

**A Guide to the 2013-14 Annual
Adequate Yearly Progress Report**

April 2014



**North Dakota Department of Public Instruction
Kirsten Baesler, State Superintendent
600 East Boulevard Avenue, Department 201
Bismarck, North Dakota 58505-0440
<http://www.dpi.state.nd.us/testing/index.shtm>**

A Guide to the 2013-14 Annual Adequate Yearly Progress Report

Contents

Executive Summary	3
I. Purpose	4
A. Primary Indicators: Student Achievement and Participation	4
B. Secondary Indicators: Attendance or Graduation	4
II. Primary Indicators: Student Achievement and Participation	5
A. School Student Achievement Rate	5
B. Student Achievement AYP Defined	6
C. Student Participation AYP Defined	11
D. Protection Against Individual Student Identification	12
E. Combining Insufficient Data With Previous Years' Data to Determine AYP Status	12
F. Reading AYP Determination	14
G. Mathematics AYP Determination	16
H. AYP Report Legend	16
III. Secondary Indicators: Attendance or Graduation	17
A. Student Attendance Rates Defined	17
B. Student Graduation Rates Defined	17
IV. Final Adequate Yearly Progress Determination	21
V. Contacts	21
Appendix A: Calculating a Test of Statistical Significance to Determine the Reliability of an AYP Determination	22

A Guide to the 2013-14 Annual Adequate Yearly Progress Report

Executive Summary

The North Dakota Department of Public Instruction prepares and publishes annual adequate yearly progress reports for each public school, public school district, and the state, in the aggregate and by certain subgroup designations. Adequate yearly progress reports are generated based on (1) student achievement in reading and mathematics on the state's annual assessments, (2) student attendance rates in elementary and middle schools, and (3) student graduation rates in high schools. All school, district, and state performance rates are compared against approved achievement goals. The Department applies a 99% confidence interval to ensure reliable determinations.

The state measures school adequate yearly progress in up to 45 different categories. District adequate yearly progress reports up to 46 different categories. During the determination process, schools receive the benefit of a five-tiered review; districts and the state receive the benefit of a four-tiered review:

1. Review of 2013-14 achievement, attendance, and graduation data with a reliability test;
2. Review of 2012-13 and 2013-14 achievement, attendance and graduation data with a reliability test;
3. Review of 2011-12, 2012-13, and 2013-14 achievement, attendance, and graduation data with a reliability test;
4. Determination of Safe Harbor, marking at least a 10% improvement in performance from the preceding year. This marks the end of the review process for districts and the state only.
5. Review of targeted Title I student achievement, attendance, and graduation data with a reliability test;
 - a. Review of 2013-14 achievement, attendance, and graduation data with a reliability test;
 - b. Review of 2012-13 and 2013-14 achievement, attendance and graduation data with a reliability test;
 - c. Review of 2011-12, 2012-13, and 2013-14 achievement, attendance, and graduation data with a reliability test;
 - d. Determination of Safe Harbor, marking at least a 10% improvement in performance from the preceding year.

If a school passes any of these five levels of review, the school is identified as "*Met adequate yearly progress*." If a school does not pass any of these five levels of review, as is applicable to the school, then the school is identified as "*Did not make adequate yearly progress*." This multi-step determination process ensures that any designation of "*Did not meet adequate yearly progress*" is reliable and constitutes a warranted identification.

A Guide to the 2013-14 Annual Adequate Yearly Progress Report

North Dakota Department of Public Instruction March 2014

I. Purpose

The North Dakota Department of Public Instruction generates and disseminates annual Adequate Yearly Progress (AYP) Reports for every public school, public school district, and the state as required by state and federal laws. These AYP reports identify the performance of each school, district, and the state related to certain key indicators:

A. Primary Indicators: Student Achievement and Participation

- (1) Student achievement in mathematics and reading in the aggregate and disaggregated by subgroup as measured on the North Dakota State Assessments; and
- (2) Student participation in the North Dakota State Assessments in mathematics and reading in the aggregate and disaggregated by subgroup.

The state administers science and language arts assessments for all public schools; however, neither content area is included in the calculation of AYP.

B. Secondary Indicators: Attendance or Graduation

- (1) Student attendance rates for elementary and middle schools; or
- (2) Student graduation rates for high schools.

A brief description of each indicator and a summary of the calculation method used to determine the value of each indicator are presented within these instructions. The legal requirements and protocols referenced to generate AYP reports are presented within the North Dakota Consolidated State Application Accountability Workbook (hereafter referred to as the ND Accountability Plan), approved by the U.S. Department of Education, and is available at the following web address: <http://www.dpi.state.nd.us/grants/proposal2011.pdf>. There have been no substantive changes to the State's AYP procedures; therefore, the posted ND Accountability Plan remains the operative plan. Although not intended to replace the North Dakota Accountability Plan, this guide will aid educators and the public to understand the major components of these AYP reports.

AYP determinations are made independently for each public school plant, each public school district, and the state based on the same AYP rules identified in the North Dakota Accountability Plan.

- *School AYP Report.* A school's AYP report includes all students receiving educational services from the identified public school plant;

- *District AYP Report.* A district's AYP report rolls up or includes all students receiving educational services from all public school plants within the district;
- *State AYP Report.* The state's AYP report rolls up or includes all students receiving educational services from all public school districts and state institutions within the state.

To access any AYP report, refer to the Department's website at the following address: <http://www.dpi.state.nd.us/dpi/reports/profile/index.shtm>. These instructions reference the school AYP report for simplicity; nevertheless, the rules and procedures provided herein apply equally for all public school district and state AYP reports.

