

Summary of Texas Projection Measure (TPM) Approved by the United States Department of Education (USDE)

January 8, 2009

1. The 2009 Texas Projection Measure (TPM) for TAKS, TAKS (Accommodated), and linguistically accommodated versions of TAKS is a multi-level regression-based projection model. The measure projects student performance separately in reading/English language arts and mathematics in the next high-stakes grade (defined by the Texas legislation as grades 5, 8, and 11) using students' current year scale scores in both reading/English language arts and mathematics and average campus scale scores in the projection subject (i.e., reading campus mean for reading projections and mathematics campus mean for mathematics projections).

Current and Projection Grades for TPM

Current Grade	Projection Grade
3	5
4	5
5	8
6	8
7	8
8	11
9	11
10	11
11	N/A

2. Projection equations are developed the year before they are applied, so that the formulas can be established and shared across the state before they are used in Adequate Yearly Progress (AYP) calculations. For example, projection equations developed in 2008 will be applied in 2009 to project student performance. The projection equations will be updated each year after operational testing and will be published before their use the next spring.
3. A student who has failed TAKS/TAKS (Accommodated) in the current year, but is projected to be at or above proficiency in the projection grade, is counted as proficient in the AYP calculation in addition to those students who achieved proficiency in the current year.
4. Projections will be made for almost all students with test scores each year. Texas will not project student performance only in the rare instances when students take different assessments for different subjects and/or when data are insufficient to develop projection equations.
5. The same projection approach will be used for English testers and Spanish testers, but the projection equations will be unique to these student populations.
6. The decision to use only current year reading/English language arts and mathematics scores in the projection equations was made to balance transparency and validity, maintain current reporting timelines, and maximize the numbers of students that will receive projections. By

using current year scores in the projection equations, Texas is able to publish projection equations before they are applied, making the growth model fully transparent to decision makers. In addition, this allows a student's projection measure to be reported at the same time Confidential Student Reports (CSRs) are currently received by school districts. Further analyses conducted by Texas indicated that a projection measure using only current year scores produced similar accuracy values when compared with a projection model using all student scores in all subjects across four years. Finally, by using current year scores in the projections, the numbers of students with sufficient information for a projection is greater than if student scores from past years are needed for making projections.

7. Once sufficient data are available for the TAKS-Modified (TAKS-M) alternate assessments, Texas will implement projection equations like those used with TAKS/TAKS (Accommodated) assessments. However, to develop the projection equations for this assessment, TAKS-M data for students in both the current and projection grades need to be available. See the table below summarizing the phase-in for the TAKS-M projection equations.

Schedule for Use of TPM with TAKS-M

Current Grade	Projection Grade	Year Data Available on First Cohort	First Year Equations Applied
3	5	2010	2011
4	5	2009	2010
5	8	2011	2012
6	8	2010	2011
7	8	2009	2010
8	11	2011	2012
9	11	2010	2011
10	11	2009	2010
11	N/A	N/A	N/A

8. For TAKS-Alternate (TAKS-Alt), Texas will implement a transition table approach to growth. This will require that Texas subdivide the three proficiency levels (Did Not Meet Standard, Met Standard, and Commended Performance). Once the performance levels are subdivided, Texas will develop a descriptive transition table that describes students' progress relative to their progress expectations. Finally, Texas will set progress targets that require students below proficiency to reach proficiency by the next high-stakes grade. The growth model for TAKS-Alt will be implemented for the first time in 2010, after Texas determines the academic achievement standards on all grades and subjects in spring 2009. Since this type of growth model does not require projection equations, this model will be implemented for all grades in reading/English language arts and mathematics in 2010. The table below provides an example of a progress target table showing transitions that TAKS-Alt students who did not meet the standard would be required to make in order to meet progress targets each year. These progress requirements would result in students' meeting the standard by the next high stakes grade.

Example Growth Target Table for TAKS-Alt

Number of Years from Current Grade to Projection Grade	Previous Performance Level		Number of Sub-Levels Improvement Needed to Achieve Proficiency	Number of Years to Achieve Proficiency	Progress Target
	Level	Sublevel			
1 year	Did Not Meet Standard	Low	3	1	Students must increase 3 sub-levels
		Middle	2	1	Students must increase 2 sub-levels
		High	1	1	Students must increase 1 sub-levels
2 years	Did Not Meet Standard	Low	3	2	Students must increase 2 sub-levels one year and 1 sub-level the other.
		Middle	2	2	Students must increase 1 sub-level each year.
		High	1	2	Students must increase 1 sub-level either year.
3 years	Did Not Meet Standard	Low	3	3	Students must increase 1 sub-level each year.
		Middle	2	3	Students must increase 1 sub-level in 2 of the three years.
		High	1	3	Students must increase 1 sub-level in one of the three years.

9. Texas chose TPM because it is a good fit for the current assessment system as well as future high school end-of-course (EOC) assessments. It projects student performance in grades 5, 8, and 11, grades that are already part of the current high stakes structure in the Texas assessment program. This measure balances accuracy and transparency. By using prior-year equations and publishing them in advance of their application, Texas will maintain the use of transparent calculations for high stakes accountability. This measure also builds on many of the features of the regression-based model that Dallas ISD has been implementing since 1992 and allows Texas to take advantage of lessons learned by Dallas ISD through long-term implementation of a regression-based projection model using Texas' state-required assessments. Unlike the Dallas ISD model, however, and to meet federal requirements, the projection equations do not include student group or school characteristics and the targets for performance level changes planned for TAKS-Alt growth will not be affected by group or school characteristics.
10. The measure is based on the expectation that all students will become proficient by 2013-2014 or will be projected to become proficient within no more than three years of 2013-2014.
11. For state purposes, projections and growth reporting for reading and mathematics would mirror the AYP growth proposal submitted to USDE. However, state reporting of growth

will be expanded to include science, social studies, and writing. State decisions concerning the use of projections in state accountability in 2009 will follow the current decision-making process: review and recommendations by accountability advisory committees in early 2009 with final decisions by the commissioner of education in mid-April 2009.

12. Though Texas will use only reading and mathematics scores in projection equations for 2009 AYP calculations, future analyses will explore whether adding science and social studies scores as predictors of mathematics and reading/ELA performance would enhance predictability enough to justify the added complexity in the formulas for 2010 and beyond. Adding additional predictors in content areas dissimilar to the content area for which the projection is being made is unlikely to significantly increase the precision of these estimates. However, the increased precision may impact some student groups differentially and may help the state focus resources on the additional subject areas.
13. Texas estimated the impact of including a projection measure in AYP calculations. The estimates involved using the projection for all students taking TAKS, TAKS (Accommodated), or a linguistically accommodated version of TAKS in 2008 and recalculating 2008 AYP. Preliminary 2008 results indicated that without including the projection measure, 66% of districts and 75% of campuses met AYP in 2008. When the projection measure was added to the AYP calculations, 77% of districts and 80% of campuses would have met AYP. The impact of adding the projection equations in 2008 was that 136 additional districts (11%) and 411 additional campuses (5%) would have met 2008 AYP due to the projection measure.
14. The TPM was approved by USDE contingent on: (1) the state receiving final approval from the Department of Education on TAKS-Alternate, a test for students with severe cognitive disabilities, and (2) the state discontinuing the use of confidence intervals and uniform averaging in the AYP performance measure calculations for small schools.