

January 7, 2009

Kerri L. Briggs, Ph.D.
Assistant Secretary
Office of Elementary and Secondary Education
United States Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-6100

Dear Dr. Briggs:

The Texas Education Agency (TEA) appreciates notification that the Texas Projection Measure (TPM) was approved with conditions by the United States Department of Education (USDE). TEA looks forward to working with USDE to ensure Texas is able to include the TPM in determining whether schools, school districts, and the state are making Adequate Yearly Progress (AYP) under the *No Child Left Behind Act of 2001 (NCLB)* for the 2008-2009 school year.

The attachment outlines TEA's understanding of the conditions that need to be met and TEA's responses to these conditions.

Texas' use of the growth model in AYP in the 2008-2009 school year is contingent on first meeting the requirements in the Memorandum of Agreement (MOA) with USDE concerning the assessment for students with severe cognitive disabilities, i.e., TAKS-Alternate (TAKS-Alt). Therefore, TEA staff has communicated with Grace Ross, Texas' assessment contact at USDE, about revising the timelines of the MOA so that Texas can submit the majority of the required TAKS-Alt information earlier than the current timeline in the MOA. This would allow the peer review of TAKS-Alt to occur early enough so that Texas could potentially get approval of its assessment system in sufficient time prior to August 2009, allowing Texas to use the Texas Projection Measure in 2009 AYP. In the conference call on December 12, 2008, Grace Ross expressed support for Texas accelerating the MOA timelines and scheduling a rolling peer review for TAKS-Alt earlier than agreed to under the conditions of the original MOA.

Implementation of the Texas Projection Measure is a high priority for Texas, and reporting student growth beginning in 2009 will provide valuable information to districts, campuses, and parents about student performance. Additionally, use of the Texas Projection Measure will strengthen Texas' federal and state accountability systems and, in particular, will enhance the ability to close achievement gaps based on race, ethnicity, socio-economic and special program status.

Thank you for reviewing Texas' plans for implementing the conditions for approval of the TPM. If Texas' response to these conditions is acceptable, then Texas will revise the original proposal submitted on October 15, 2008 to reflect the additional information in the response to clarifying questions and to the conditions described in this letter. Please direct questions to Criss Cloudt, Associate Commissioner for Assessment, Accountability, and Data Quality at criss.cloudt@tea.state.tx.us, or 512-463-9701.

Sincerely,

A handwritten signature in black ink that reads "Robert P. Scott". The signature is written in a cursive, slightly slanted style.

Robert Scott
Commissioner of Education

rs/cc

cc: Lizzette Reynolds, Deputy Commissioner, Statewide Policy and Programs
Criss Cloudt, Associate Commissioner, Assessment, Accountability, and Data Quality
Gloria Zyskowski, Deputy Associate Commissioner, Student Assessment Division
Shannon Housson, Director, Performance Reporting Division

Conditions for Implementing the Texas Projection Measure¹

1. Clarify that the use of school means refers to calculation of means for each school (rather than student group means for the state).

Response: The school means to be used in the projection equations are the means for each individual school. All students in a campus with a valid score in the subject (e.g., reading), and grade are used to calculate the means used in the projection equations for that school.

2. Provide evidence that supports the use of reading in predicting mathematics (and mathematics in predicting reading).

Response: In the proposal Texas submitted on October 15, 2008, projections for reading and for mathematics were made using four predictors (i.e., student scale scores in reading, student scale scores in mathematics, mean campus scale scores in reading, and mean campus scale scores in mathematics). Further analyses, in part prompted by USDE peer review comments, have indicated that correlations between the campus mean scale scores in the two subject areas are large enough (approximately 0.80) so that including only the campus mean scale score in the projection subject sufficiently accounts for campus-level variance. Therefore, Texas plans to project using only three predictors as summarized in Table 1 below.