II. Primary Indicators: Student Achievement and Participation

The primary indicator for measuring a school's adequate yearly progress is *student achievement in reading and mathematics*. Student achievement is reported as (1) a composite score representing all students assessed within the school and as (2) disaggregated scores from selected student subgroups that are reported separately. Only students who have attended a school for a *full academic year* within the designated *school district* are included in the AYP determination process.

The 2013-14 AYP reports are calculated based on the definition of a *full academic year*, which comprises 173 instructional days within the district, including summer instruction, from the end of the previous year's assessment period to the end of the current year's assessment period. For the typical student, a full academic year spans the time from the end of the previous school year's assessment period (i.e., November 2012) and the end of the current school year's assessment period (i.e., November 2013). These dates may vary for students who participate in the state's alternate achievement assessments. Any students identified by schools and verified by the Department of Public Instruction as having fewer than 173 instructional days within the designated school district are removed from consideration in determining AYP. School personnel record the full academic year status of all students on the online assessment report that accompanies the North Dakota state assessments.

The AYP report removes from consideration any student with an identified significant medical emergency, any foreign exchange students, or any home education students.

The North Dakota state assessments in reading/language arts and mathematics were administered in 2013-14 in grades 3, 4, 5, 6, 7, 8, and 11. Science assessments were administered in grades 4, 8, and 11. The assessment results for reading and mathematics are used in the determination of achievement AYP for 2013-14. The assessment results for language arts and science are not used in the determination of AYP. A school's AYP determination may include up to three years' achievement data, inclusive of grades 3-8 and 11 based on the school's grade configuration, to ensure a reliable determination.

A. School student achievement rate. A school's student achievement rate is reported as the percentage of students within the school that score proficient or advanced on the North Dakota State Assessments in each of reading and mathematics.

A school's student achievement rate is derived from the following formula:

Number of students within the school who scored
proficient and advanced on the ND State Assessments
 (divided by)

Number of students within the school with recorded scores on the ND State Assessments

B. Student achievement AYP defined. A school's adequate yearly progress for student achievement is calculated by comparing a school's student achievement rate in mathematics and reading independently against the designated state intermediate goal for that subject and grade. Refer to the North Dakota Accountability Plan, Section 3.2 for a detailed presentation on the calculation of the state's intermediate goals for reading and mathematics during the years 2002-2014. Listed below is a summary chart.

State Intermediate Achievement Goals, 2002-2014

Goals for Percentage of Students Scoring Proficient and Advanced in Reading/Math Graduation and Attendance Rate Goals

Subject/ Grades	School Years*												
	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
Reading													
4	65.1%			73.8%			82.6%			91.3%			100%
8	61.4%			71.1%			80.7%			90.4%			100%
11	NA			57.2%			71.5%			85.7%			100%
12	42.9%			NA			NA			NA			NA
Math													
4	45.7%			59.3%			72.9%			86.4%			100%
8	33.3%			50.0%			66.7%			83.3%			100%
11	NA			43.1%			62.1%			81.0%			100%
12	24.1%			NA			NA			NA			NA
Graduation	89.9%				73.09%**					89%***			
Attendance	93.0%												

* During 2001-04 the state assessment was administered at the 12th grade. Since 2004-05 the state assessment has been administered at the 11th grade, to replace the 12th grade assessment.

**In 2005-06 the graduation goal was recalculated according to rules set forth within the State's accountability Workbook to move from a senior-year to a four-year graduation rate formula.

***Beginning in 2009-10 a new graduation goal was set by the State Superintendent to meet certain rigorous federal graduation requirements.

All determinations of adequate yearly progress for 2013-14 are based on the achievement goals identified in the above chart, as defined for all AYP determinations conducted during the time frame 2013-14. For example, during 2013-14, the achievement goal referenced in reading at the 4th grade is set at 100%. The state's baseline achievement goals were calculated in 2002 based on federally defined rules. Federal law requires that the achievement goals rise incrementally until 2013-2014, when the goal will be set at 100% proficiency.

School's 2013-14 achievement goal. The state intermediate achievement goals identify what percentage of students in a given subject (i.e., reading and mathematics) and grade (i.e., 4,

8, and 11) must be proficient/advanced during a specified year. A school's AYP report presents actual student performance separately for reading and mathematics across all its tested grades. To arrive at an appropriate AYP determination for an entire school, it is necessary to equate or weight the effects of different grades with their different intermediate goals.

If a school tests more than one grade, then the state intermediate goal for each respective grade is equated or "weighted" based on the proportion of students within each respective grade. This weighting produces a single composite goal that the school must make. In effect, a school's weighted goal equates the state intermediate goal across all tested grade levels for that school. The product of the school's weighted goal is listed on the AYP report as the "*Achievement Goal*."

A school's weighted goal, i.e. achievement goal, is calculated based on the school's grade configuration (e.g., K-6, K-8, 6-9, 9-12). If a school has a grade that coincides with any grade that has an identified state intermediate achievement goal, as specified for grades 4, 8, and 11 in the table above, then the school adopts that achievement goal for its goal. If, however, a school has more than one grade that coincides with any grades that have a designated state intermediate achievement goal, then the school adopts a weighted achievement goal, based on the relative number of students in each respective grade. For instance, a K-6 school contains solely the grade 4 reading intermediate goal of 91.3%; therefore, that school adopts an achievement goal of 91.3%. However, a K-8 school includes both the grade 4 (91.3%) and the grade 8 (90.4%) intermediate goals; therefore, a weighted calculation results in a rate that lies between the two percentages. Assuming equal numbers of students in each grade, the weighted goal, or achievement goal, will equal 90.85%. The achievement goal for each of grades 4, 8, and 11 for 2013-14 is 100%; therefore, the weighted goal in all cases is 100%.

