

Determining Annual Measureable Objectives (AMOs) 2011-12

August 2, 2012

Introduction

On May 31, 2012, the United States Department of Education (USED) approved North Carolina's flexibility waiver request from some of the requirements of No Child Left Behind as specified in the Elementary and Secondary Education Act (ESEA). In lieu of the reauthorization of ESEA by the U.S. Congress, the waiver will remain in effect for the next two school years, 2012-13 and 2013-14. If by 2014-15 ESEA is not reauthorized, the USED will re-evaluate the flexibility waiver.

The immediate changes to federal accountability reporting that will be effective with the 2011-12 and the 2012-13 school years include the following:

1. The NCDPI will no longer designate each school as having met or not met Adequate Yearly Progress (AYP). For each school, the NCDPI will report the number of Annual Measureable Objectives (AMOs) and the number of those targets met as well as the percentage of targets met.
2. The ESEA waiver specified AMO targets will be used for reporting. These targets are (1) based on 2010-11 data and (2) identified for each federally reported subgroup for reading and for mathematics. Per the flexibility waiver, the AMO targets were set with the goal of reducing the percentage of non-proficient students by one-half within six years. The targets are available at <http://www.ncpublicschools.org/accountability/reporting/abc/2011-12/>.
3. To meet the criteria for an Honor School of Excellence per the ABCs of Public Education, a school will have to meet all of its AMO targets. Meeting all of the AMO targets replaces the previous requirement of having met AYP. Meeting expected growth and having a performance composite of 90 percent of higher continue to be required for the Honor School of Excellence designation.
4. The Cohort Graduation Rate (CGR) for 4-year and 5-year will be reported by subgroups.

This document describes the general approach for determining new AMO targets this year. It must be read with the above modifications in mind.

Definition of AMOs

Annual Measureable Objectives (AMOs) is defined as a series of performance targets that states, school districts, and specific subgroups within their schools must achieve each year to meet the requirements of No Child Left Behind (NCLB). In each public school and Local Education Agency (LEA) in North Carolina, the ten student subgroups are:

1. School as a whole (all students);
2. American Indian;
3. Asian;
4. Black;
5. Hispanic;
6. Two or More Races;
7. White;
8. Economically Disadvantaged Students (Based on Child Nutrition data files submitted in accordance with a Memorandum of Agreement);
9. Limited English Proficient (LEP); and,

10. Students with Disabilities (SWD) (based on the April 1 Headcount of Exceptional Children collected via CECAS).

Elementary and Middle School AMO Targets

1. Participation rate of 95 % in End-of-Grades Tests of Reading Comprehension (grades 3-8)
2. Participation rate of 95 % in End-of-Grade Tests of Mathematics (grades 3-8)
3. Proficiency rate in End-of-Grades Tests of Reading Comprehension (grades 3-8)
4. Proficiency rate in End-of-Grade Tests of Mathematics (grades 3-8)
5. Other academic indicator (OAI), attendance for schools in grades 3 to 8.

High School AMO Targets (grade 10)

1. Participation rate of 95 % in End-of-Course Test of English I or its alternate (NCEXTEND1/NCEXTEND2)
2. Participaton rate of 95 % in End-of-Course Test of Algebra I or its alternate (NCEXTEND1/NCEXTEND2)
3. Proficient rate in End-of-Course Test of English I or its alternate
4. Proficient rate in End-of-Course Tests of Algebra I or its alternate
5. Other academic indicator (OAI), 4-year and 5-year cohort graduation rate (if the high school does not graduate seniors, then attendance is the OAI).

The AMO targets for 2011-12 through 2016-17 are available at <http://www.ncpublicschools.org/accountability/reporting/abc/2011-12/>.

NCLB Required 95% Participation

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

Schools in First Year of Operation

Schools in the first year of operation will receive an AMO status. However, they will not be able to invoke safe harbor until they have been in operation at least two years.

Other Academic Indicators (OAI)

Progress on **attendance** is defined as at least 0.1 percentage point increase from one year to the next, up to the threshold of 90%). For the **cohort graduation rate**, progress is defined as at least a 2 percentage point increase from one year to the next (up to the threshold of 80%) for the 4-year cohort graduation rate, or at least a 3 percentage point increase from one year to the next (up to the threshold of 80%) for the 5-year cohort graduation rate. Any fluctuation above the threshold meets 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. In the AMO Detail Reports, progress is denoted as “Met With Improvement (Met w/Impr).”

