

## **Accountability System Development for 2017-18 and Beyond Accountability Technical Advisory Committee (ATAC)**

### **Implementation of House Bill 2804**

This document provides both a review of and topics for discussion regarding implementation of statutory requirements in House Bill 2804 (HB 2804), 84<sup>th</sup> Texas Legislature, for the 2017–18 school year and beyond.

#### **Review of HB 2804 Domain Requirements**

See the *Summary of HB 2804* and *HB 2804 Domain Indicators* documents for a general overview of HB 2804 domain requirements and indicators.

#### **HB 2804 Domain I: Student Achievement Score Model Options**

HB 2804 requires Domain I to include STAAR assessment results at both the satisfactory and college-readiness standards. For purposes of modeling, data for Domain I is based on 2015 STAAR assessment results from the federal system safeguard reports released in October 2015. The data are constructed at the test level based on the following caveats:

- Includes the 2015 accountability universe of campuses and districts
- Includes grade 3–8 mathematics
- Includes STAAR A test results at phase-in 1 level II and final level II standards
- Includes STAAR Alternate 2 test results at final level II and advanced level III standards
- Includes ELL students' test results via the ELL progress measure and the final level II standard

For modeling purposes, two options are presented for calculating Domain I.

**Option 1.** Use same methodology in the current accountability system for Index 2 in which weighted scores are calculated based on students' level of performance.

One point is given for each percentage of assessment results that are at or above the following:

- Phase-in 1 level II
- ELL progress measure expectations.
- Final level II standard (STAAR Alternate 2 only).

One point is given for each percentage of assessment results that are at the following standard:

- Final level II (for both ELLs and non-ELLs).
- Level III advanced standard (STAAR Alternate 2 only)

Cumulative performance (*Satisfactory Standard and College Readiness*) for all subjects contributes from 0 to 200 points to the groups consisting of all students and each student group that meets minimum size criteria. The maximum number of possible points depends on campus type, student population, and demographics. Option 1 is calculated by dividing the total points (cumulative performance) by the maximum number of possible points, resulting in an overall score of 0 to 100 for all campuses and districts.

**Option 1 Sample Campus: Similar calculation and methodology as Index 2**

Weighted Student Achievement Rate: All Subjects	All	Afric. Amer.	Hispanic	White	Amer. Indian	Asian	Pacific Islander	Two or More Races	Econ Disadv	Special Ed	ELL	Total Points	Max Points
Number of Tests	673		307	329					389	76	33		
# at Satisfactory Standard or above	462		174	264					251	19	12		
# at College Readiness	213		58	148					95	6	2		
% at Satisfactory Standard or above	69%		57%	80%					65%	25%	36%		
% at College Readiness	32%		19%	45%					24%	8%	6%		
<b>All Subjects Weighted Student Achievement Rate</b>	<b>101</b>		<b>76</b>	<b>125</b>					<b>89</b>	<b>33</b>	<b>42</b>	<b>466</b>	<b>1200</b>
<b>Total</b>												<b>466</b>	<b>1200</b>
<b>Domain I Score (total points divided by maximum points)</b>												<b>39</b>	

**Option 2.** Use same methodology in the current accountability system for Index 4 in which component scores are derived from STAAR assessment scores at the satisfactory and college readiness standards. An overall Domain I score is calculated by weighting scores for satisfactory and college readiness standards. Three weighting options were calculated:

- Option 2a – 75 percent satisfactory standard and 25 percent college readiness.
- Option 2b – 50 percent satisfactory standard and 50 percent college readiness.
- Option 2c – 25 percent satisfactory standard and 75 percent college readiness.

## Option 2 Sample Campus: Separated Components Then Weighted Accordingly

Student Achievement Rate: Satisfactory Standard or above All Subjects	All	Afric. Amer.	Hispanic	White	Amer. Indian	Asian	Pacific Islander	Two or More Races	Econ Disadv	Special Ed	ELL	Total Points	Max Points
Number of Tests	673		307	329					389	76	33		
# at Satisfactory Standard or above	462		174	264					251	19	12		
% at Satisfactory Standard or above	69%		57%	80%					65%	25%	36%		
<b>Student Achievement Rate: Satisfactory Standard or above All Subjects</b>	<b>69</b>		<b>57</b>	<b>80</b>					<b>65</b>	<b>25</b>	<b>36</b>	<b>332</b>	<b>600</b>
<b>Satisfactory Standard Score (total points divided by maximum points)</b>												<b>55</b>	