An individualized achievement goal is calculated for each school based on its unique configuration and distribution of student population among the grades. A school's *achievement goal* is derived from the following formula:

$\frac{[N_y \times \text{SIG}_y] + [N_z \times \text{SIG}_z]}{N_y + N_z}$

The variables above are defined below within an example of a combined K-8 school:

N_y = the *number* of students within grade level "y" (e.g., grade 4) who participated in the ND State Assessments at that respective grade level as identified on the school's pupil membership file;

SIG_y = the *state intermediate goal* for either reading or mathematics within grade "y" (for example, the intermediate goal for reading at the 4th grade is 91.3% proficiency);

Nz = the *number* of students within grade level “z” (e.g., grade 8) who participated in the ND State Assessments at that respective grade level; and

SIGz = the *state intermediate goal* for either reading or mathematics within grade “z” (for example, the intermediate goal for reading at the 8th grade is 90.4% proficiency).

A school’s 2013-14 achievement goal is referenced to determine a school’s AYP determination for each composite and subgroup indicator, within mathematics and reading respectively. If an insufficient number of students exist in a composite or subgroup indicator within a given year, then the achievement goal is calculated based on multiple year data. Refer to Section E below for an overview of this process.

Calculating AYP

To determine a school’s AYP status, up to 45 independent indicators are reviewed. School districts are measured against up to 46 independent indicators, since districts receive both the elementary secondary indicator (i.e., attendance) and the high school secondary indicator (graduation). These indicators include the following.

Indicators Referenced in Determining AYP

I. Primary Indicators: Student Achievement on State Assessment					
<i>Population</i>	<i>Math Achievement</i>	<i>Math Student Participation (95%)</i>	<i>Reading Achievement</i>	<i>Reading Student Participation (95%)</i>	<i>Graduation (89%)</i>
<i>Total</i>	*	*	*	*	*
<i>White students</i>	*	*	*	*	*
<i>Native American students</i>	*	*	*	*	*
<i>Black students</i>	*	*	*	*	*
<i>Asian students</i>	*	*	*	*	*
<i>Hispanic students</i>	*	*	*	*	*
<i>Economic disadvantaged</i>	*	*	*	*	*
<i>Disabilities</i>	*	*	*	*	*
<i>Limited English Proficient</i>	*	*	*	*	*
II. Secondary Indicators					
<i>A. Elementary/Middle Schools: attendance rates</i>			*		
<i>B. High Schools: graduation rates (See Graduation column subgroup listing)</i>					

Student achievement on the North Dakota State Assessments is a primary indicator in determining AYP. To determine a school’s, school district’s, or subgroup’s student achievement AYP status, the following rules apply. These rules apply for the determination

of each of the up to 46 indicators, including student achievement and student participation on the state assessment, student attendance rates, and student graduation rates.

Step One: Calculating AYP on Current Year Achievement Data, 2013-14.

1. If a school's 2013-14 student achievement rate is equal to or greater than the school's achievement goal, then the school is identified as "*Met adequate yearly progress.*"
2. If a school's 2013-14 student achievement rate is less than the school's achievement goal, then a statistical test is applied to determine a level of confidence in making an AYP determination. Refer to Appendix A for a detailed explanation of the applied statistical test.
 - a. If it cannot be determined with greater than 99% confidence that the school's achievement rate is lower than the school's achievement goal, then the school is identified as "*Met adequate yearly progress;*" or
 - b. If it can be determined with greater than 99% confidence that the school's achievement rate is lower than the school's achievement goal, then the school's review passes to the next step which involves a second statistical test based on combining the 2013-14 with the 2012-13 achievement data.

Note: If a school has a 100% achievement goal for any indicator a binomial test of significance cannot be conducted, since by definition a 100% rate has no confidence interval.

Step Two: Calculating AYP on the Combined Achievement Data of 2012-13 and 2013-14.

If student achievement data from 2013-14 is significantly lower than the school's achievement goal as determined in Step One, then student achievement data from 2012-13 and 2013-14 will be combined and reviewed.

1. If a school's combined two-year student achievement rate is equal to or greater than the school's achievement goal, then the school is identified as "*Met adequate yearly progress.*"
2. If a school's combined two-year student achievement rate is less than the school's achievement goal, then a statistical test is applied to determine a level of confidence in making an AYP determination. Refer to Appendix A for a detailed explanation of the applied statistical test.
 - a. If it cannot be determined with greater than 99% confidence that the school's multi-year achievement rate is lower than the school's achievement goal, then the school is identified as "*Met adequate yearly progress;*"
 - b. If it can be determined with greater than 99% confidence that the school's multi-year achievement rate is lower than the school's

achievement goal, then the school's review passes to the next step which involves a third statistical test based on combining the 2011-12, 2012-13, and 2013-14 achievement data.

Step Three: Calculating AYP on the Combined Achievement Data of 2011-12, 2012-13, and 2013-14.

If student achievement data from the combined review of 2012-13 and 2013-14 is significantly lower than the school's achievement goal as determined in Step Two, then student achievement data from 2011-12, 2012-13, and 2013-14 will be combined and reviewed.

1. If a school's combined three-year student achievement rate is equal to or greater than the school's achievement goal, then the school is identified as "*Met adequate yearly progress.*"
2. If a school's combined three-year student achievement rate is less than the school's achievement goal, then a statistical test is applied to determine a level of confidence in making an AYP determination. Refer to Appendix A for a detailed explanation of the applied statistical test.
 - a. If it cannot be determined with greater than 99% confidence that the school's multi-year achievement rate is lower than the school's achievement goal, then the school is identified as "*Met adequate yearly progress;*"
 - b. If it can be determined with greater than 99% confidence that the school's multi-year achievement rate is lower than the school's achievement goal, then the school's review passes to the next step which determines whether the school made Safe Harbor, or designated incremental improvement.

