

Standard Setting Recommendations – Grade 2 and Grades 3-8 TNReady

Standard setting is a qualitative review of content standards conducted with educators who are content-area experts. In order to complete the reporting of achievement data, it is necessary to develop cut scores that will be used to assign students to performance categories on the TNReady assessments.

These cut-scores are the basis of a criterion-referenced assessment, in which student performance is judged based on the expectations determined by content experts who are educators in Tennessee. During the week of July 10, 2017, panels of Tennessee educators convened in Nashville, TN to recommended cut scores for the TNReady assessments in grade 2 and grades 3-8.

In order to develop the cut score recommendations, the *bookmark* standard setting process was followed (Lewis, Mitzel, Mercado, & Schulz, 2012). The Bookmark Method is a three-round standard setting process that requires panelists to independently examine test items and place bookmarks at the points at which they consider students to have demonstrated sufficient knowledge and skills at each performance level. The Bookmark Method is an item-mapping procedure that is one of the most widely used standard-setting methods in statewide assessments. This method has been used in Tennessee for more than a decade.

After the standard setting process, the department’s staff psychometricians completed additional analysis to perform a quantitative check of the standard setting results. The psychometric team also conducted concordance studies, comparing the 2017 panel recommendations to multiple sources of data to ensure that the recommendations were appropriately rigorous. In addition, department content teams were consulted to provide expert validity checks of the results focused on content progression. This additional analysis and consultation is reflected in the recommended cut scores as appropriate.

Recommended Cut Scores:

All tests have a scale score range from 200-450. The minimum scale score for each content area is 200 (the “cut score” for level 1) and the maximum scale score is 450 (the highest score for level 4).

2017 TNReady ELA TDOE Recommendations								
Grade	Level 1 Below	Level 2 Approaching		Level 3 On Track		Level 4. Mastered		Level 3+4
	%	Cut	%	Cut	%	Cut	%	%
2	24.5	334	45.1	365	22.8	386	7.6	30.4
3	26.1	322	39.0	359	27.7	391	7.1	34.8
4	19.2	299	44.3	343	31.7	379	4.8	36.5
5	24.9	296	44.4	333	25.8	371	4.9	30.7
6	19.6	303	46.8	342	27.5	377	6.1	33.6
7	21.3	305	43.5	341	30.5	374	4.7	35.1
8	18.0	298	51.5	346	25.0	384	5.5	30.5

2017 TNReady Mathematics TDOE Recommendations								
Grade	Level 1 Below	Level 2 Approaching		Level 3 On Track		Level 4 Mastered		Level 3+4
	%	Cut	%	Cut	%	Cut	%	%
2	25.6	325	32.6	355	27.7	384	14.1	41.8
3	24.1	305	35.2	341	27.2	371	13.6	40.7
4	25.2	295	33.9	330	31.8	373	9.0	40.9
5	27.3	300	34.8	339	27.3	374	10.5	37.8
6	25.0	307	36.1	340	33.1	382	5.8	38.9
7	24.6	295	44.0	339	27.0	379	4.4	31.4
8	34.6	296	34.5	330	25.1	367	5.8	30.9

Standard Setting Recommendations – Grade 2 TCAP-Alt, Grades 3-8 TCAP-Alt Social Studies, Grades 3-8 TCAP-Alt Science and High School TCAP-Alt Biology

Grade 2 TCAP-Alt, grades 3-8 TCAP-Alt social studies, grades 3-8 TCAP-Alt science, and high school TCAP-Alt Biology standard setting included mix of teachers with general education and special education licenses. All panels included a teacher or administrator with special education experience.

After standard setting, the department’s staff psychometricians, completed additional analysis in terms of concordance studies to perform a quantitative check of the standard setting results. In addition, the department’s content teams are consulted as an expert validity check of the results focused on content progression. This additional analysis and consultation is reflected in the recommended cut scores as appropriate.

It should be noted that the ALT assessment has different characteristics than TNReady. There are a smaller number of test takers for the ALT assessment: less than 1,000 students participate in the ALT assessment per grade level compared to 60,000 – 70,000 students who participate in TNReady. This means that variation among cohorts may be more significant, and there may be wider swings in the percent proficient between grades. For these reasons, there is greater variation in performance across grade levels.

Due to the smaller number of questions and higher level of variance, TCAP-Alt has only three performance levels – 1, 2, and 3. Levels 2 and 3 are considered proficient. The standard setting recommendations were compared with MSAA results for the same group of students to ensure the recommendations that the recommendations were appropriately rigorous.

Recommended Cut Scores:

2017 TCAP-Alt Social Studies TDOE Recommendations						
Grade	Level 1	Level 2		Level 3		Level 2+3
	%	Cut	%	Cut	%	%
3	48.4	312	37.9	350	13.7	51.6
4	62.7	334	31.7	388	5.6	37.3
5	50.9	327	35.7	376	13.4	49.1
6	59.9	337	20.1	367	20.0	40.1
7	44.4	323	39.7	368	15.9	55.6
8	47.0	319	40.9	365	12.1	53.0

2017 TCAP-Alt Science TDOE Recommendations						
Grade	Level 1	Level 2		Level 3		Level 2+3
	%	Cut	%	Cut	%	%
3	47.1	325	35.4	366	17.5	52.9
4	47.5	332	39.0	386	13.5	52.5
5	41.4	316	48.6	366	10.0	58.6
6	62.9	334	24.3	364	12.8	37.1
7	41.0	317	51.3	372	7.7	59.0
8	38.2	310	46.4	347	15.4	61.8
Biology	44.2	336	38.2	340	17.6	55.8

2017 TCAP-Alt Grade 2 TDOE Recommendations						
Subject	Level 1	Level 2		Level 3		Level 2+3
	%	Cut	%	Cut	%	%
ELA	44.6	309	17.9	328	37.5	55.4
Math	42.6	325	38.8	366	18.6	57.4