Table 1. Predictors Used in the Texas Projection Measure

Projection Subject	Predictors Used
<i>Reading</i>	<ol style="list-style-type: none"> 1. <i>Student Reading Scale Score</i> 2. <i>Student Mathematics Scale Score</i> 3. <i>Mean Campus Scale Score in Reading</i>
<i>Mathematics</i>	<ol style="list-style-type: none"> 1. <i>Student Mathematics Scale Score</i> 2. <i>Student Reading Scale Score</i> 3. <i>Mean Campus Scale Score in Mathematics</i>

Results from analyses indicate that use of student scale scores in a subject other than the subject to which the projection is made (e.g., including mathematics in reading projections) enhances projection accuracy in the Texas Projection Measure. In particular, three sources of evidence were collected with each of two cohorts to support use of the other subject as a predictor. The two cohorts in the analyses included grade 7 students in 2007 projected to grade 8 in 2008, and grade 10 students in 2007 projected to grade 11 in 2008. For each of the cohorts, projections for reading/English language arts and mathematics were evaluated. The first source of information included the percent of variance in the projected score accounted for by adding students' scale scores in the other subject. The second source of evidence included the statistical significance of the other subject predictor. The third source of evidence included the projection accuracy for these cohorts when student scale scores in the other subject were included compared with projections in which the student scale scores in the other subject were not included.

¹ Texas must first meet the requirements in the Memorandum of Agreement (MOA) before being approved to use the Texas Projection Measure in AYP determinations.

Projection accuracy was calculated separately for students projected to meet the standard (Met) and for students projected to not meet the standard (DNM). Note that the number of students projected DNM in reading represents less than 5% of all students; in mathematics the number projected DNM represents between 10% and 15% of all students. Table 2 provides data for these three sources of evidence with respect to the use of the other-subject predictor. Results support the contention that use of the other subject predictor adds to the predictability, that the other subject predictor is statistically significant, and the projection accuracy with the other subject predictor tended to be slightly greater overall than without the other subject predictor.

Table 2. Evidence Supporting the Use of the Other-Subject Predictor

Grade (2007)	Projection Grade (2008)	Projection Subject	Percent of Variance Accounted for by Other Subject*	Statistical Significance of Other Subject Predictor (p-value)	Projection Accuracy Without Other Subject Predictor		Projection Accuracy With Other Subject Predictor	
					Met	DNM	Met	DNM
7	8	Reading	2.7%	< .0001	93.61%	1.93%	93.05%	2.05%
7	8	Mathematics	0.7%	< .0001	71.65%	13.76%	71.86%	13.79%
10	11	English Language Arts	5.2%	< .0001	92.54%	1.57%	91.94%	1.89%
10	11	Mathematics	1.0%	< .0001	76.79%	11.16%	76.91%	11.18%

Note. *Percent of variance accounted for by student scale scores in the other subject was calculated by making two projections, once with the other subject included and once without the other subject. The difference in r-squared indicated the variance accounted for by student scale scores in the other subject. Met=the percent of students projected to meet the standard in 2008 who actually did meet the standard in 2008. DNM= the percent of students projected not to meet the standard (Did Not Meet Standard) in 2008 who actually did not meet the standard in 2008.

Furthermore, annual evaluations of the Texas Projection Measure will include this type of analysis, so Texas can monitor whether the increased projection accuracy from the other subject predictor continues to be supported by empirical evidence.

4. Clarify when the growth model projections will be recalculated.

Response: Projections will be recalculated each year and for each student. The amount of time to reach proficiency (i.e., Met Standard) will not be extended, however. Annual recalculations allow Texas to update growth trajectories (based on the recalculated scores) to more precisely identify whether students are on track to reach proficiency within the initially identified timeframe.

5. Provide information on how end-of-course (EOC) assessments will be incorporated into the growth model.

Response: Table 3 illustrates the timeline for Texas' implementation of EOC assessments, phase-out of TAKS at high school, and the year in which EOC assessments will be used for graduation requirements for students entering grade 9. Since 2011-2012 will be the last school year for administration of the TAKS grade 10 assessment, Texas will likely incorporate performance on Algebra I and English II assessments into the AYP calculations for campuses, districts, the State, and required AYP reporting groups starting in 2012-2013.

Table 3. Texas EOC Assessment Implementation Schedule

EOC Assessment	Spring 2007	Spring 2008	Spring 2009	Spring 2010	Spring 2011	Spring 2012**	Spring 2013
Algebra I	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
Geometry	Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
Biology	Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
Chemistry		Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
US History		Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
Physics			Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
World Geography			Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
English I				Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒
Algebra II				Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒
English II					Field Test	Operational	⇒ ⇒ ⇒
World History					Field Test	Operational	⇒ ⇒ ⇒
English III						Field Test	Operational
Final TAKS Administration*					Grade 9	Grade 10	Grade 11, Exit Level

Note. *TAKS exit-level administrations will continue for out-of-school testers. **Spring 2012 is the first time that EOC assessments will be used for graduation requirements for students in grade 9.

