

Determining Adequate Yearly Progress (AYP) 2006-07

(August 23, 2007)

Introduction

AYP is defined as a series of performance targets that states, school districts, and schools must achieve each year to meet the requirements of No Child Left Behind (NCLB). In each public school and LEA in North Carolina, the ten student subgroups are defined as:

1. School as a whole (all students)
2. American Indian
3. Asian
4. Black
5. Hispanic
6. Multi-racial
7. White
8. Economically Disadvantaged (Free and Reduced Lunch)
Determined by November 1, April 1 and First Day of Spring (FDS) data collections
9. Limited English Proficient (LEP)
Determined after annual IPT testing
10. Students with Disabilities (SWD)
Determined by First Day of Spring (FDS) EC data file from SIMS/NCWISE

In order for elementary and middle schools (including grades in the 3 to 8 grade range) to make AYP, each student subgroup in tested grades must meet the following targets:

1. 95% participation rate in reading/language arts assessment
2. 95% participation rate in mathematics assessment
3. Meet or exceed the state's annual measurable objective (AMO) for proficiency in reading/language arts
4. Meet or exceed the state's annual measurable objective (AMO) for proficiency in mathematics
5. The school as a whole must show progress on the other academic indicator (OAI): attendance for schools in grades 3 to 8.

In order for a high school (grade range 9 to 12), to make AYP, each student subgroup must meet the following target:

1. 95% 10th grade participation rate on the English I and Writing assessment or it's alternate. For purposes of determining the 95% tested rule in reading, use the English I and Writing or it's alternate test from the spring administration for these students. Divide by the number of 10th graders on First Day of Spring (FDS).
2. 95% 10th grade participation rate on the Algebra I assessment or it's alternate..
3. Meet or exceed the State's annual measurable objective (AMO) for 10th grade proficiency on English I and Writing assessment or it's alternate.
4. Meet or exceed the State's annual measurable objective (AMO) for 10th grade proficiency on the Algebra I assessment or it's alternate.
5. The school as a whole must show progress on the other academic indicator (OAI), graduation rate, unless the high school does not graduate seniors, then it would then be attendance.

Note: For a public school or LEA to make adequate yearly progress, each student subgroup must meet or exceed the State's annual measurable objectives, each student subgroup must have at least a 95% participation rate (North Carolina will average participation rates for the last two or three years,

depending on how many years of data are available, whenever a school does not meet the 95% standard for the current year) in the statewide assessments, and the school must meet the State's requirement for graduation rate or attendance

For 2006-07 test takers, the following scores will be used for 2006-07 AYP proficiency calculations.

Algebra I - 143

English I - 142

NCLB Required 95% Participation

The 95% rule will apply whenever the number of students in membership in a group is at least 40.

Schools in First Year of Operation

Schools in the first year of operation will not have an AYP status. The first year's performance scores will establish the school's baseline.

Other Academic Indicators (OAI)

If a school contains a combination of elementary/middle and high school grade ranges, all available targets will be used for determining AYP status. Beginning 2006-07, the threshold for graduation rate will be 80% and attendance will continue to have a threshold of 90%. Progress on the OAI is defined as at least 0.1 percentage point increase from one year to the next, up to the threshold. Any fluctuation above the threshold will meet the requirement for progress. If a school graduates seniors then graduation rate takes precedence over attendance. For LEAs, all available targets are utilized; the OAI is graduation rate and attendance.

Subgroup Size

A subgroup must have at least 40 students, with the exception of the school as a whole if there are no subgroups; where up to as few as 5 students will be utilized for OAI and 3 students for proficiency targets. For proficiency and attendance targets, only students in membership a full academic year (FAY) are considered. FAY is defined as 140 days in membership as of the first day of End-of-Grade (EOG) testing or Spring EOC.

Annual Measurable Objectives (AMO's)

In grades 3 through 8, for the 2004-05 through the 2006-07 school years, the AMO targets are:

- **76.7% proficiency in reading/language arts, and**
- **65.8% in mathematics.**

For grade 10, the AMOs were recalculated during the 2004-05 school year to reflect the inclusion of Algebra I, English I, and the Grade 10 Writing Assessment in the AYP computations. The new starting points for Grade 10, for 2006-07 are:

- **35.4% in reading/language arts, and**
- **70.8% in mathematics.**

Note: Calculations carry full precision (see page 21 of the Accountability Workbook) until final rounding.

