-left: 200px;">} <i>Student groups</i></div>						

Did the following group meet the secondary measures?	Yes	No	<p style="text-align: center;"><b>If yes is entered for each checkpoint, the school made AYP.</b></p> <p style="text-align: center;"><b>Repeat for next content area.</b></p>
<ul style="list-style-type: none"> <li>• Total Students</li> </ul>			
<ul style="list-style-type: none"> <li>• White</li> <li>• African-American</li> <li>• Hispanic</li> <li>• Asian/Pacific Islander</li> <li>• Native American/Indian</li> <li>• Other</li> </ul> <div style="display: flex; align-items: center; margin-left: 150px;"> <span style="font-size: 2em; margin-right: 10px;">}</span> <span><i>Race/ethnicity</i></span> </div>			
<ul style="list-style-type: none"> <li>• LEP (English &amp; Spanish tests)</li> <li>• Special Education (regular administration &amp; APA)</li> <li>• Economically Disadvantaged (free &amp; reduced- price lunch)</li> </ul> <div style="display: flex; align-items: center; margin-left: 150px;"> <span style="font-size: 2em; margin-right: 10px;">}</span> <span><i>Student groups</i></span> </div>			

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