When the EOC assessments are used in AYP calculations, grade 8 students and students taking the Algebra I and English II EOC assessments will likely be impacted by use of the Texas Projection Measure.

For grade 8 students, the Texas Projection Measure currently projects performance to grade 11 TAKS. When the EOC assessments will be used in AYP calculations, it is likely that students in grade 8 will be projected to the courses most commonly taken in grade 11—English III and Algebra II. Projections for grade 8 students will likely be made using student scale scores in TAKS grade 8 reading, student scale scores in TAKS grade 8 mathematics, and campus mean scale scores in the TAKS projection subject (reading for English III and mathematics for Algebra II).

For students taking English II and Algebra I, the subjects currently planned for use in AYP calculations, projections will also likely be made to English III and Algebra II. These projections will be used in AYP calculations in the same way that projections have been proposed to be used with TAKS. Projections to English III will be made using scale scores in two subjects at the student level and campus mean scale scores in English II. The two subjects that will likely be used as student-level predictors will include English II and one other subject to be determined empirically. Projections to Algebra II will likely be made using scale scores in two subjects at the student level and campus mean scale scores in Algebra I. Once data are available from administrations that count for students'

graduation, student-level scale scores used in the projection equations in addition to English II and Algebra I will be determined based on scores that provide the highest level of predictability.

Regarding the planned timeline for implementing projections with EOC assessments, projection equations are developed using data on students in the grades from which and to which the projections are made. Then, projections will be implemented the year following the equation development. Because the projection equations will be used for students taking the EOC assessments for graduation purposes, Texas plans to develop the projection equations with student data from administrations with the same high stakes. Based on the schedule in Table 3, the first year in which students will take operational administrations of Algebra II and English III for graduation is 2013-2014. In 2013-2014 student data from Algebra II and English III will be available along with these students' history data in grade 8 reading, grade 8 mathematics, Algebra I, and English II. Therefore, equations for the following four projections can be developed for the first time in 2013-2014 and implemented for the first time in 2014-2015:

- Grade 8 projections to English III
- Grade 8 projections to Algebra II
- English II projections to English III
- Algebra I projections to Algebra II

6. Provide data showing prediction accuracy of projections.

Response: Projection accuracy overall and for students in AYP reporting groups was provided in Appendix A of the November 12, 2008, response. Appendix A is attached to this document as well. Note that these results were from the model that included campus means in both subjects. Since the campus mean in the other subject was found to add so little to the prediction, results with the model with only the campus mean in the projection subject are expected to be almost exactly like the ones presented in Appendix A.

Reading results indicated that the percents of students who were accurately projected to a reading performance level exceeded 90% for students overall and for almost all groups, with the percents for a few groups that were lower, but no lower than 70%. This high level of projection accuracy was found when projections were made over one, two, and three years. Mathematics results indicated that the percents of students who were accurately projected to a mathematics performance level were slightly lower than in reading, but still high. The percents of accurate projections typically exceeded 80% for students overall and for all groups. In some cases, the percents were slightly below 70%. Similar levels of projection accuracy were found when projections were made over one, two, and three years.

The two groups with the slightly lower projection accuracy were LEP students and students in special education (SPED). For the LEP group, students more often underperformed in reading assessments and over performed in mathematics assessments relative to their projections. Furthermore, projection accuracy was higher when the number of years for the projection was lower. For the SPED group, students tended to perform better than their projections in both subjects. Similar to the LEP group, projection accuracy for the SPED group was higher when the number of years for the projection was lower. Given the recent changes in testing requirements for LEP students

and students in special education, Texas anticipates that the students in these groups taking the TAKS will stabilize more than in the past couple of years and the stabilization will result in higher projection accuracy for these groups. Texas will conduct annual evaluations of the Texas Projection Measure, which will include this type of analysis. This annual evaluation will allow Texas to monitor projection accuracy for all students, for student groups, for different subjects, and for different numbers of projection years.