These calculations include only those students in membership on the first day of spring testing who are both tested and have met the full academic year requirement. It is normal to see fewer students included in the AMO calculations than in the participation calculations.

The SBE established in January 2003 that intermediate goals shall change in three-year increments. The first incremental increase took effect in 2004-05; the second incremental increase took effect in 2007-08; the third will take effect in 2010-11 and the last in 2013-14.

Starting Points and Intermediate Goals							
Originally Set January 30, 2003							
Year	Grades 3-8 (%)			Grade 10 (%)			
	Reading	Mathematics	Modified October 12, 2006	Reading	Mathematics	Modified January 5, 2005	
Starting Points (2001-02)	68.9	74.6			52.0	54.9	
2002-03	68.9	74.6	52.0		54.9		
2003-04	68.9	74.6	52.0		54.9	Reading/ Language Arts	Mathematics
2004-05	76.7	81.0	Mathematics	—	—	35.4	70.8
2005-06	76.7	—	65.8	—	—	35.4	70.8
2006-07	76.7	---	65.8	---	---	35.4	70.8
2007-08	84.4	---	77.2	---	---	56.9	80.5
2008-09	84.4	—	77.2	—	—	56.9	80.5
2009-10	84.4	—	77.2	—	—	56.9	80.5
2010-11	92.2	—	88.6	—	—	78.4	90.2
2011-12	92.2	—	88.6	—	—	78.4	90.2
2012-13	92.2	—	88.6	—	—	78.4	90.2
2013-14	100	—	100	—	—	100	100

Safe Harbor Provision

Safe Harbor is the first provisional status calculation applied. If a subgroup meets the 95% participation rate but does **not** meet the proficiency target, that subgroup can meet its proficiency target with a safe harbor provision, providing that:

- the subgroup has reduced the percent of students not proficient by 10% from the preceding year for the subject area; and
- the subgroup shows progress on the OAI.

Safe harbor data will be provided by DPI. This data includes the previous years' proficiency results by subgroup, with all the AYP decision rules appropriately applied, i.e., 140 days in membership

and 40 students in a subgroup. However, if in any particular year the student subgroup does not meet those annual measurable objectives, the public school or LEA may be considered to have made AYP, if the percentage of students in that group who did not meet or exceed the proficient level of academic achievement on the State assessments for that year decreased by 10% of that percentage from the preceding public school year; that group made progress on one or more of the State's academic indicators; and that group had at least 95% participation rate on the statewide assessment. If a subgroup does not have the minimum numbers of students or scores required in the previous year, then that subgroup's performance is determined using the current year's data, without using the safe harbor provision of NCLB. Safe harbor, based on federal guidance, is not a right.

Confidence Interval (Agresti-Coull method)

A confidence interval helps factor in the idea that test data reveals "fairly certain" results as opposed to "absolutely certain" results. The more students taking the test in a particular group, the more confident we can be that the true results lie fairly close to the results obtained. Students' test results are only an estimate of a student group or school's true proficiency. For each student group, a 95 percent confidence interval is used around the percentages of students scoring proficient in reading and/or mathematics to determine whether target goals for AYP are met. This analysis is independent of the safe harbor calculations and cannot be combined with safe harbor for any one subgroup.

Targeted Assistance Schools (TAS)

LEAs are given three options for determining Adequate Yearly Progress (AYP) for targeted assistance schools (TAS). AYP can be determined using (1) all students in the school, (2) using students actually served in the TAS program, or (3) students eligible to be served in the TAS program. NCDPI will initially analyze AYP results for TAS using all students in the school. If the a subgroup in the TAS does not meet AYP, then NCDPI will analyze the results for served students, if the subgroup in the TAS again does not meet AYP, then NCDPI will analyze the results for eligible students. These additional analyses are contingent upon the LEA "tagging" the appropriate students.

