

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

**Understanding Accountability in New Jersey for 2009 State Assessments  
For High Schools and Middle 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 to ensure the goal of 100% proficiency. (The "New Jersey State Benchmarks for Adequate Yearly Progress" are located at the end of this document) 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, Middle School – grades 6-8, and High School) and in each content area. There are 40 indicators that must be met (including participation and proficiency rates) plus a secondary indicator. A safe harbor calculation is applied to measure significant progress if the benchmark is missed. When a school does not meet AYP for two consecutive years in the same content area, it is 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. 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 *AYP Calculator Worksheet* at <http://www.nj.gov/education/title1/accountability/ayp/0910/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. Participation results are considered for student subgroups of 40 or more. Therefore, first ask the following questions:

- Did 95% of all students enrolled in the school, as of July 1<sup>st</sup>, in high schools, or grades 6-8 participate in the assessment, including limited English proficient (LEP) and special education students?
- Did 95% of all students within each student subgroup participate in the assessment? (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.

#### **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 high schools is follows:

- Graduation rate/dropout data: NCLB requires states to review graduation rate data that are calculated by determining the proportion of students graduating after four-year enrollment in the high school. This requires a student-level tracking system. For this year, the dropout rate data will be used.

Ask the following question related to the secondary measure for high schools:

- Was the school's dropout rate less than 2.6% or was it 0.5% less than the previous year?

The secondary measure for 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 middle school grade span:

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

If the answer 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 in the calculations. Any group with more than 30 students is considered for AYP.

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 eliminated from the reported score lists. Codes on the student booklets are used for this purpose. 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 or intra district choice option.
- 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 inter-district school choice option.

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 and are their results eliminated 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?

**For High School grade span only:**

**Step 3: High School Banking**

High school students may participate in three administrations of the grade 11 state assessments (HSPA) to score proficient. The first administration is in the spring of grade 11. Students who do not score proficient in either/both content areas may retake the test in the fall of the following year. Students who still do not achieve proficient scores may retake the test again in the spring of the following year.

High School banking is as follows:

- Initial test administration: Spring of the 11<sup>th</sup> grade
- 2nd test administration: Fall
- 3rd test administration: Spring

After the initial administration of the test, the eligible student population will be determined (based on student IDs) and segregated into four groups (two groups per content area – Language Arts Literacy and Math):

- 1<sup>st</sup> - Students who scored Advanced Proficient and Proficient
- 2<sup>nd</sup> - Students who scored Partially Proficient or who did not participate (NP)

Students in the first group are banked as having completed testing.

Students in the second group are given a chance to retest in the fall. Those scoring Advanced Proficient or Proficient are moved from the second group to the first group and banked.

Students scoring Partially Proficient or who did not participate in the initial or 2<sup>nd</sup> test administration are given an additional opportunity to test in the spring.

Once the results of the spring test are determined, AYP analysis is performed for the entire eligible student population.

All scores from the three administrations for each cohort are used for the AYP calculation for the school.

The Participation Rate for each content area is determined by dividing the number of students who tested by the entire eligible student population.

The Performance Rate for each content area is determined by dividing the count of students scoring Advanced Proficient/Proficient after all three administrations of the test by the count of the entire eligible student population with valid test scores.

Following is an example of the High School Banking:

**Class of 2009**

<b>Test Administration</b>	<b>Grade Tested</b>	<b>% of Students Tested</b>	<b>Date Tested</b>	<b>% Scoring Proficient</b>
First	11	100%	Spring 2008	50%
Second	12	50%	Fall 2008	25%
Third	12	25%	Spring 2009	5%
<b>Total Proficient</b>				<b>80%</b>

Using the example above, 80% of the students are proficient; 20% are not proficient. These numbers are used to calculate the school's AYP.

Confidence intervals are applied and the results are compared to the targets for each content area.

**Step 4: 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 ( $Z_{95}$ ) 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 (GR 11 – Math)	<b>74%</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.  $63.86\% > 74\% = \text{AYP **Not Met**}$

**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.

To calculate safe harbor, 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

- $35/50 = .7 = 70\%$
- $70\% \times 90\% = 63\%$
- $100\% - 63\% = 37\%$
- $(5 + 15) / 60$   
 $= 20 / 60$   
 $= .3333$   
 $= 33.33\%$
- $CI = 1.15 \times \text{Square Root} (.3333\% \times (1 - .3333) / 60)$   
 $= 1.15 \times \text{Square Root} (.2222 / 60)$   
 $= 1.15 \times \text{Square Root} .0037$   
 $= 1.15 \times .0608$   
 $= .0699$   
 $= 6.99\%$
- $33.33\% + 6.99\% = 40.32\%$
- $40.32\% > 37\% = \text{Safe Harbor Achieved}$

The total population and *all* subgroups must attain either the benchmark or safe harbor for the school to make AYP.

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 high schools, does each subgroup meeting the safe harbor proficiency standard also have a dropout rate of 2.6% or less?
- For grades 6-8, 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.

If the answer is “no,” then did the dropout rate for the group decrease by .5% over the previous year?

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

\* May change

## ACCOUNTABILITY WORKSHEET FOR HIGH SCHOOLS STATE ASSESSMENTS

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




CRITERIA			YES	NO	
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 measures:</i>					
<ul style="list-style-type: none"> <li>• Did the high school meet dropout standards? (9-12)</li> </ul>					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.
<u><b>Test Results</b></u> <ul style="list-style-type: none"> <li>• Add 95% CI to all pass rates</li> <li>• Pull out from review any subgroup w/less than 30 students</li> <li>• High School Banking Applied</li> </ul>					
Did the following groups meet the benchmarks?		Yes	No	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>				<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 100px; height: 100px; background-color: #cccccc; margin-right: 10px;"></div> <div style="font-size: 2em;">→</div> </div>	
<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: 20px;"> <div style="font-size: 3em; margin-right: 5px;">}</div> <div style="font-style: italic;">Race/ethnicity</div> </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: 20px;"> <div style="font-size: 3em; margin-right: 5px;">}</div> <div style="font-style: italic;">Student groups</div> </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>			

**ACCOUNTABILITY WORKSHEET FOR MIDDLE SCHOOL STATE ASSESSMENTS**

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

CRITERIA			YES	NO		
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>Test Results</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?	
• Total Students					<b>Yes</b>	<b>No</b>
<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: inline-block; vertical-align: middle; margin-left: 10px;"> <span style="font-size: 2em;">}</span> <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>	 <i>Student groups</i>					
<b>Did the following group meet the secondary measures?</b>		<b>Yes</b>	<b>No</b>	<p><b>If yes is entered for each checkpoint, the school made AYP.</b></p> <p><b>Repeat for next content area.</b></p>		
• Total Students						
<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>	 <i>Race/ethnicity</i>					
<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>	 <i>Student groups</i>					

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