Talking Points Related to Adequate Yearly Progress

Adequate Yearly Progress (AYP) is the NCLB provision that established a timeline under which schools must raise all students to the proficient level in reading and mathematics within 12 years. This proficiency is established through scores obtained on a common assessment determined by each state. In Iowa this proficiency is determined through student achievement data from ITBS and ITED and the alternate assessment. A state starting point for reading and mathematics at each required grade level to be tested was established using 2000-2001 and 2001-2002 achievement data. A formula to reach 100% proficiency by 2014 was also established by the state. Using biennium data, each school and district must meet an annual measurable objective (AMO). If this objective is not met for each subject area and each subgroup of students that must be disaggregated, then a confidence band is applied to determine statistical significance to the percentage of students proficient. If the percentage still falls outside of the confidence band, a safe harbor provision is applied. A school that does not meet AYP for two consecutive years will be identified as a School in Need of Assistance (SINA).

Confidence Intervals

A confidence interval (or confidence band) is an area of statistical similarity. Sometimes considered as a "buffer", the confidence interval reflects an area (or range) within which one group (e.g., the students in a school) is considered <u>NOT</u> to be statistically significantly different from another group (e.g., the students in the state). This is similar to public preference polls or surveys one reads about in the newspaper.

The question that we ask when a school's percent proficient is below the state's trajectory: To what extent is the percent of proficient students at a school different from the target percent proficient at the state level?

An example: "To what extent is the percent of proficient students in 4th grade Reading in school A [statistically significantly] different from the state's target proficiency level of 65 percent proficient for 4th grade Reading?

Our accountability system uses a 98% confidence band. This means that we have drawn a line that means we are 98% confident that the proportion of proficient students at a school is not statistically significantly different from the target proportion of proficient students at the state level. We are essentially stating that we are willing to accept the actual results' being due to chance about 2% of the time.

Two things affect the width of the confidence band: The number of students tested and the school's percent of proficient students. As the number of students tested increases, the width of the confidence band (or margin of error) decreases. The width of the confidence band is at its widest point when 50% of the students are proficient, and decreases as the percent proficient increases or decreases.

Example: If School A tested 30 full-academic-year students in Grade 4 Reading, and 48% of the students were proficient, the confidence band around this school's results would reach the state's trajectory. To determine the minimum percent proficient they would need to meet the target, we subtract the width of the confidence band (18.7%) from 65, resulting in the school

needing 46.3% proficient to be OK. Because they are statistically similar, they would not be identified under AYP provisions. However, if School B tested 100 full-academic year students in Grade 4 Reading with the same result (48% proficient), the confidence band around this school would not reach the state's trajectory. School B would need 54.7% proficient to be OK. Therefore, School B would be identified as a SINA school under AYP provisions.

For those who are interested, we used the following steps to determine the width of the confidence interval:

1. Multiply the School's % Proficient by the School's % Non-Proficient.
2. Divide your result by the <u>average</u> number of students for the <u>biennium</u> period.
3. Take the Square Root of your result.
4. Multiply that by 2.054.
5. If you add this to your percent proficient, and it is equal to or greater than the state's target, you're OK.
6. If you subtract this from the state's target, and the result is less than your percent proficient, you're OK.

Safe Harbor

If a school does not meet the Confidence Interval requirement, we will examine the data to see if the school meets Safe Harbor. Safe Harbor requires a school to "reduce the percentage of non-proficient students by at least 10%" (in addition to meeting the goals specified by the other academic indicator, disaggregated for the identified subgroup). For this year, we will use the data from 2001-2002 and 2002-2003 to examine the change in non-proficiency.

Example: If School A has 40% proficient (60% non-proficient), to meet Safe Harbor, School A would need to decrease the non-proficiency percentage by 10 percent, resulting in 54% non-proficient (60% multiplied by 0.9 equals the 10 percent reduction). The proficiency percentage, then, would need to increase to 46%. If School A also meets the other academic indicator (average daily attendance for elementary and middle schools; graduation rate for high schools), School A would be said to have made Safe Harbor.

Table of Examples for Safe Harbor

% Proficient	% Non-Proficient	10 % Reduction in Non-Proficient	% Non-Proficient Needed	% Proficient Needed
30	70	7%	63%	37%
40	60	6%	54%	46%
50	50	5%	45%	55%
60	40	4%	36%	64%
70	30	3%	27%	73%