Trajectory Growth (a Pilot)

After attempting to use safe harbor and then attempting Confidence Interval and TAS options (if applicable), the results for trajectory growth will be compared to the AMO. The number of students who are on trajectory to be proficient within the allotted time will be added to the number of proficient students and used as the numerator for the proficiency calculation. It is important to note that this does not include, nor can it be combined for a single subgroup with either safe harbor or the confidence interval.

Operational Procedures

The Division of Accountability Services provides software for LEAs to calculate and check their AYP results. The results for schools will be released statewide by LEAs in late-August 2007. These reports will include the numbers and percentages of AYP targets met by their schools. These results will be confirmed in September 2007 by the State Board of Education (SBE.),

Considerations for AYP Calculations 1. For schools with fewer than 40 students in the tested grades in the entire school in the current year, whatever data are available will be used to calculate AYP. The report will note "results based on less than 40 students, and should be interpreted with

caution.”

2. For low population schools with a mix of grades elementary/middle and high school, rules are applied so that if one of the grade-ranges (elementary/middle or high school) has a lower population than the other, only the part with higher population will be taken into consideration for determining AYP. To determine which part to keep, add the number of students with FAY in math and reading and choose the targets for the grade-range with the highest sum.
3. For each AMO and OAI target, full precision is carried throughout intermediate calculations; the final result is rounded to the nearest tenth and status is based on the rounded result. For percent tested targets, the final result is rounded to the nearest whole number.
4. In K-2 schools, special education schools, hospital schools, and vocational and career centers, a school specific feeder pattern will be used to determine AYP.
5. For K-2, the elementary school that receives the largest percent of students from the K-2 school is used to determine AYP status.
6. For the special education schools, vocational \ career schools, and hospital schools, at least half the feeding schools must make AYP for the receiving school to be designated as having made AYP.

As required by the USED as part of the trajectory growth pilot, the percent of all students in any subgroup in any school in the state that achieve their individual growth target (for proficient students this is the ABCs growth target, for non-proficient it is the trajectory growth target) will be reported with the AYP results for the school.

AYP proficiency statistics are reported for the LEA and the State, in addition to the school. With AYP calculations, proficiency data for the LEAs are based on different data than the proficiency statistics for the schools. You cannot, therefore, combine the school-based AYP proficiency statistics (e.g. by using a weighted average) in order to compute the AYP proficiency statistics for the LEA.

For example, there is a federal requirement to count students who have been in the LEA for at least 140 days (full academic year), even though they may not have been in a single school within that LEA for 140 days. This means some students would be counted for AYP proficiency at the LEA level but not at the school level.

Changes to AYP rules implemented in 2005-06

New Growth Model, 2005-06

Using the processes already in place, North Carolina applied a modified form of its ABCs growth model, to add an additional layer to decrease the likelihood of falsely identifying schools as being in need of improvement that are providing quality education for their students. This approach is useful for measuring the growth in student performance from one year to the next and also adapts well to the changes in curriculum and subsequent changes in test editions. These modifications were approved by the State Board of Education at its meeting on February 2, 2006.

After all other statistical methods and safe harbor have been applied to a school's proficiency targets; a four year growth trajectory will be calculated for all non-proficient students. This growth trajectory, should the student meet the trajectory's intermediate targets, would lead a student to performing "proficient" within four years in the tested grades. These targets are set based on initial status derived from the first test in the student record and project out to the grade-level test three school years after entering the first tested grade. Students who are on their trajectory in the current year would then be added to the proficient students for purposes of calculating proficiency against the Annual Measurable Objectives (AMO).

Complete New Growth Proposal located at:

<http://www.ncpublicschools.org/docs/accountability/reporting/abc/2005-06/ncaypgrowthproposal041606.pdf>

Changes to AYP rules implemented in 2003-04

The State Board of Education (SBE) and the U.S. Department of Education (USED) approved changes in the process for determining AYP for the 2003-04 accountability year that included: 1.

The addition of a new ABCs recognition category, *Honor Schools of Excellence*, to denote schools that made expected or high growth and met AYP.