Step Four: Calculating Safe Harbor.

"Safe Harbor" is a process that recognizes a school for making significant improvements in student achievement on the state assessments, even though its achievement levels may be below the school's achievement goal. If a school has not made adequate yearly progress through Step Three, then a test for Safe Harbor is conducted. Safe Harbor recognizes schools that have reduced the percentage of below-proficient students by 10% from the previous year. No test of significance is conducted in the determination of Safe Harbor. Safe Harbor for achievement may be granted only if the school has also met its secondary indicator, i.e., attendance for elementary and middle schools and graduation for high schools. If a school has not made AYP in its secondary indicator, then it cannot be granted Safe Harbor.

1. If a school achieves the conditions of Safe Harbor, then the school is identified as "*Met adequate yearly progress.*"

2. If a school does not achieve the conditions of Safe Harbor, then the school's review passes to the next step, which determines whether the school is eligible to receive an independent review of only those students enrolled in targeted Title I services.

This marks the end of the review process for districts and the state.

Step Five: Title I Targeted Assistance Rule.

The State Accountability Plan allows for any Title I targeted assistance school that does not make adequate yearly progress in the current year, because of achievement, to be considered for a separate AYP review based only on its Title I students and its Title I eligible students. An independent AYP calculation is conducted on only the school's Title I students and Title I eligible students, as identified within the state Assessment Demographic Report and the state Pupil Membership Report. Calculations are conducted according to the procedures presented in Steps One through Four above on only Title I students and Title I eligible students within Title I targeted assistance schools.

1. If this independent calculation indicates that the Title I students' and Title I eligible students' participation, in the aggregate and by subgroups, meet or exceed the required levels, then the school is identified as "*Met adequate yearly progress.*"
2. If a Title I targeted assistance school does not meet or exceed the conditions of the Title I Targeted Assistance Rule, and does not meet or exceed the school's achievement goal, then the school will be identified as "*Did not meet adequate yearly progress.*"

Review Process Summary.

As outlined above, schools and subgroups receive the benefit of a five-tiered review; districts receive the benefit of a four-tiered review for achievement AYP determination:

1. Review of 2013-14 achievement data with a reliability test;
2. Review of 2012-13 and 2013-14 achievement data with a reliability test;
3. Review of 2011-12, 2012-13, and 2013-14 achievement data with a reliability test;
4. Determination of Safe Harbor. This marks the end of the review process for districts and the state.
5. Review of targeted Title I student achievement data with a reliability test;
 - a. Review of 2013-14 achievement data with a reliability test;
 - b. Review of 2012-13 and 2013-14 achievement data with a reliability test;
 - c. Review of 2011-12, 2012-13, and 2013-14 achievement data with a reliability test;
 - d. Determination of Safe Harbor.

If a school passes any of these five levels of review, the school is identified as "*Met adequate yearly progress.*" If a school does not pass any of these five levels of review, as is applicable to the school, then the school is identified as "*Did not make adequate yearly progress.*" This multi-step determination process ensures that any designation of "*Did not meet adequate yearly progress*" is reliable and constitutes a warranted identification.

C. Student participation AYP defined. Student participation on the North Dakota State Assessments is a primary indicator in determining AYP. Adequate Yearly Progress is determined on student participation rates to ensure that all students are engaged in the state's accountability system. The participation rate is calculated by dividing the number of students with achievement scores, on both the standard and alternate assessments, by the number of students reported on the fall enrollment report and validated on the online assessment report. The law requires a 95% participation rate; the state applies a statistical reliability test to determine the AYP status. All students must be accounted for within the school's pupil membership report. The state audits school enrollment data to monitor school compliance with this requirement.

The 2013-14 AYP reports are calculated based on the definition of a *full academic year*, which comprises 173 instructional days. School personnel record the full academic year status of all students on the online assessment report that accompanies the state assessments.

The state Accountability Plan allows for the exemption of certain students with significant medical emergencies, foreign exchange students, or home education students from the requirement to participate in the state assessments.

Federal regulations established in 2007 restrict the inclusion of any score into the state's accountability system that results from the use of a test modification that invalidates the score. Specifically, reading out-loud reading passages constitutes an invalidation of the state's reading assessments. The use of any unapproved accommodation or modification will result in the designation of the student as a non-participant in the state's assessment system and will remove the student's score from both the numerator and denominator when calculating the percentage of students who are proficient.

A school's composite participation score is derived from calculating a school's participation rate:

$$\frac{\text{Number of students within each school with achievement scores on the ND State Assessments}}{\text{(divided by)}} \text{Total number of students reported on the school's fall enrollment report and validated on the online assessment report.}$$

To determine a school's student achievement AYP status, the same process and rules presented in "Calculating AYP" apply. The applicable student participation rate is set at 95%.

D. Protection against individual student identification. The *Family Educational Rights and Privacy Act* forbids the reporting of any information that might lead to the identification of an individual student. Refer to the state Accountability Plan, section 5.6, regarding the state's provisions to ensure the privacy of students.

Student Identification Protection Rule. If a school's or subgroup's sample is fewer than 10 students in one or up to three years, then no achievement data may be reported for that school or specific subgroup.

E. Combining insufficient data with previous years' data to determine AYP status. Any unreported achievement data, resulting from too few students in a school or subgroup in a given year, will be combined with achievement data in the following year. If the combined data consists of a student sample greater than nine students, then it will be reported to determine AYP according to rules. This reporting fulfills the law's validity provision. The State Accountability Plan provides that all students must be included, either in the current year or in subsequent years, in determining AYP. If there are too few students to report out in 2013-14, then these students will be combined with students from up to three years so that they may be included in AYP determinations.