Subgroup Size

A subgroup must have at least 40 students, with the exception of the school as a whole if there are no subgroups; in the latter case 5 or more students will be utilized for OAI and 3 or more students

for proficiency targets. For proficiency and attendance targets, only students in membership for 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 End-of-Course.

Annual Measurable Objectives (AMOs)

For grades 3 through 8 and high school, the new AMOs targets by subgroups, the reading AMO targets for 2011-12 are:

| Reading | | |
|-----------------------------|------------|-----------|
| Subgroup | 3-8 | HS |
| <i>Total (All students)</i> | 73.0 | 87.2 |
| Native American | 61.8 | 75.5 |
| Asian | 80.8 | 88.4 |
| Black | 57.8 | 77.8 |
| Hispanic | 61.1 | 80.2 |
| Two or More Races | 75.5 | 89.5 |
| White | 83.2 | 93.0 |
| Economically Disadvantaged | 61.4 | 78.9 |
| Limited English Proficient | 42.4 | 42.0 |
| Students With Disabilities | 44.5 | 50.9 |

For grades 3 through 8 and high school, the new AMOs targets by subgroups, the mathematics AMO targets for 2011-12 are:

| Math | | |
|-----------------------------|------------|-----------|
| Subgroup | 3-8 | HS |
| <i>Total (All students)</i> | 83.7 | 84.0 |
| Native American | 77.5 | 75.9 |
| Asian | 92.4 | 92.2 |
| Black | 71.4 | 72.0 |
| Hispanic | 80.2 | 80.8 |
| Two or More Races | 84.9 | 84.7 |
| White | 90.4 | 90.1 |
| Economically Disadvantaged | 76.2 | 75.7 |
| Limited English Proficient | 71.1 | 56.2 |
| Students With Disabilities | 59.9 | 51.1 |

Safe Harbor Provision

Safe Harbor is the first provisional status calculation applied. If a subgroup meets the 95% participation rate target 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 percentage 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. These data include the previous years' proficiency results by subgroup, with all the AMO decision rules appropriately applied, i.e., 140 days in membership and 40 students in a subgroup. If a subgroup does not have the minimum number 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)

Proficiency statistics (e.g., percent proficient) provide an estimate of a student group's performance or a school's aggregate proficiency. The more students taking the test in a particular group, the more confident we can be of the results. A confidence interval acknowledges a margin of uncertainty associated with any group statistic. For each student group, a 95 percent confidence interval is used around the percentages of students scoring proficient in English language arts and/or mathematics to determine whether target goals for AMO 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 Annual Measureable Objectives (AMO) for Title I targeted assistance schools (TAS). AMO targets 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 AMO results for TAS using all students in the school. If the subgroup in the TAS does not meet the AMO targets, then NCDPI will analyze the results for served students; if the subgroup in the TAS again does not meet the AMO targets, then NCDPI will analyze the results for eligible students. These additional analyses are contingent upon the LEA identifying the appropriate students.

NCLB Trajectory Growth

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, and cannot be combined for a single subgroup with either safe harbor or the confidence interval.

Operational Procedures

The Division of Accountability Services provides software and other resources for LEAs to verify the completeness of their data and to view and publish their AMO results. Reports included the

numbers and percentages of AMO targets met by their schools. Full AMO results will be presented to the State Board of Education at the August 2, 2012 SBE meeting.

Considerations for AMO 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 AMO. 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 AMO (with the exception that the graduation rate must be used as the OAI in schools that graduate seniors). To determine which part to keep, add the number of students with FAY in math and English language arts 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. 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 AMO targets.
5. For K-2, the elementary school that receives the largest percentage of students from the K-2 school is used to report AMO targets.
6. For the special education schools, vocational/career schools, and hospital schools, at least half the feeding schools are used to report AMO targets.

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

Historical Background

Current changes to AMOs implemented in 2011-12

1. The NCDPI will no longer designate each school as having met or not met Adequate Yearly Progress (AYP). For each school, the NCDPI will report the number of Annual Measureable Objectives (AMOs) and the number of those targets met as well as the percentage of targets met.
2. The ESEA waiver specified AMO targets will be used for reporting. These targets are (1) based on 2010-11 data and (2) identified for each federally reported subgroup for reading and for mathematics. Per the flexibility waiver, the AMO targets were set with the goal of reducing the percentage of non-proficient students by one-half within six years at <http://www.ncpublicschools.org/accountability/reporting/abc/2011-12/>.
3. To meet the criteria for an Honor School of Excellence per the ABCs of Public Education, a

school will have to meet all of its AMO targets. Meeting all of the AMO targets replaces the previous requirement of having met AYP. Meeting expected growth and having a performance composite of 90 percent of higher continue to be required for the Honors School of Excellence designation.