2. Allowing a process for medical exclusions from testing for students with serious medical conditions.
3. Averaging participation rates for the last two or three years, depending on how many years of data were available, whenever a school did not meet the 95% participation standard for the current year.
4. Special analysis of AYP for targeted assistance schools (TAS). The first analysis used all students in the school. If the TAS did not meet AYP, then the results for Title I served students were analyzed; if AYP was still not met, then the results for students eligible for Title I were analyzed. (These additional analyses were contingent upon the LEA “tagging” the appropriate students for the analyses.) Unless the TAS met the minimum number of 40 students being served or eligible to be served then the results were based on all students in the school. If the school provided services in only one subject area, then the LEA determined if the results for AYP for each subject were based on only the served students, only the eligible students or all of the students in the school. The OAI could be calculated on any of the options unless safe harbor needed to be invoked. In that case, the same criterion was used for comparison purposes (only those served or only those eligible). If this was not possible, then the OAI was based on all students in the school. Results from all students in the TAS are to be used for making AYP decisions at the LEA and State levels. For schools without tested grades, AYP could be determined by back-mapping or forward-mapping students.
5. Applying a 95% confidence interval to the percentages of students scoring proficient in reading and/or mathematics to determine if subgroups met the AMO.
6. Requiring a Title I school not making AYP to miss targets in the same subject (e.g., reading) for two successive years before entering Title I School Improvement.
7. Placing a 1.0 percent cap on the percentage of students held to alternate achievement standards and deemed proficient (through the NCAAP, and NCAAAI administered at least three years or more below students’ assigned grade levels) at the district and State levels.
8. Not requiring LEP students (who score below Intermediate High on the reading section of the language proficiency test) in their first year in U.S. schools to be assessed on the reading End-of-Grade tests, High School Comprehensive Test in Reading, or the NC Alternate Assessment Academic Inventory (NCAAAI) for reading. (Schools were to use the language proficiency test for determining the 9.95% participation; mathematics results were not used in determining AYP or ABCs performance composite scores for LEP students who scored below Intermediate High.) Students previously identified as LEP who exited LEP identification during the last two years were included in the AYP calculations only if the subgroup already met the minimum number of 40 students.
10. Setting the minimum N count used in determining the AYP status of LEAs at 40 or 1% of the tested students, whichever is greater. (Operationally, the LEA is treated as a school, for the grades 3 to 8 targets, the minimum N is the maximum of 1% of tested students in grades 3 to 8 and 10. For the high school targets, the minimum N is the maximum of 1% of the tested 10th grade students and 40.)

11. Providing that an LEA could enter Improvement Status only if the LEA did not make AYP in the same subject area in both the 3-8 and high school grade spans for two consecutive years.
12. Allowing site visits by a School Improvement team to make AYP designations for schools with two (2) or fewer students meeting the FAY requirements.

Changes implemented in 2004-05

The State Board of Education and the U.S. Department of Education approved changes in the process for determining AYP for the 2004-05 accountability year that included:

1. Using Algebra I and a combination of English I and the Grade 10 Writing Assessment to determine proficiency for AYP in mathematics and language arts at grade 10. New starting points for Grade 10 are:
 - a. **35.4%** proficiency in reading/language arts
 - b. **70.8%** in mathematics.
2. Providing that an LEA could enter Improvement Status only if the LEA did not make AYP in the same subject area in each of three grade spans: elementary, middle, and high school, for two consecutive years.
3. Allowing the LEA two weeks to appeal its LEA Improvement Status and authorizing the State Superintendent to make a final determination for the LEA.

Changes implemented in 2005-06

There is a 2.0 percent cap on the number of students that can be deemed proficient when taking NCEXTEND2, and this calculation is separate from the cap for students with the most significant cognitive disabilities. The significant change is that students with “persistent academic disabilities” can be deemed proficient using alternate assessments.

