

TEXAS LINKING STUDY

A Study of the Alignment of the NWEA RIT Scale
with the State of Texas Assessments of Academic Readiness
(STAAR)

November 2013

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A STUDY OF THE LINK OF THE NWEA RIT SCALE WITH THE STATE OF TEXAS ASSESSMENTS OF ACADEMIC READINESS (STAAR)

NOVEMBER 2013

Recently, NWEA completed a project to connect the scale of the State of Texas Assessments of Academic Readiness (STAAR) used for the Texas mathematics and reading assessments with NWEA's RIT scale. Information from the state assessments was used in a study to establish performance-level scores on the RIT scale that would indicate a good chance of success on these tests.

To perform the analysis, we linked together state test and NWEA test results for a sample of 9,477 Texas students who completed both exams in the spring of 2013. The Texas state test is administered in the spring. For the spring season (labeled "current season"), an Equipercntile method was used to estimate the RIT score equivalent to each state performance level. For fall (labeled "prior season"), we determined the percentage of the population within the selected study group that performed at each level on the state test and found the equivalent percentile ranges within the NWEA dataset to estimate the cut scores. For example, if 40% of the study group population in grade 3 mathematics performed below the proficient level on the state test, we would find the RIT score that would be equivalent to the 40th percentile for the study population (this would not be the same as the 40th percentile in the NWEA norms). This RIT score would be the estimated point on the NWEA RIT scale that would be equivalent to the minimum score for proficiency on the state test. Documentation about this method can be found on our website.

It should also be noted that Texas has implemented a "phased-in" proficiency system whereby the Level 2 (proficient) level is gradually increased over a set period of time.¹ Phase 1 is in effect for the duration of the 2012, 2013, and 2014 administrations. Phase 2 is expected to be implemented for the 2015 administration while the Final Phase proficiency level cut scores will be used for the 2016 assessment year and beyond. As such, this study contains a table set for each phase.

Table Sets 1, 2 and 3 show the best estimate of the minimum RIT equivalent to each state performance level for same-season (spring) and prior-season (fall) RIT scores. These tables can be used to identify students who may need additional help to perform well on these tests.

Table Sets 4, 5 and 6 show the estimated probability of a student receiving a proficient score on the state assessment, based on that student's RIT score. These tables can be used to assist in identifying students who are not likely to pass these assessments, thereby increasing the probability that intervention strategies will be planned and implemented. These tables can also be useful for identifying target RIT-score objectives likely to correspond to successful or "proficient" performance on the state test.

Table 7 shows the correlation coefficients between MAP and the state test in each grade. These statistics show the degree to which MAP and the state test are linearly related, with values at or near 1.0 suggesting a perfect linear relationship, and values near 0.0 indicating no linear relationship. Table 8

¹ Source: STAAR Standard Setting Technical Report
<http://www.tea.state.tx.us/student.assessment/staar/performance-standards/>

shows the percentages of students at each grade and within each subject whose status on the state test (i.e., whether or not the student “met standards”) was accurately predicted by their MAP performance and using the estimated cut scores within the current study. This table can be used to understand the predictive validity of MAP with respect to the STAAR.

TABLE SET 1 – MINIMUM ESTIMATED PHASE 1 RIT CUT SCORES CORRESPONDING TO STATE PERFORMANCE LEVELS FOR CURRENT **2012, 2013, 2014** (SPRING) AND PRIOR (FALL) SEASONS

MATH - Phase 1 Current Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<195	195	62	211	94
3	<207	207	62	223	94
4	<216	216	60	234	94
5	<220	220	47	240	90
6	<219	219	34	243	86
7	<228	228	44	255	92
8	<228	228	36	258	91
MATH - Phase 1 Prior Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<182	182	62	198	94
3	<196	196	62	212	94
4	<207	207	60	224	94
5	<212	212	47	231	90
6	<213	213	33	236	86
7	<223	223	44	249	92
8	<224	224	36	253	91

READING - Phase 1 Current Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<182	182	31	204	83
3	<192	192	31	213	83
4	<203	203	40	220	83
5	<207	207	35	225	81
6	<210	210	33	230	82
7	<211	211	27	235	86
8	<212	212	24	235	80
READING - Phase 1 Prior Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<168	168	30	190	82
3	<182	182	30	204	83
4	<196	196	40	213	82
5	<201	201	33	219	80
6	<206	206	33	225	81
7	<207	207	26	231	85
8	<209	209	24	232	80

* Note: the cut scores shown in this table are the **minimum** estimated scores. Meeting the minimum MAP cut score corresponds to a 50% probability of achieving that performance level. Use the probabilities in Table Set 3 to determine the appropriate 'target' scores for a desired level of certainty. Italics represent extrapolated data.