Any achievement data may be referenced only once to determine AYP. No archival achievement data, already referenced or reported in a previous AYP determination, may be used again to determine AYP.

If the current year has a sample size too small to report AYP within a category, then up to two previous, unreported years' achievement data will be combined into the current year to allow for reporting. Only previously unreferenced, unreported data, combining up to three years of data, may be used to generate an AYP determination. If this combined data contains too few students (i.e., <10) to produce an AYP determination, then the reported category will state, "*Insufficient data to determine AYP status.*"

Weighted Averaging Across Years. If a school reported that any category (aggregate or subgroup) had "*Insufficient data to determine AYP status*" in the previous one or two-combined years, then the previous, unreported achievement data will be rolled in with the 2013-14 achievement data for calculations. Since the previous years' achievement data were calculated on the school's previous intermediate achievement goals, these data will be weighted proportionally in terms of the school's new 2013-14 intermediate achievement goals. The three-years of combined data will be equated or "weighted" based on the proportion of students within each respective year and each respective year's intermediate goal. This weighting produces a single, composite, multi-year goal that the school must meet or exceed. In effect, a school's weighted goal, or achievement goal, equates the years' different intermediate achievement goals across all tested grade levels for that school. The product of the school's multi-year weighted goal is listed on the AYP report as the "*Achievement Goal.*"

A school's *achievement goal* is derived from the following formula:

$$\frac{[N_x \times SWIG_x] + [N_y \times SWIG_y] + [N_z \times SWIG_z]}{(divided\ by)}$$

$$N_x + N_y + N_z$$

The variables above are defined below within an example of a combined K-8 school:

- N_x = the *number* of students within the school during year “x” (e.g., 2011-12) who participated in the ND State Assessments;
- SWIG_x = the *school’s weighted intermediate achievement goal* for reading or mathematics respectively during year “x” (for example, the weighted intermediate goal for reading at the 4th and 8th grade in 2011-12);
- N_y = the *number* of students within the school during year “y” (e.g., 2012-13) who participated in the ND State Assessments;
- SWIG_y = the *school’s weighted intermediate goal* for reading or mathematics respectively during year “y” (for example, the weighted intermediate goal for reading at the 4th and 8th grade during 2012-13);
- N_z = the *number* of students within the school during year “z” (e.g., 2013-14) who participated in the ND State Assessments; and
- SWIG_z = the *school’s weighted intermediate goal* for reading or mathematics respectively during year “z” (for example, the weighted intermediate goal for reading at the 4th and 8th grade during 2013-14).

F. Reading AYP Determination. Reading is the first of two subjects referenced to determine achievement and participation AYP. The reading section includes the following elements.

1. Achievement

- a. *Achievement Goal.* The weighted intermediate goal, or achievement goal, is the level of proficient/advanced scores that each school or subgroup must meet or exceed, given statistical reliability, in order to meet AYP. The determination of a school’s weighted intermediate goal is outlined in Section B above.
- b. *Composite.* The composite achievement score consists of the aggregated percentage of proficient and advanced students within the school compared with the school’s achievement goal, with the application of statistical reliability rules.

A composite achievement score is calculated according to the procedure outlined in Sections A and B above.

- c. *Subgroups.* The achievement score for each subgroup within a school is calculated and reported, given statistical reliability rules against the school’s achievement goal. Each subgroup is reported separately. The assignment of students to a subgroup is determined by school personnel, reported on the state’s online assessment report.

The achievement score for each separate subgroup is derived from the following formula:

$$\frac{\text{Number of subgroup students within the school who scored} \\ \text{proficient and advanced on the ND state assessments}}{\text{(divided by)}} \\ \text{Number of subgroup students within the school with recorded scores} \\ \text{on the ND state assessments}$$

A subgroup achievement score is calculated according to the procedures outlined in Sections A and B above.

The State Accountability Plan allows any English language learner (ELL) students who are newly arrived to the United States within the current school year to be exempted from taking the state assessment in reading for their first year. Instead, the newly arrived ELL student’s diagnostic English language literacy assessment (e.g., the state’s designated ELL assessment, World-Class Instructional Design and Assessment (WIDA)) may be provided as evidence of participation in the state assessment system. The newly arrived ELL student’s English language literacy assessment performance scores will not be referenced for adequate yearly progress; however, they will be counted for purposes of participation, accounting for any full academic year consideration.

Any limited English proficient (LEP) student who has reached full English proficiency may be considered as LEP for an additional two years to allow the school to receive recognition for the student’s achievements within the determination of adequate yearly progress.

2. *Participation.*

- a. *Composite.* Adequate Yearly Progress is determined on student participation rates to ensure that all students are engaged in the state’s accountability system. A composite participation score is calculated according to the procedures outlined in Section C above.
- b. *Subgroups.* Adequate Yearly Progress is determined on student participation rates for each subgroup to ensure that all students within subgroups are engaged in the state’s accountability system. A school’s subgroup participation rate is derived from the following calculation:

$$\frac{\text{Number of students within each subgroup} \\ \text{with achievement scores on the ND state assessments}}{\text{(divided by)}} \\ \text{Total number of subgroup students reported on the school’s fall} \\ \text{enrollment report and validated on the online assessment report.}$$

A subgroup participation score is calculated according to the procedures outlined in Section C above.

G. Mathematics AYP Determination. Mathematics is the second of two subjects referenced to determine achievement and participation AYP. The mathematics AYP determination includes the same process as outlined for reading in subsection F above.

The State Accountability Plan requires any English language learner (ELL) students who are newly arrived to the United States within the current school year to take the state assessment in mathematics, with appropriate accommodations. However, the state will not include these new ELL students' assessment results from the mathematics assessments for the purposes of determining achievement AYP during their first year in U.S. schools. New ELL students will have their mathematics assessment applied for determining participation AYP, accounting for any full academic year consideration.