7. Clarify whether Texas intends to apply a confidence interval to the growth model calculations for small schools.

Response: Currently Texas uses confidence intervals in AYP calculations only for special analysis for small schools. Texas will discontinue use of confidence intervals in AYP calculations for small schools. The AYP impact data provided with the November 12, 2008 response will be impacted by the discontinuation of the use of confidence intervals, likely decreasing the number of campuses and districts projected to meet AYP.

8. Clarify whether Texas intends to use uniform averaging (aggregating data in the performance measure calculations across two years to increase number of observations) of growth model calculations for small schools.

Response: Currently Texas uses uniform averaging in AYP performance measure calculations only for special analysis for small schools. Texas will discontinue use of uniform averaging in the AYP performance measure calculations for small schools. The AYP impact data provided with the November 12, 2008 response will be impacted by the discontinuation of the use of confidence intervals, likely decreasing the number of campuses and districts projected to meet AYP.

Appendix A

Grade and Subject (Grade Predicted From and To)	Group	N	Total Prediction Accuracy		Accurate Classification		Misclassification	
			Percent Accurate	Percent Inaccurate	Did Not Meet Standard	Met Standard	Met Standard When Predicted Did Not Meet Standard	Did Not Meet Standard When Predicted Met Standard
Grade 7 Reading (7 to 8)	Total	271344	96%	4%	2%	94%	1%	3%
	Ethnicity							
	Native American	863	97%	3%	1%	97%	1%	2%
	Asian	9499	99%	1%	< 1%	98%	< 1%	1%
	African American	36820	93%	7%	3%	91%	2%	5%
	Hispanic	119213	94%	6%	2%	92%	1%	4%
	White	104902	98%	2%	< 1%	98%	< 1%	2%
	Economically Disadvantaged							
	No	134900	98%	2%	1%	97%	< 1%	2%
	Yes	136444	94%	6%	3%	91%	2%	5%
	Limited English Proficiency							
	No	257982	96%	4%	1%	95%	1%	3%
	Yes	13362	81%	19%	14%	67%	6%	13%
	Special Education							
	No	263245	96%	4%	2%	94%	1%	3%
	Yes	7908	89%	11%	5%	85%	3%	8%

Grade and Subject (Grade Predicted From and To)	Group	N	Total Prediction Accuracy		Accurate Classification		Misclassification	
			Percent Accurate	Percent Inaccurate	Did Not Meet Standard	Met Standard	Met Standard When Predicted Did Not Meet Standard	Did Not Meet Standard When Predicted Met Standard
Grade 7 Mathematics (7 to 8)	Total	263430	86%	14%	14%	72%	8%	6%
	Ethnicity							
	Native American	830	86%	14%	8%	78%	7%	7%
	Asian	9267	95%	5%	3%	92%	3%	2%
	African American	35551	80%	20%	24%	56%	11%	8%
	Hispanic	115280	82%	18%	19%	64%	11%	7%
	White	102461	90%	10%	6%	84%	5%	5%
	Economically Disadvantaged							
	No	131708	90%	10%	7%	83%	5%	5%
	Yes	131722	81%	19%	20%	61%	11%	7%
	Limited English Proficiency							
	No	250698	86%	14%	12%	74%	8%	6%
	Yes	12732	75%	25%	41%	34%	19%	6%
	Special Education							
	No	255716	86%	14%	13%	72%	8%	6%
	Yes	7537	79%	21%	30%	49%	14%	8%

Grade and Subject (Grade Predicted From and To)	Group	N	Total Prediction Accuracy		Accurate Classification		Misclassification	
			Percent Accurate	Percent Inaccurate	Did Not Meet Standard	Met Standard	Met Standard When Predicted Did Not Meet Standard	Did Not Meet Standard When Predicted Met Standard
Grade 6 Reading (6 to 8)	Total	255654	95%	5%	1%	94%	2%	3%
	Ethnicity							
	Native American	808	97%	3%	1%	96%	1%	1%
	Asian	8523	99%	1%	< 1%	98%	< 1%	1%
	African American	34341	93%	7%	2%	90%	2%	5%
	Hispanic	112808	93%	7%	2%	91%	2%	4%
	White	99153	97%	3%	< 1%	97%	1%	2%
	Economically Disadvantaged							
	No	130502	97%	3%	< 1%	97%	1%	2%
	Yes	125152	93%	7%	2%	90%	2%	5%
	Limited English Proficiency							
	No	246667	96%	4%	1%	95%	1%	3%
	Yes	8987	72%	28%	17%	55%	11%	16%
	Special Education							
	No	248402	96%	4%	1%	94%	1%	3%
	Yes	7179	77%	23%	8%	69%	15%	7%