TABLE SET 2 – MINIMUM ESTIMATED PHASE 2 (**IMPLEMENTED 2015**) RIT CUT SCORES CORRESPONDING TO STATE PERFORMANCE LEVELS FOR CURRENT (SPRING) AND PRIOR (FALL) SEASONS

MATH - Phase 2 Current Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<199	199	75	211	94
3	<212	212	75	223	94
4	<223	223	77	234	94
5	<227	227	66	240	90
6	<228	228	56	243	86
7	<236	236	62	255	92
8	<235	235	51	258	91
MATH - Phase 2 Prior Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<187	187	75	198	94
3	<200	200	74	212	94
4	<213	213	76	224	94
5	<218	218	64	231	90
6	<222	222	56	236	86
7	<230	230	60	249	92
8	<230	230	50	253	91

READING - Phase 2 Current Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<190	190	52	204	83
3	<200	200	52	213	83
4	<208	208	54	220	83
5	<213	213	52	225	81
6	<215	215	46	230	82
7	<218	218	45	235	86
8	<219	219	41	235	80
READING - Phase 2 Prior Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<176	176	50	190	82
3	<190	190	50	204	83
4	<201	201	53	213	82
5	<207	207	50	219	80
6	<211	211	46	225	81
7	<214	214	44	231	85
8	<216	216	41	232	80

* Note: the cut scores shown in this table are the **minimum** estimated scores. Meeting the minimum MAP cut score corresponds to a 50% probability of achieving that performance level. Use the probabilities in Table Set 4 to determine the appropriate 'target' scores for a desired level of certainty. Italics represent extrapolated data.

TABLE SET 3 – MINIMUM ESTIMATED FINAL PHASE RIT CUT SCORES CORRESPONDING TO STATE PERFORMANCE LEVELS FOR CURRENT **2016** (SPRING) AND PRIOR (FALL) SEASONS

MATH - Final Phase Current Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<205	205	86	211	94
3	<217	217	86	223	94
4	<227	227	85	234	94
5	<233	233	79	240	90
6	<235	235	72	243	86
7	<242	242	74	255	92
8	<242	242	66	258	91
MATH - Final Phase Prior Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<192	192	86	198	94
3	<205	205	85	212	94
4	<217	217	84	224	94
5	<224	224	78	231	90
6	<228	228	71	236	86
7	<236	236	73	249	92
8	<237	237	66	253	91

READING - Final Phase Current Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<196	196	68	204	83
3	<206	206	68	213	83
4	<213	213	67	220	83
5	<219	219	68	225	81
6	<222	222	65	230	82
7	<226	226	67	235	86
8	<226	226	60	235	80
READING - Final Phase Prior Season					
Cut Scores and %tiles for each State Performance Level					
Grade	Level 1	Level 2		Level 3	
	Cut Score	Cut Score	%tile	Cut Score	%tile
2	<183	183	68	190	82
3	<197	197	68	204	83
4	<206	206	67	213	82
5	<213	213	66	219	80
6	<218	218	65	225	81
7	<222	222	66	231	85
8	<223	223	60	232	80

TABLE SET 4 –PHASE 1 ESTIMATED PROBABILITY OF SCORING AS PROFICIENT OR HIGHER ON THE STATE TEST IN SAME SEASON (SPRING), BY STUDENT GRADE AND RIT SCORE RANGE ON MAP ASSESSMENT

MATH - Phase 1 Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	0%	0%	0%	0%	0%	0%	0%
145	1%	0%	0%	0%	0%	0%	0%
150	1%	0%	0%	0%	0%	0%	0%
155	2%	1%	0%	0%	0%	0%	0%
160	3%	1%	0%	0%	0%	0%	0%
165	5%	1%	1%	0%	0%	0%	0%
170	8%	2%	1%	1%	1%	0%	0%
175	12%	4%	2%	1%	1%	0%	0%
180	18%	6%	3%	2%	2%	1%	1%
185	27%	10%	4%	3%	3%	1%	1%
190	38%	15%	7%	5%	5%	2%	2%
195	50%	23%	11%	8%	8%	4%	4%
200	62%	33%	17%	12%	13%	6%	6%
205	73%	45%	25%	18%	20%	9%	9%
210	82%	57%	35%	27%	29%	14%	14%
215	88%	69%	48%	38%	40%	21%	21%
220	92%	79%	60%	50%	52%	31%	31%
225	95%	86%	71%	62%	65%	43%	43%
230	97%	91%	80%	73%	75%	55%	55%
235	98%	94%	87%	82%	83%	67%	67%
240	99%	96%	92%	88%	89%	77%	77%
245	99%	98%	95%	92%	93%	85%	85%
250	100%	99%	97%	95%	96%	90%	90%
255	100%	99%	98%	97%	97%	94%	94%
260	100%	100%	99%	98%	98%	96%	96%
265	100%	100%	99%	99%	99%	98%	98%
270	100%	100%	100%	99%	99%	99%	99%
275	100%	100%	100%	100%	100%	99%	99%
280	100%	100%	100%	100%	100%	99%	99%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 12%.