Changes implemented in 2006-07

1. Algebra I and English I (Equated scores) – The SBE approved new achievement level standards for the new Algebra I and English I End-of-course (EOC) assessments administered during the 2006-07 school year. In order to combine the results from 10th graders taking new EOC assessments, the North Carolina Department of Public Instruction (NCDPI) will equate the new assessment scores to the old scale using an equi-percentile method and continue to use the current annual measurable objectives (AMOs) for this year’s reporting of AYP at the high school level.
2. Cohort Graduation Rate – On February 28, 2007, the SBE will be reviewing the first report of a 4-year cohort graduation rate for NC’s schools. This summer will be the first time that the 4-year cohort graduation rate will be used to determine if a subgroup can access safe harbor at the high school level. The SBE may want to adjust the current threshold of 80% used as part of meeting the former graduation rate target. The SBE will be able to start the conversation once they have the data to review.
3. Definition of a New School – The Title I office in NCDPI was informed that the Accountability Workbook should include a definition of what constitutes a new school. This issue will need to be addressed by the SBE.
4. Confidence Interval and AYP Growth – After implementation of the new AYP growth model in 2005-06 school year, it is apparent that an adjustment needs to be made because not even

one school in the state met AYP based on the model. The SBE may want to propose that a 68% confidence interval be applied to the percentages of students scoring proficient (after including scores of students on track to proficiency as proficient). We should have an estimate of the impact of this effort within the next week.

Changes implemented in 2007-08

1. Algebra I and English I (reset AMOs) – The SBE may want to revise the AMOs at the high school level to reflect the impact of the higher achievement level standards (as was done for the 2005-06 school year when the new mathematics assessments were implemented). Analyses will need to be conducted after the conclusion of the 2006-07 school year to set the revised AMOs.
2. Cohort Graduation Rate – The SBE may want to make changes to the 4-year cohort graduation rate calculations to accommodate certain students with disabilities or certain limited English proficient (LEP) students who should be on a 5-year program to graduate. The SBE will need to put procedures in place to ensure that there are proper safeguards in place for assigning students to a 5-year program for graduation.
3. **Alignment with the Student Accountability Standards Policy (Use of the standard error of measurement (SEM) and retest results for determining adequate yearly progress (AYP)** – The Student Accountability Standards policy of the SBE requires students who do not score at or above Achievement Level III on the state end-of-grade assessments at grades 3, 5 & 8 to be retested up to two times to meet the standard as part of the decision-making process for promotion decisions. The procedures guide also allows students to meet the standard using one SEM to acknowledge measurement error and decrease the numbers of students that would have to be retested as part of the policy. The state is contemplating a way to include the results from the implementation of this policy in grades 3, 5 & 8 in its calculations of the ABCs performance composite and requests that it is allowed in the calculations for AYP determinations as well. In order to safeguard timely reporting of AYP at the local level prior to the beginning of the next school year, only retest results in grades 3, 5, & 8 that are submitted to the NCDPI by the established deadline (currently June 30) will be accommodated. We are unable to provide an estimate of the possible impact of this change because new mathematics assessments were administered in assessments and the establishment of new achievement of new achievement levels. Therefore, no retesting data are available for the new mathematics assessments from last school year.
4. **Alignment with the High School Exit Standards Policy (Use of the standard error of measurement [SEM] and retest results for determining adequate yearly progress [AYP]** - The High School Exit Standards policy of the SBE applies to the incoming ninth graders in the 2006-07 school year. It involves (besides successfully completing a graduation project) testing on five EOC assessments with similar procedures in place to the Student Accountability Standards policy in grades 3, 5, & 8. Two of the EOCs (Algebra I and English I) are used for making AYP decisions at the high school level. The state is contemplating a way to include the results from the implementation of this policy in its calculations for AYP determination as well.
5. Science Testing at the High School Level – The USED already approved the use of the Biology EOC assessment as the high school science component under No Child Left Behind (NCLB) using results from all 10th graders (including banked scores from students who took the assessments in earlier grades). However, due to several high schools with different science course-taking sequences, and in an effort to ensure that more students are included in the high school science course-taking sequences, and in an effort to ensure that more students are included in the high school science reporting, results will be computed at the 11th grade level, as opposed to the currently approved plan of 10th grade.

6. Innovative Schools – The SBE may discuss the issue of substituting different NCLB assessment requirements for certain innovative schools (New School Project, Learn and Earn Schools as example) that offer alternatives to the current assessments that better align with the objectives of the innovative schools.