Student Achievement Rate: College Readiness All Subjects	All	Afric. Amer.	Hispanic	White	Amer. Indian	Asian	Pacific Islander	Two or More Races	Econ Disadv	Special Ed	ELL	Total Points	Max Points
Number of Tests	673		307	329					389	76	33		
# at College Readiness	213		58	148					95	6	2		
% at College Readiness	32%		19%	45%					24%	8%	6%		
<b>Student Achievement Rate: College Readiness All Subjects</b>	<b>32</b>		<b>19</b>	<b>45</b>					<b>24</b>	<b>8</b>	<b>6</b>	<b>134</b>	<b>600</b>
<b>College Readiness Score (total points divided by maximum points)</b>												<b>22</b>	

**Option 2a Sample Campus: Overall Score 75 Percent Satisfactory Standard/25 Percent College Readiness Weighting**

Overall Domain 1 Score	Student Achievement Score	Multiply By	Weight of	Total Points
Satisfactory Standard or above	55	X	75%	41.3
College Readiness	22	X	25%	5.5
<b>Domain I: Score</b>				<b>47</b>

**Option 2b Sample Campus: Overall Score 50 Percent Satisfactory Standard/50 Percent College Readiness Weighting**

Overall Domain 1 Score	Student Achievement Score	Multiply By	Weight of	Total Points
Satisfactory Standard or above	55	X	50%	27.5
College Readiness	22	X	50%	11.0
<b>Domain I: Score</b>				<b>39</b>

**Option 2c Sample Campus: Overall Score 25 Percent Satisfactory Standard/75 Percent College Readiness Weighting**

Overall Domain I Score	Student Achievement Score	Multiply By	Weight of	Total Points
Satisfactory Standard or above	55	X	25%	13.8
College Readiness	22	X	75%	16.5
<b>Domain 1: Score</b>				<b>30</b>

**Domain I Student Achievement Score Percentiles by Campus Type**

Grade Type	75/25 5 <sup>th</sup> pctile	75/25 6 <sup>th</sup> pctile	75/25 7 <sup>th</sup> pctile	75/25 8 <sup>th</sup> pctile	75/25 9 <sup>th</sup> pctile	75/25 10 <sup>th</sup> pctile	75/25 25 <sup>th</sup> pctile	75/25 50 <sup>th</sup> pctile	75/25 75 <sup>th</sup> pctile	75/25 95 <sup>th</sup> pctile	75/25 100 <sup>th</sup> pctile
Elementary Schools	40	40	41	42	43	43	50	58	68	81	99
Middle Schools	37	38	38	39	40	41	47	55	65	78	99
High School/K– 12	41	42	43	44	45	46	52	61	70	87	100
All Grade Types	39	40	41	42	42	43	50	58	68	82	100

Grade Type	50/50 5 <sup>th</sup> pctile	50/50 6 <sup>th</sup> pctile	50/50 7 <sup>th</sup> pctile	50/50 8 <sup>th</sup> pctile	50/50 9 <sup>th</sup> pctile	50/50 10 <sup>th</sup> pctile	50/50 25 <sup>th</sup> pctile	50/50 50 <sup>th</sup> pctile	50/50 75 <sup>th</sup> pctile	50/50 95 <sup>th</sup> pctile	50/50 100 <sup>th</sup> pctile
Elementary Schools	31	32	33	34	34	35	41	49	58	74	98
Middle Schools	29	30	31	32	32	33	38	46	56	71	98
High School/K– 12	33	34	34	35	36	37	43	52	62	81	100
All Grade Types	31	32	33	33	34	35	41	49	59	75	100

Grade Type	25/75 5 <sup>th</sup> pctile	25/75 6 <sup>th</sup> pctile	25/75 7 <sup>th</sup> pctile	25/75 8 <sup>th</sup> pctile	25/75 9 <sup>th</sup> pctile	25/75 10 <sup>th</sup> pctile	25/75 25 <sup>th</sup> pctile	25/75 50 <sup>th</sup> pctile	25/75 75 <sup>th</sup> pctile	25/75 95 <sup>th</sup> pctile	25/75 100 <sup>th</sup> pctile
Elementary Schools	24	24	25	25	26	27	32	40	50	67	97
Middle Schools	22	23	23	24	25	25	30	37	47	64	97
High School/K– 12	25	26	26	27	28	28	35	43	54	76	99
All Grade Types	23	24	25	25	26	26	32	40	50	68	99

### HB 2804: A–F Models for Domains

**Matrix Model.** See the report entitled *Comments from Region 10 and TSNAP MATS on A-F System for 2017-18* for further discussion.