Italics represent extrapolated data.

MATH - Phase 1 Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	1%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%
145	2%	1%	0%	0%	0%	0%	0%
150	4%	1%	0%	0%	0%	0%	0%
155	6%	2%	1%	0%	0%	0%	0%
160	10%	3%	1%	1%	0%	0%	0%
165	15%	4%	1%	1%	1%	0%	0%
170	23%	7%	2%	1%	1%	0%	0%
175	33%	11%	4%	2%	2%	1%	1%
180	45%	17%	6%	4%	4%	1%	1%
185	57%	25%	10%	6%	6%	2%	2%
190	69%	35%	15%	10%	9%	4%	3%
195	79%	48%	23%	15%	14%	6%	5%
200	86%	60%	33%	23%	21%	9%	8%
205	91%	71%	45%	33%	31%	14%	13%
210	94%	80%	57%	45%	43%	21%	20%
215	96%	87%	69%	57%	55%	31%	29%
220	98%	92%	79%	69%	67%	43%	40%
225	99%	95%	86%	79%	77%	55%	52%
230	99%	97%	91%	86%	85%	67%	65%
235	100%	98%	94%	91%	90%	77%	75%
240	100%	99%	96%	94%	94%	85%	83%
245	100%	99%	98%	96%	96%	90%	89%
250	100%	100%	99%	98%	98%	94%	93%
255	100%	100%	99%	99%	99%	96%	96%
260	100%	100%	100%	99%	99%	98%	97%
265	100%	100%	100%	100%	99%	99%	98%
270	100%	100%	100%	100%	100%	99%	99%
275	100%	100%	100%	100%	100%	99%	99%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, her/his estimated probability of passing the state test is 23%.

Italics represent extrapolated data.

READING - Phase 1 Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	1%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%
140	1%	1%	0%	0%	0%	0%	0%
145	2%	1%	0%	0%	0%	0%	0%
150	4%	1%	0%	0%	0%	0%	0%
155	6%	2%	1%	1%	0%	0%	0%
160	10%	4%	1%	1%	1%	1%	1%
165	15%	6%	2%	1%	1%	1%	1%
170	23%	10%	4%	2%	2%	2%	1%
175	33%	15%	6%	4%	3%	3%	2%
180	45%	23%	9%	6%	5%	4%	4%
185	57%	33%	14%	10%	8%	7%	6%
190	69%	45%	21%	15%	12%	11%	10%
195	79%	57%	31%	23%	18%	17%	15%
200	86%	69%	43%	33%	27%	25%	23%
205	91%	79%	55%	45%	38%	35%	33%
210	94%	86%	67%	57%	50%	48%	45%
215	96%	91%	77%	69%	62%	60%	57%
220	98%	94%	85%	79%	73%	71%	69%
225	99%	96%	90%	86%	82%	80%	79%
230	99%	98%	94%	91%	88%	87%	86%
235	100%	99%	96%	94%	92%	92%	91%
240	100%	99%	98%	96%	95%	95%	94%
245	100%	100%	99%	98%	97%	97%	96%
250	100%	100%	99%	99%	98%	98%	98%
255	100%	100%	99%	99%	99%	99%	99%
260	100%	100%	100%	100%	99%	99%	99%
265	100%	100%	100%	100%	100%	100%	100%
270	100%	100%	100%	100%	100%	100%	100%
275	100%	100%	100%	100%	100%	100%	100%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 33%.

Italics represent extrapolated data.