Any limited English proficient (LEP) student who has reached full English proficiency may be considered as LEP for an additional two years to allow the school to receive recognition for the student's achievements within the determination of adequate yearly progress.

H. AYP Report Legend. The AYP report uses certain symbols to represent a school's AYP status within each category, e.g., reading composite, math LEP, or secondary indicator. The legend uses the following symbols to represent these AYP status statements:

- [No Symbol]** ***“Met Adequate Yearly Progress.”*** This statement indicates that the school met the requirements for AYP for that category, as indicated by the absence of a symbol next to the category's rating.

- *** ***“Did not meet Adequate Yearly Progress.”*** This statement indicates that the school did not meet the requirements for AYP for that category, as indicated by the placement of an “*” next to the category's rating.

- i** ***“Insufficient data to determine Adequate Yearly Progress.”*** This statement indicates that every category has an “i” for “*Insufficient data to determine Adequate Yearly Progress*”. Any category with an “i” for “*Insufficient data to determine Adequate Yearly Progress*” indicates that the 2013-14 student sample size (or the combined sample size from 2011-12, 2012-13, and 2013-14, if the previous years' data was not reported out) within that category was insufficient to make a reliable AYP determination and that multiple year data was referenced to generate a report. Consequently, one should be careful not to attribute any findings to this statement.

- +** ***“Graduation Improvement.”*** A plus sign (+) indicates that a high school has met its graduation AYP indicator based on a 4, 5-, or 6-year graduation improvement target. Refer to Section III(B) below for details.

III. Secondary Indicators: Attendance or Graduation

The secondary indicator for measuring a school's adequate yearly progress is either student attendance rates for elementary and middle schools or student graduation rates for high schools. Student attendance rates are reported as a composite score representing all students in the grades tested for the purposes of determining AYP. Student graduation rates are reported as a composite rate and for any reportable subgroups. To ensure optimal reliability, both attendance and graduation rates are determined based on pupil membership records submitted by school districts.

A. Student attendance rates defined. The State of North Dakota has adopted the student attendance rate for each school as the secondary academic indicator for determining AYP for elementary and middle schools.

The state has established a student attendance target rate of 93% based on North Dakota baseline impact data. Any school with an attendance rate that is statistically lower than this target point will be identified for not making Adequate Yearly Progress. This target point will remain as the state definition for attendance throughout the duration of the 2001-2014 school years.

Attendance rate is defined as the aggregate days of attendance in a school divided by the aggregate days of enrollment. The attendance rate is included in the aggregate for AYP. Attendance data are collected through the state's pupil membership reporting system. A statistical test is applied to ensure confidence that any AYP determination is reliable. Refer to Appendix A for a review of the statistical test.

The following formula applies for calculating a school's attendance rate:

$$\frac{\text{Total actual attendance days for all enrolled students in the grades tested}}{\text{(divided by)}} \\ \text{Total enrolled days for all students in the grades tested (grades 3-8 and 11)}$$

Student attendance is a secondary indicator in determining AYP. To determine a school's student attendance AYP status, the same process and rules presented in "Calculating AYP" apply. The applicable student attendance rate is set at 93%.

B. Student graduation rates defined. As specified within the state's Accountability Plan, the graduation rate now reports the percentage of students who entered the high school as members of the 2013 graduation class cohort and who ultimately graduated. The 2012 graduation cohort includes enrollment data from the cohort's ninth grade (2009-10 school year), tenth grade (2010-11 school-year), eleventh grade (2011-12 school-year), and twelfth grade (2012-13 school-year).

The State of North Dakota has established the graduation goal of 89% for each high school.

The graduation rate definition requires the state to report graduates, retentions, and dropouts, within cohorts, in the aggregate and, by subgroup. The state calculates graduation rates based on a school's reported dropout and graduation data. Student-specific graduation data are collected from the June 2013 Pupil Membership Report for the graduation class of 2013. Graduations that occur during the summer of 2013 are amended into the final rollup of graduates.

The graduation rate is defined by calculating a school's graduation rate:

$$\frac{\text{Number of cohort members who earned a regular high school diploma through summer 2013}}{\text{Number of first-time 9th graders in fall 2009 (starting cohort) plus students who transfer in, minus students who transfer out, emigrate, or die during school years 2009-10, 2010-11, 2011-12, 2012-13, and through summer 2013}}$$

Student graduation is a secondary indicator in determining AYP. To determine a school's student graduation AYP status, the same process and rules presented in "Calculating AYP" apply. The applicable student graduation rate is set at 89%.

On AYP reports for districts and the state, an AYP status score is recorded for both attendance and graduation.

Graduation Regulations Affecting 2013-14 Reporting

In 2008, the U.S. Department of Education (USDE) announced final regulations and guidance establishing a more uniform and accurate way of calculating high school graduation rates that will be comparable across all states nationwide (<http://www.ed.gov/policy/elsec/guid/hsgrguidance.pdf>). These new graduation rate reporting rules became effective with the 2010-11 adequate yearly progress reports.

The 2013-14 graduation reports calculate graduation rates based on a metric that reports a baseline graduation rate (2013 graduate cohort) with possible consideration of up to two years amended reporting (2011 six-year extended graduate cohort and 2012 five-year extended graduate cohort). These state reports effectively represent amended rolling graduation rates for each of the current and preceding two years (<http://www.dpi.state.nd.us/resource/graduation.shtm>). AYP reports specify aggregate and subgroup graduation rates for all high schools, districts, and the state.