**Other Variations of Matrix Model.** Three models follow with variations of the matrix model. Scores used for A–F modeling of Domain 1 are derived from the Option 1 Student Achievement model outlined above. Domain 1 A–F targets for all three models are based on the following range of Domain I scores:

- 68 or more = A (roughly 10 percent of campuses)
- 56– 67 = B (roughly 20 percent of campuses)
- 37– 55 = C (roughly 55 percent of campuses)
- 32– 36 = D (roughly 10 percent of campuses)
- less than 32 = F (roughly 5 percent of campuses)

**Model 1: Combination Model.** The best A–F letter grade is chosen between the overall Domain I target and the Domain I score quartile derived from campus comparison.

Combination Model					
	<b>A (68 or more)</b>	<b>B (56–67)</b>	<b>C (37–55)</b>	<b>D (32–36)</b>	<b>F (less than 32)</b>
<b>Q1</b>	A	B	C	D	F
<b>Q2</b>	A	B	C	D	F
<b>Q3</b>	A	B	C	D	F
<b>Q4</b>	A	B	C	D	F
	↓	↓	↓	↓	↓
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
<b>Q1</b>	A	A	A	A	A
<b>Q2</b>	A	B	B	B	B
<b>Q3</b>	A	B	C	C	C
<b>Q4</b>	A	B	C	D	D/F

Table of Resolved Grade-Combination Model by Domain I Target Grade						
Resolved Grade – Combination Model	Domain I Target Grade					
	A	B	C	D	F	Total
Frequency Percent Row Pct Col Pct						
A	827	827	665	3	0	2322
	11.05	11.05	8.89	0.04	0.00	31.04
	35.62	35.62	28.64	0.13	0.00	
	100.00	52.31	16.39	0.48	0.00	
B	0	754	1260	35	2	2051
	0.00	10.08	16.84	0.47	0.03	27.42
	0.00	36.76	61.43	1.71	0.10	
	0.00	47.69	31.05	5.65	0.51	
C	0	0	2133	142	36	2311
	0.00	0.00	28.51	1.90	0.48	30.89
	0.00	0.00	92.30	6.14	1.56	
	0.00	0.00	52.56	22.94	9.09	
D	0	0	0	439	358	797
	0.00	0.00	0.00	5.87	4.79	10.65
	0.00	0.00	0.00	55.08	44.92	
	0.00	0.00	0.00	70.92	90.40	
Total	827	1581	4058	619	396	7481
	11.05	21.13	54.24	8.27	5.29	100.00

**Model 2: One Letter Grade Bump Model.** The A–F letter grade is chosen by the overall Domain I target. Campuses can “bump” one letter grade if the campus Domain I score is in quartile 1 in relation to its campus comparison group.

One Letter Grade Bump Model					
	<b>A (68 or more)</b>	<b>B (56–67)</b>	<b>C (37–55)</b>	<b>D (32–36)</b>	<b>F (less than 32)</b>
<b>Q1</b>	A	B	C	D	F
<b>Q2</b>	A	B	C	D	F
<b>Q3</b>	A	B	C	D	F
<b>Q4</b>	A	B	C	D	F
	↓	↓	↓	↓	↓
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
<b>Q1</b>	A	A	B	C	D
<b>Q2</b>	A	B	C	D	F
<b>Q3</b>	A	B	C	D	F
<b>Q4</b>	A	B	C	D	F

Table of Resolved Grade-Bump 1 by Domain I Target Grade						
Resolved Grade - Bump 1	Domain I Target Grade					
Frequency Percent Row Pct Col Pct	A	B	C	D	F	Total
A	827 11.05 50.00 100.00	827 11.05 50.00 52.31	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1654 22.11
B	0 0.00 0.00 0.00	754 10.08 53.14 47.69	665 8.89 46.86 16.39	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1419 18.97
C	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3393 45.35 99.91 83.61	3 0.04 0.09 0.48	0 0.00 0.00 0.00	3396 45.40
D	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	616 8.23 100.00 99.52	0 0.00 0.00 0.00	616 8.23
F	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	396 5.29 100.00 100.00	396 5.29
Total	827 11.05	1581 21.13	4058 54.24	619 8.27	396 5.29	7481 100.00

**Model 3: One or Two Letter Grade Bump Model.** The A–F letter grade is chosen by the overall Domain I target. Campuses can “bump” two letter grades if the campus is in quartile 1 or one letter grade if the campus is in quartile 2 in relation to its campus comparison group.