READING - Phase 1 Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	1%	0%	0%	0%	0%	0%	0%
125	1%	0%	0%	0%	0%	0%	0%
130	2%	1%	0%	0%	0%	0%	0%
135	4%	1%	0%	0%	0%	0%	0%
140	6%	1%	0%	0%	0%	0%	0%
145	9%	2%	1%	0%	0%	0%	0%
150	14%	4%	1%	1%	0%	0%	0%
155	21%	6%	2%	1%	1%	1%	0%
160	31%	10%	3%	2%	1%	1%	1%
165	43%	15%	4%	3%	2%	1%	1%
170	55%	23%	7%	4%	3%	2%	2%
175	67%	33%	11%	7%	4%	4%	3%
180	77%	45%	17%	11%	7%	6%	5%
185	85%	57%	25%	17%	11%	10%	8%
190	90%	69%	35%	25%	17%	15%	13%
195	94%	79%	48%	35%	25%	23%	20%
200	96%	86%	60%	48%	35%	33%	29%
205	98%	91%	71%	60%	48%	45%	40%
210	99%	94%	80%	71%	60%	57%	52%
215	99%	96%	87%	80%	71%	69%	65%
220	99%	98%	92%	87%	80%	79%	75%
225	100%	99%	95%	92%	87%	86%	83%
230	100%	99%	97%	95%	92%	91%	89%
235	100%	100%	98%	97%	95%	94%	93%
240	100%	100%	99%	98%	97%	96%	96%
245	100%	100%	99%	99%	98%	98%	97%
250	100%	100%	100%	99%	99%	99%	98%
255	100%	100%	100%	100%	99%	99%	99%
260	100%	100%	100%	100%	100%	100%	99%
265	100%	100%	100%	100%	100%	100%	100%
270	100%	100%	100%	100%	100%	100%	100%
275	100%	100%	100%	100%	100%	100%	100%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, her/his estimated probability of passing the state test is 48%.

Italics represent extrapolated data.

TABLE SET 5 –PHASE 2 ESTIMATED PROBABILITY OF SCORING AS PROFICIENT OR HIGHER ON THE STATE TEST IN SAME SEASON (SPRING), BY STUDENT GRADE AND RIT SCORE RANGE ON MAP ASSESSMENT

MATH - Phase 2 Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	0%	0%	0%	0%	0%	0%	0%
145	0%	0%	0%	0%	0%	0%	0%
150	1%	0%	0%	0%	0%	0%	0%
155	1%	0%	0%	0%	0%	0%	0%
160	2%	1%	0%	0%	0%	0%	0%
165	3%	1%	0%	0%	0%	0%	0%
170	5%	1%	0%	0%	0%	0%	0%
175	8%	2%	1%	1%	0%	0%	0%
180	13%	4%	1%	1%	1%	0%	0%
185	20%	6%	2%	1%	1%	1%	1%
190	29%	10%	4%	2%	2%	1%	1%
195	40%	15%	6%	4%	4%	2%	2%
200	52%	23%	9%	6%	6%	3%	3%
205	65%	33%	14%	10%	9%	4%	5%
210	75%	45%	21%	15%	14%	7%	8%
215	83%	57%	31%	23%	21%	11%	12%
220	89%	69%	43%	33%	31%	17%	18%
225	93%	79%	55%	45%	43%	25%	27%
230	96%	86%	67%	57%	55%	35%	38%
235	97%	91%	77%	69%	67%	48%	50%
240	98%	94%	85%	79%	77%	60%	62%
245	99%	96%	90%	86%	85%	71%	73%
250	99%	98%	94%	91%	90%	80%	82%
255	100%	99%	96%	94%	94%	87%	88%
260	100%	99%	98%	96%	96%	92%	92%
265	100%	100%	99%	98%	98%	95%	95%
270	100%	100%	99%	99%	99%	97%	97%
275	100%	100%	99%	99%	99%	98%	98%
280	100%	100%	100%	100%	99%	99%	99%
285	100%	100%	100%	100%	100%	99%	99%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 6%.

Italics represent extrapolated data.

MATH - Phase 2 Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%
145	1%	0%	0%	0%	0%	0%	0%
150	2%	1%	0%	0%	0%	0%	0%
155	4%	1%	0%	0%	0%	0%	0%
160	6%	2%	0%	0%	0%	0%	0%
165	10%	3%	1%	0%	0%	0%	0%
170	15%	5%	1%	1%	1%	0%	0%
175	23%	8%	2%	1%	1%	0%	0%
180	33%	12%	4%	2%	1%	1%	1%
185	45%	18%	6%	4%	2%	1%	1%
190	57%	27%	9%	6%	4%	2%	2%
195	69%	38%	14%	9%	6%	3%	3%
200	79%	50%	21%	14%	10%	5%	5%
205	86%	62%	31%	21%	15%	8%	8%
210	91%	73%	43%	31%	23%	12%	12%
215	94%	82%	55%	43%	33%	18%	18%
220	96%	88%	67%	55%	45%	27%	27%
225	98%	92%	77%	67%	57%	38%	38%
230	99%	95%	85%	77%	69%	50%	50%
235	99%	97%	90%	85%	79%	62%	62%
240	100%	98%	94%	90%	86%	73%	73%
245	100%	99%	96%	94%	91%	82%	82%
250	100%	99%	98%	96%	94%	88%	88%
255	100%	100%	99%	98%	96%	92%	92%
260	100%	100%	99%	99%	98%	95%	95%
265	100%	100%	99%	99%	99%	97%	97%
270	100%	100%	100%	99%	99%	98%	98%
275	100%	100%	100%	100%	100%	99%	99%
280	100%	100%	100%	100%	100%	99%	99%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, her/his estimated probability of passing the state test is 14%.