Reportable within the 2013-14 academic year, the state incorporates a conditional, five-year and six-year extended adjusted cohort graduation rate rule, which will include the effect of students who take longer than four years to receive their high school graduation diploma. This five-year and six-year extended adjusted cohort graduation rate credits schools and

districts for successfully graduating students who take longer than four years to graduate high school with a regular high school diploma. The state accounts for the proper compilation, calculation, and reporting of any five-year and six-year extended cohort graduation rates as specified in the non-regulatory guidance, dated December 22, 2008, issued by the U. S. Department of Education.

Below is an illustration of how the four-year, five-year, and six-year cohort model will report graduation rates based on annual data amendments. Individuals are encouraged to study the 2008 federal guidance, which outlines the specific features and requirements of this forthcoming graduation rate report.

**Multi-Year Cohort Model
Progression of Reporting**

Status	2011 Graduate Cohort	2012 Graduate Cohort	2013 Graduate Cohort
Grad + 2 (Sixth year grads)	Amendment #2 (2013 update)		
Grad + 1 (Fifth year grads)	Amendment #1 (2012 update)	Amendment #1 (2013 update)	
Graduation Rate Baseline (Senior Year)	2010-11	2011-12	2012-13
Junior Year	2009-10	2010-11	2011-12
Sophomore Year	2008-09	2009-10	2010-11
Freshman Year	2007-08	2008-09	2009-10

Example: Amendment #2 of the 2011 Cohort (Grad +2, sixth-year extended graduates) represents those students who graduated in 2012-13 following the completion of their sixth year extended study.

The 2013-14 AYP report will provide for each high school and district a calculated graduation rate resulting from the first point where AYP is met in the following six steps:

- (1) the 2013 graduation cohort rate; if the graduation goal is not met then proceed to the next step.
- (2) the multi-year average of the 2013, 2012, and 2011 cohort; if the graduation goal is not met then proceed to the next step.
- (3) the calculation of Safe Harbor as defined on page 10, step 4; if the graduation goal is not met then proceed to the next step.
- (4) a growth measure equaling or exceeding a 10% reduction in non-graduates between the 2012 cohort and the 2013 cohort as referenced by the state's 89% goal; if the graduation goal is not met then proceed to the next step.
- (5) a growth measure equaling or exceeding a 12.5% reduction in non-graduates between the 2012 4-year cohort and the 2012 5-year extended cohort as referenced by the state's 89% goal; if the graduation goal is not met then proceed to the next step.

- (6) a growth measure equaling or exceeding a 15% reduction in non-graduates between the 2011 4-year cohort and the 2011 6-year extended cohort as referenced by the state's 89% goal.

If a school or district does not pass any of these six steps, then the school or district 2013 cohort rate will be listed and the school or district will be identified as not making AYP.

The State references the 89% graduation goal as the primary reference for determining sufficient achievement. The State uses unique targets for each of the respective years: the 2013 four-year cohort graduation rate uses a 10% improvement target; the 2012 five-year extended cohort graduation rate uses a 12.5% improvement target; and the 2011 six-year extended cohort graduation rate uses a 15% improvement target. The improvement target is measured as the percent reduction of non-graduates from the preceding year against the 89% goal. Meeting the goal or the improvement targets for any of the four-year, five-year extended, or six-year extended graduation rates would mean that the school or district had met the secondary indicator for adequate yearly progress. Reliability testing will be applied only to steps (1) and (2), where annual sample data are analyzed.

The State Retains the 89% Graduation Rate Goal

During 2009-10, the U.S. Department of Education issued a clarification to the 2008 graduation guidance, which specifically required each state to establish a new, rigorous graduation rate goal, effective with the 2009-10 adequate yearly progress reports. This graduation rate goal specifies what the expected graduation rate should be for all high schools and districts; however, all state-defined AYP graduation rate rules still apply, including possible multi-year averaging and reliability testing.

The State Superintendent established the 89% graduation rate goal following a review of historical graduation rate data, including aggregate and subgroup rates, and discussions with representatives of several key statewide advisory committees, which were facilitated by the Department of Public Instruction. Representatives from the following statewide advisory committees provided their analyses and recommendations for a state graduation rate goal: the State's advisory committee on standards and assessment, the State's special education advisory committee, and the Governor's Commission on Education. The State Superintendent made the final decision and set the new graduation rate.

The State Superintendent established the 89% graduation rate as a means of providing ample incentive for all schools statewide to achieve higher performance on the most important academic indicator for success, especially for those schools with lower graduation rates. The State Superintendent believes that this graduation goal reflects the public's expectations for increased student outcomes. If the schools statewide demonstrate increased subgroup graduation rates, both the subgroup and aggregate rates statewide will evidence increases beyond the established graduation rate goal. The Department of Public Instruction reserves the right to review and amend this statewide graduation rate at a later time.

IV. Final Adequate Yearly Progress Determination

The AYP report provides a final determination of a school's overall AYP status. This summary statement is listed at the bottom of the report. Three different AYP status statements may appear:

1. ***“Met Adequate Yearly Progress.”*** This statement indicates that the school met the requirements for AYP. The school's data did not generate any “*” for “*Did not meet Adequate Yearly Progress*” statements in any of the categories. There are no reliable data to indicate that the school has not met adequate yearly progress.

Any category with an “i” for “*Insufficient data to determine Adequate Yearly Progress*” indicates that the 2013-14 student sample size (or the combined sample size from 2011-12, 2012-13, and 2013-14, if the previous years' data were not reported out) within that category was insufficient to make a reliable AYP determination and that multiple-year data were referenced to generate a report. One should be careful not to infer any conclusions about a school's performance on a given category if the category is designated as “Insufficient data”.