4. The Cohort Graduation Rate (CGR) for 4-year and 5-year will be reported by subgroups.

Changes implemented in 2010-11

1. New AYP proficiency targets for meeting annual measurable objectives (AMOs) were implemented for grades 3-8, grades 3-8 mathematics, grade 10 reading/language arts, and grade 10 mathematics per North Carolina's approved Accountability Workbook.
2. "Pacific Islanders" students were included with "All Students" per new federal regulations.
3. The "Multiracial" subgroup was reported as "Two or More Races" per new federal regulations.

Changes implemented in 2009-10

1. The SBE allowed retest scores on EOC assessments (first retest only) in the calculation of AYP (where appropriate). All students who scored Achievement Level II on the first administration of the EOC assessments were retested, and parents of students who scored Achievement Level I on the first administration were notified that they may request that their children be retested. The higher of the two scores (original score or first retest score) was used for AYP calculations.
2. The North Carolina Checklist of Academic Standards (NCCLAS) was removed from the testing program based on the USED peer review, which disallowed the assessment for AYP purposes.
3. Progress on the cohort graduation rate was redefined as at least a 2 percentage point increase from one year to the next (up to a threshold of 80%) for the 4-year cohort graduation rate, or at least a 3 percentage point increase from one year to the next (up to a threshold of 80%) for the 5-year cohort graduation rate.

Changes implemented in 2008-09

1. Initial scores and first retest scores will be used in AYP calculations for grades 3 through 8 beginning in 2008-09. If the first retest score is the higher of the two scores, then the initial score will be replaced by the first retest score. Second retest scores will not be used in AYP calculations.
2. Effective with the 2008-09 school year, OCS students are counted as nonparticipants for AYP calculations.
3. Students with disabilities: If the number of students with disabilities in a school is 40 or more, and the SWD subgroup in the school failed to meet its AYP target, then students who exited this subgroup within the last two years may be considered members of the subgroup for purposes of AYP in the current year.

Changes implemented in 2007-08

1. Algebra I and English I (reset AMOs) – The SBE approved revised 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). To effect this transition, an equi-percentile approximation of the new edition cut scores was determined for the previous edition tests. Then the proficiency for each student was

- recalculated for the previous edition test scores that were banked for the tenth grade reading and mathematics AYP calculations. This effectively made the proficiency determinations on the banked scores comparable to the proficiency determinations on the new editions of Algebra I and English I. The new AMOs were then set using the procedures originally prescribed in the NCLB Final Regulations from the U.S. Department of Education (USED).
2. Science Testing at the High School Level – The USED approved the use of the Biology EOC assessment as the high school science component under No Child Left Behind (NCLB) using results from all 11th graders (including banked scores from students who took the assessments in earlier grades). However, science results are only reported and will not be included in the calculation of AYP.
 3. For 2007-08 only, AYP results are to be released in two stages. High school AYP and AYP results for mathematics in grades 3-8 will be reported first (August SBE meeting). AYP results for reading in grades 3-8 will be reported at the November SBE meeting.

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) linked the new assessment scores to the old scale using an equi-percentile method and continued 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 reviewed the first report of a 4-year cohort graduation rate for NC's schools. This summer was the first time that the 4-year cohort graduation rate was used to determine if a subgroup can access safe harbor at the high school level. The SBE adjusted the threshold to 80% for the graduation rate target.

Changes implemented in 2005-06

1. Beginning in 2005-06 North Carolina applied a modified form of its ABCs growth model to add an additional layer to the Accountability Model. This decreased the likelihood of falsely identifying schools as being in need of improvement that are providing a 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).

The method for calculating both growth and trajectory can be found in "North Carolina's Proposal to Pilot the Use of a Growth Model for AYP Purposes in 2005-06", April 16, 2006. <http://www.ncpublicschools.org/docs/accountability/reporting/abc/2005->

As required by the USED as part of the trajectory growth pilot, beginning in 2006-07, the percentage 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 and for non-proficient students it is the trajectory growth target) will be reported with the AYP results for the school.

2. There is a 2.0% 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 modified assessments.

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 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% 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 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.
9. 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.)
10. 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.
11. Allowing site visits by a School Improvement team to make AYP designations for schools with two (2) or fewer students meeting the FAY requirements.