

# STATE OF ALASKA

## Department of Education & Early Development *Office of the Commissioner*

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June 25, 2007

Dr. Kari Briggs,  
Acting Assistant Secretary  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202

Dear Dr. Briggs:

I write to confirm the understanding that the Alaska AYP status plus growth proposal submitted on May 1, 2007, will be altered based on our meeting on May 30, 2007.

Previous to the May 30, 2007, meeting, Alaska agreed to alter the AYP status plus growth proposal in the following ways:

1. While Alaska remains committed to including methods to address sampling error, the state has agreed to eliminate the 68% confidence interval proposed to be used around the status plus growth calculation as a condition of approval.
2. Eliminate resetting the trajectory when a student moves from one LEA to a new LEA.

During the May 30, 2007, meeting, Alaska listened to the concerns of the peers. To address the concerns, Alaska proposed an alteration to the proposed AYP status plus growth calculation. The rationale for this proposed alteration is to ensure students have a clear target established in the base year to meet proficiency within the required time frame as outlined in the proposal, and to address regression to the mean. This proposal ensures that no student who is performing at less than proficient, but receives a designation of on track to become proficient, is recognized for growth that is related to regression to the mean. Therefore this proposal makes clear the target students must meet to be counted as on track to become proficient from the first year growth is calculated, and ensures all students who are counted into the growth model are those students who improved in achievement.

The growth calculation for each school or subgroup, and district or subgroup, will be made by adding the number of students that are “on track to becoming proficient” to the number of students that already are proficient, multiplying by 100 and then dividing that result by the number of students eligible to be included. The students eligible to be included are the full academic year students as defined the currently approved accountability system. This section operationally defines the process by which the decision will be made of whether a student is “on track to becoming proficient.”

Students take a standards-based assessment (SBA) at the end of each school year in grades 3-10. The first year that a student is tested on an SBA is considered the student’s “base year,” and the student’s scaled score on that test is the student’s “base score.” If the student’s base year is grades 3-6, the student is given four years to become proficient. If the base year is grade 7 or higher, then the student is given the difference between the base year and 10; so, for example, if the student’s base year is grade 7, the student is given 3 years to become proficient, and if the student’s base year is grade 9, the student is

given 1 year to become proficient. Students must be proficient by the end of grade 10 to count positively for their school.

Using the student’s base score, a student will be assigned a “target score” to be achieved each of the subsequent years the student has to become proficient. If the student’s observed scaled score on the SBA is equal to or higher than the target score, and equal to or higher than the score from the previous grade level, the student will be considered to be “on track to becoming proficient” for that school year. If the observed scaled score on the SBA is less than the target or less than the score from the previous grade level, the student will be considered to not be on track and therefore will not count positively for his/her school.

The target score will be calculated by first estimating the student’s true score (using classical measurement theory) for the base year. Making those calculations requires the grand mean for the state and the reliability of the SBA taken in that base year. Table 1 provides those values, as published in the Technical Report for the SBA in 2006.

Table 1

Means and Reliabilities for the SBA Tests, by Subject by Grade,  
As Reported in the 2006 SBA Technical Report

Grade	Test			
	Mathematics		Language Arts	
	Mean	Reliability	Mean	Reliability
3	355	.91	728	.95
4	348	.90	735	.95
5	342	.91	724	.95
6	337	.92	704	.95
7	327	.92	701	.95
8	331	.92	719	.95
9	315	.92	699	.95
10*	327	.87	708	.92

\*Tenth grade added for reference only, but not used in growth calculations.

A student’s estimated true score (ETS) is calculated as follows:

$$ETS = \text{Grand Mean} + \text{Reliability} * (\text{Observed Score} - \text{Grand Mean})$$

Thus, for example, if a student has an observed score on the grade 3 mathematics test of 200, then the student’s ETS for that test is  $355 + .91 * (200 - 355)$ , or 214.

Note that the language arts score is a combination of the reading score and the writing score, consistent with the approved Alaska Accountability Workbook. It takes a score of 300 to be proficient in reading or in writing, therefore for the purposes of AYP it takes a score of 600 to be considered proficient. Table 2 provides data on the mean score for each separate subject and the mean composite, which is the language arts score in Table 1.

Table 2

Grade	Mean reading	Reading Reliability	Mean writing	Writing Reliability	R – W Corr	Mean Composite	Composite Reliability
3	368	0.91	360	0.92	0.847	728	0.95
4	369	0.91	366	0.89	0.845	735	0.95
5	366	0.92	358	0.89	0.857	724	0.95
6	356	0.91	348	0.89	0.859	704	0.95
7	357	0.9	344	0.9	0.84	701	0.95
8	368	0.9	351	0.9	0.859	719	0.95
9	354	0.91	345	0.89	0.856	699	0.95
10*	360	0.88	348	0.84	0.795	708	0.92

\*Tenth grade added for reference only, but not used in growth calculations.

The target for each subsequent year is the original ETS, incremented by the annual required gain. The annual required gain is the difference between 300 and the ETS, divided by the number of years a student has to become proficient. To continue our example above, the student's ETS is 86 points short of 300, and the student has four years to become proficient. Thus, the annual required gain is  $86/4$ , or 21.5 points. Thus, the target for this student in grade 4 would be  $214 + 21.5$ , or 236; for grade 5, the target would be  $214 + 2 * 21.5$ , or 257; for grade 6, the target would be  $214 + 3 * 21.5$ , or 279. For grade 7, the fourth year the student is in the system, the target would be 300—and it would remain at that value for as long as the student remains in the accountability system.

Note that all these targets are established in the base year, and remain the targets regardless of the student's performance (up or down) in subsequent years. Thus, continuing our example, our student must have a scaled score of 257 or higher on the grade 5 SBA to count positively for his/her school; it is immaterial what score the student attained in grade 4.

If a student's base year is in a grade other than grade 3, the calculations are identical; the only changes are that the grades for the targets are appropriately incremented, and the divisor (the number of years the student has to become proficient) is a value less than 4 if the student's base year is grade 7 or higher.

Thus, for example, if a student's base year is grade 6, and he/she has an observed scaled score of 200 on the mathematics SBA, then the ETS for the student's base year is  $337 + .92 * (200 - 337)$ , or 211. The annual required gain in this case is  $(300 - 211)/4$ , or 22.25. Thus, the student's target for grade 7 is 234, for grade 8 is 256, and for grade 9 is 278. For grade 10, the fourth year the student is in the system, the target is 300.

If a student's base year is grade 8, and he/she has an observed scaled score of 200 in the mathematics SBA, then the ETS for the student's base year is  $331 + .92 * (200 - 331)$ , or 210. Since the student has only two years until grade 10, the annual required gain is 45. The student's target score for grade 9 is 255, and for grade 10, it is 300.

Letter, Dr. Kari Briggs

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In addition to the meeting, Alaska was notified on May 31, 2007, that reporting to parents and students the individual student status plus growth targets will not be required. Alaska will report the status plus growth calculation for each school and all subgroups above the minimum subgroup size, and each district and all subgroups above the minimum subgroup size.

Finally, as part of a pilot program, Alaska desires the ability to analyze the model proposed, and make reasonable adjustments each year that refine and better reflect the growth calculation. Alaska understands that any adjustments would have to meet the approval of the U.S. Department of Education to be implemented as part of the AYP calculation.

Sincerely,

A handwritten signature in cursive script that reads "Roger Sampson".

Roger Sampson  
Commissioner

cc: Les Morse  
Dr. Catherine Freeman