Grade and Subject (Grade Predicted From and To)	Group	N	Total Prediction Accuracy		Accurate Classification		Misclassification	
			Percent Accurate	Percent Inaccurate	Did Not Meet Standard	Met Standard	Met Standard When Predicted Did Not Meet Standard	Did Not Meet Standard When Predicted Met Standard
Grade 6 Mathematics (6 to 8)	Total	256043	84%	16%	12%	72%	8%	8%
	Ethnicity							
	Native American	814	84%	16%	9%	75%	8%	8%
	Asian	8567	94%	6%	2%	92%	3%	3%
	African American	34218	79%	21%	21%	58%	10%	11%
	Hispanic	113271	81%	19%	17%	64%	10%	9%
	White	99153	90%	10%	5%	85%	4%	6%
	Economically Disadvantaged							
	No	130512	89%	11%	6%	83%	5%	6%
	Yes	125531	79%	21%	18%	61%	11%	10%
	Limited English Proficiency							
	No	246563	85%	15%	11%	74%	7%	8%
	Yes	9480	70%	30%	49%	22%	23%	7%
	Special Education							
	No	248099	85%	15%	11%	74%	7%	8%
	Yes	7870	68%	32%	36%	32%	25%	8%

Grade and Subject (Grade Predicted From and To)	Group	N	Total Prediction Accuracy		Accurate Classification		Misclassification	
			Percent Accurate	Percent Inaccurate	Did Not Meet Standard	Met Standard	Met Standard When Predicted Did Not Meet Standard	Did Not Meet Standard When Predicted Met Standard
Grade 5 Reading (5 to 8)	Total	244053	95%	5%	1%	94%	2%	3%
	Ethnicity							
	Native American	758	97%	3%	1%	97%	1%	2%
	Asian	7724	99%	1%	< 1%	99%	< 1%	1%
	African American	32226	92%	8%	2%	90%	3%	5%
	Hispanic	108851	93%	7%	2%	91%	2%	5%
	White	94475	97%	3%	<1%	97%	1%	2%
	Economically Disadvantaged							
	No	124267	97%	3%	< 1%	97%	1%	2%
	Yes	119786	92%	8%	2%	90%	3%	5%
	Limited English Proficiency							
	No	235949	96%	4%	1%	95%	1%	3%
	Yes	8104	71%	29%	15%	57%	10%	19%
	Special Education							
	No	236746	96%	4%	1%	94%	1%	3%
	Yes	7238	77%	23%	10%	67%	13%	10%

Grade and Subject (Grade Predicted From and To)	Group	N	Total Prediction Accuracy		Accurate Classification		Misclassification	
			Percent Accurate	Percent Inaccurate	Did Not Meet Standard	Met Standard	Met Standard When Predicted Did Not Meet Standard	Did Not Meet Standard When Predicted Met Standard
Grade 5 Mathematics (5 to 8)	Total	245352	82%	18%	13%	70%	10%	8%
	Ethnicity							
	Native American	770	83%	17%	9%	75%	9%	8%
	Asian	7777	93%	7%	3%	90%	5%	2%
	African American	32171	75%	25%	22%	53%	15%	10%
	Hispanic	109524	78%	22%	17%	61%	13%	9%
	White	95091	89%	11%	5%	84%	6%	6%
	Economically Disadvantaged							
	No	124934	88%	12%	6%	81%	6%	6%
	Yes	120418	77%	23%	19%	58%	14%	9%
	Limited English Proficiency							
	No	236871	83%	17%	11%	72%	10%	8%
	Yes	8481	66%	34%	48%	18%	27%	7%
	Special Education							
	No	237327	73%	17%	12%	71%	10%	8%
	Yes	7952	68%	32%	40%	28%	25%	8%