2. ***“Did not meet Adequate Yearly Progress.”*** This statement indicates that the school did not meet the requirements for AYP in at least one category. There exist reliable data to report that the school has not met adequate yearly progress.
3. ***“Insufficient data to determine Adequate Yearly Progress.”*** This statement indicates that every category has an “i” for “*Insufficient data to determine Adequate Yearly Progress*”. Any category with an “i” for “*Insufficient data to determine Adequate Yearly Progress*” indicates that the 2013-14 student sample size (or the combined sample size from 2011-12, 2012-13, and 2013-14, if the previous years' data was not reported out) within that category was insufficient to make a reliable AYP determination and that multiple-year data were referenced to generate a report. One should be careful not to infer any conclusions about a school's performance on a given category if the category is designated as “Insufficient data”.

V. Contacts

Any questions related to the calculation of a school's adequate yearly progress may be forwarded to

Paula Gabel
Assessment Unit
North Dakota Department of Public Instruction
600 East Boulevard Avenue, Department 201, 9th Floor
Bismarck, ND 58505-0440
701-328-2296
pgabel@nd.gov

APPENDIX A

Calculating a Test of Statistical Significance to Determine the Reliability of an AYP Determination

Before a school can be identified as not making adequate yearly progress (AYP), a statistical reliability test is conducted to determine that the school did not, with 99% confidence, make the state's annual measurable objective (AMO). The state Accountability Plan uses a statistical test, a confidence interval based on the binomial distribution, to calculate the reliability of any AYP determination. The example provided below illustrates the process. For a thorough description of the reliability test, reference Section 9 of the State Accountability Plan. The reliability test is conducted on achievement levels, participation rates, attendance rates, and graduation rates.

An example is provided below to illustrate application of the test of statistical significance to achievement.

1. Determine the numbers of students used in AYP calculations.

The table below illustrates calculations to determine the number of students to use for AYP calculations. It includes the distribution of achievement levels in reading for a school's grade 4 students. Note that results from the ND State Assessment (NDSA) and the ND Alternate Assessment (NDAA) are combined.

- **Number of students (NDSA Summary Report):** the number of students whose levels of achievement were reported on the North Dakota State Assessment.
- **Number of students (ND Alternate Assessment):** the number of students with severe cognitive disabilities who took the North Dakota Alternate Assessment (in lieu of the NDSA).
- **Number of students not considered for AYP:** the number of students who, for various reasons, are not counted in determining AYP. Students who were not enrolled in a school *district* for 173 instructional days prior to the NDSA are not included in the school district AYP determination. Home education students and foreign exchange students are not included in calculation of AYP.
- **Total number of students used to calculate AYP (B+C-D):** Add columns B and C; subtract column D.

A	B	C	D	E
Achievement Level	Number of students (NDSA Summary Rpt)	Number of students (ND Alternate Assessment)	Number of students not considered for AYP	Total number of students used to calculate AYP (B+C-D)
Advanced	1	-	-	1
Proficient	8	1	1	8
Partially proficient	3	-	1	2
Novice	1	-	-	1
Total	13	1	2	12

2. Determine the State intermediate goal (SIG) for each grade and content area for the school.

If the school is organized as K-6 or 7-8 or 9-12, enrollment data from grade 4 or grade 8 or grade 11 are used to calculate weighted achievement goals for the purpose of determining AYP. Refer to pages 7-8 of the present document to identify the state intermediate goal for each grade (4, 8, 11) and content area (reading, mathematics). In the example below, AYP for reading achievement for grade 4 is being calculated based on an arbitrary state intermediate goal for grade 4 reading of 82.6%.

NOTE: When a school has more than one grade included in AYP calculations (e.g., the school is organized as K-8, therefore having grades 4 and 8 rolled together), the school will have a weighted intermediate goal that probably is not the same as the state intermediate goal. See the school's AYP report for its weighted intermediate goal in reading and in math. Look for "Achievement Goal" near the top of each column.

3. Conduct the test of statistical significance using Excel.

- In cell A1, enter the word "proficient" then tab down.
- In cell A2, enter the word "students" then tab down.
- In cell A3, enter the word "goal" then tab down.
- In cell A4, enter the word "result" then tab down.
- In cell B1, enter the *number* of students who are advanced and proficient (from Column E in the table above). Tab down.
In the example, 9 students are advanced or proficient.
- In cell B2, enter the total number of students who are being considered in the AYP calculation (from Column E Total). Tab down.
In the example, a total of 12 students would be included in the calculation.
- In cell B3, enter the state intermediate goal for the grade level and content area, as a decimal. Tab down.
In the example, the state intermediate goal for grade 4 reading is 82.6%; therefore, enter .826 in cell B3.
NOTE: If the school's intermediate goal is weighted because the results for more than one grade are used to determine AYP, enter the school intermediate goal as indicated on the school's AYP report. There will be one intermediate goal for reading, and a separate one for mathematics.
- In cell B4, enter the following: =BINOMDIST(B1,B2,B3,TRUE)
Tab down. The result will be calculated.
Note: there are no spaces between characters in the formula.

Note: A test of statistical significance may only be applied with a goal set at less than 100%.

A	B
proficient	9
students	12
goal	0.826
result	0.348725

- If the result is **less than .01**, then the school did not make AYP.
If the result is **more than .01**, then the school did make AYP.

In the example, the result is 0.348725, which is more than .01, indicating that the school did make AYP for the achievement indicator in reading in grade 4.

- Go back into cells B1, B2, and B3 to enter different numbers (of students, or the state intermediate goal) in order to calculate the result and determine whether AYP has been met. Additional examples are provided below.

A	B
proficient	5
students	12
goal	0.738
result	0.0185

Result is more than .01. School did make AYP.

A	B
proficient	5
students	12
goal	0.711
result	0.0316

Result is more than .01. School did make AYP

A	B
proficient	5
students	12
goal	0.826
result	0.0016

Result is less than .01. School did not make AYP.