One or Two Letter Grade Bump Model					
	<b>A (68 or more)</b>	<b>B (56–67)</b>	<b>C (37–55)</b>	<b>D (32–36)</b>	<b>F (less than 32)</b>
<b>Q1</b>	A	B	C	D	F
<b>Q2</b>	A	B	C	D	F
<b>Q3</b>	A	B	C	D	F
<b>Q4</b>	A	B	C	D	F
	↓	↓	↓	↓	↓
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
<b>Q1</b>	A	A	A	B	C
<b>Q2</b>	A	A	B	C	D
<b>Q3</b>	A	B	C	D	F
<b>Q4</b>	A	B	C	D	F

Table of Resolved Grade-Bump 2 by Domain I Target Grade						
Resolved Grade - Bump 2	Domain I Target Grade					
Frequency Percent Row Pct Col Pct	A	B	C	D	F	Total
A	827 11.05 30.00 100.00	1265 16.91 45.88 80.01	665 8.89 24.12 16.39	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2757 36.85
B	0 0.00 0.00 0.00	316 4.22 20.01 19.99	1260 16.84 79.80 31.05	3 0.04 0.19 0.48	0 0.00 0.00 0.00	1579 21.11
C	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2133 28.51 98.39 52.56	35 0.47 1.61 5.65	0 0.00 0.00 0.00	2168 28.98
D	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	581 7.77 99.66 93.86	2 0.03 0.34 0.51	583 7.79
F	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	394 5.27 100.00 99.49	394 5.27
Total	827 11.05	1581 21.13	4058 54.24	619 8.27	396 5.29	7481 100.00



### **District-Level Comparison Groups**

Comparison groups for districts would be needed should one of the domain level A–F models mentioned above be implemented. The following are possible options for district comparison groups.

- 1) TEA generates comparison groups for districts in a similar fashion to campus comparison groups. In this option, single-campus districts would not be included. Also, the comparison groups would be limited to a smaller number than the 40 used for campus comparison groups, such as 16 or 20 districts. Finally, indicators in the distance formula used to determine campus comparison groups could be replaced with other PEIMS or financial indicators that are more relevant to districts than campuses.
- 2) TEA generates district comparison groups using the indicators applied to Snapshot. Currently, Snapshot provides a peer search tool based on the following district indicators:
  - a. District size—the number of enrolled students
  - b. District type—the type of district such as urban or rural
  - c. Property wealth— an indicator of a school districts ability to raise local funds on a per-pupil basis.
  - d. Tax rate— a district’s tax rate categorized into one of four tax-rate quartiles.
- 3) For options 1 and 2, an alternative approach would allow district to choose their comparison districts from a larger list of similar districts provided by TEA. For example, districts could choose their twenty district comparison group from a list of forty similar districts generated by TEA.
- 4) Statewide comparison with the removal of single campus districts.

### **Domain III—Shanker Institute Report**

See the article by the Shanker Institute entitled *Rethinking The Use Of Simple Achievement Gap Measures In School Accountability Systems* for further discussion.

### **Domain IV – APAC Recommendations for Other Indicators**

See the *October 26, 2015 APAC Meeting Summary* for further discussion.

**HB 2804: Options for Overall A–F Calculations**

HB 2804 requires an overall A–F letter grade designation as well as A–F designations for each of the five domains. The overall A–F model below provides an example of how an overall A–F letter grade could be generated using Domain I through V cut points and weights. Elements of the model are defined as follows:

- **Weights**—The combined weights of the domains total 100 percent. Domains I, II, and III comprise 55 percent of the overall grade, Domain IV counts for 35 percent of the overall grade, and Domain V counts for 10 percent of the overall grade.
- **Cut Points**—Each domain has a determined point for a letter grade of A, B, C, D or F. Domain V has no cut point as the letter grade is given by the district. The cut points in the example are not scaled.
- **A–F Scores**—The method for quantifying the letter grades of A, B, C, D, and F associated with each domain.
- **Overall**—The cut points for determining a letter grade of A–F.

**Overall A–F Example**

Weights <sup>1</sup>		Cut Points				
		A	B	C	D	F
15%	Domain I	68	56	37	32	0
25%	Domain II	60	50	40	30	20
15%	Domain III	40	35	30	25	20
35%	Domain IV	80	70	60	50	40
10%	Domain V	District assigns letter grade				
	A–F Scores <sup>2</sup>	100	89	79	69	59
	Overall	90	80	70	60	<60

Example 1*			Example 2**		
<b>58</b>	<b>B</b>	<b>89</b>	<b>58</b>	<b>A</b>	<b>100</b>
55	B	89	55	B	89
33	C	79	33	C	79
79	B	89	79	B	89
A	100		A	100	
Weighted average= 88.6			Weighted average= 90.3		
Overall Rating: B			Overall Rating: A		

1. Weights for Domains I through III can be any combination that sums to 55.

2. In this example, A–F Scores are assigned the highest numerical score possible to quantify the domain letter grades.

\* No letter grade bump applied.

\*\* Letter grade for Domain I resolved to an A as a result of a Q1 bump.