Italics represent extrapolated data.

READING - Phase 2 Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%
145	1%	0%	0%	0%	0%	0%	0%
150	2%	1%	0%	0%	0%	0%	0%
155	3%	1%	0%	0%	0%	0%	0%
160	5%	2%	1%	0%	0%	0%	0%
165	8%	3%	1%	1%	1%	0%	0%
170	12%	5%	2%	1%	1%	1%	1%
175	18%	8%	4%	2%	2%	1%	1%
180	27%	12%	6%	4%	3%	2%	2%
185	38%	18%	9%	6%	5%	4%	3%
190	50%	27%	14%	9%	8%	6%	5%
195	62%	38%	21%	14%	12%	9%	8%
200	73%	50%	31%	21%	18%	14%	13%
205	82%	62%	43%	31%	27%	21%	20%
210	88%	73%	55%	43%	38%	31%	29%
215	92%	82%	67%	55%	50%	43%	40%
220	95%	88%	77%	67%	62%	55%	52%
225	97%	92%	85%	77%	73%	67%	65%
230	98%	95%	90%	85%	82%	77%	75%
235	99%	97%	94%	90%	88%	85%	83%
240	99%	98%	96%	94%	92%	90%	89%
245	100%	99%	98%	96%	95%	94%	93%
250	100%	99%	99%	98%	97%	96%	96%
255	100%	100%	99%	99%	98%	98%	97%
260	100%	100%	99%	99%	99%	99%	98%
265	100%	100%	100%	99%	99%	99%	99%
270	100%	100%	100%	100%	100%	99%	99%
275	100%	100%	100%	100%	100%	100%	100%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 21%.

Italics represent extrapolated data.

READING - Phase 2 Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	1%	0%	0%	0%	0%	0%	0%
130	1%	0%	0%	0%	0%	0%	0%
135	2%	0%	0%	0%	0%	0%	0%
140	3%	1%	0%	0%	0%	0%	0%
145	4%	1%	0%	0%	0%	0%	0%
150	7%	2%	1%	0%	0%	0%	0%
155	11%	3%	1%	1%	0%	0%	0%
160	17%	5%	2%	1%	1%	0%	0%
165	25%	8%	3%	1%	1%	1%	1%
170	35%	12%	4%	2%	2%	1%	1%
175	48%	18%	7%	4%	3%	2%	2%
180	60%	27%	11%	6%	4%	3%	3%
185	71%	38%	17%	10%	7%	5%	4%
190	80%	50%	25%	15%	11%	8%	7%
195	87%	62%	35%	23%	17%	13%	11%
200	92%	73%	48%	33%	25%	20%	17%
205	95%	82%	60%	45%	35%	29%	25%
210	97%	88%	71%	57%	48%	40%	35%
215	98%	92%	80%	69%	60%	52%	48%
220	99%	95%	87%	79%	71%	65%	60%
225	99%	97%	92%	86%	80%	75%	71%
230	100%	98%	95%	91%	87%	83%	80%
235	100%	99%	97%	94%	92%	89%	87%
240	100%	99%	98%	96%	95%	93%	92%
245	100%	100%	99%	98%	97%	96%	95%
250	100%	100%	99%	99%	98%	97%	97%
255	100%	100%	100%	99%	99%	98%	98%
260	100%	100%	100%	100%	99%	99%	99%
265	100%	100%	100%	100%	100%	99%	99%
270	100%	100%	100%	100%	100%	100%	100%
275	100%	100%	100%	100%	100%	100%	100%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, her/his estimated probability of passing the state test is 33%.

Italics represent extrapolated data.

TABLE SET 6 –FINAL PHASE ESTIMATED PROBABILITY OF SCORING AS PROFICIENT OR HIGHER ON THE STATE TEST IN SAME SEASON (SPRING), BY STUDENT GRADE AND RIT SCORE RANGE ON MAP ASSESSMENT

MATH - Final Phase Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	0%	0%	0%	0%	0%	0%	0%
145	0%	0%	0%	0%	0%	0%	0%
150	0%	0%	0%	0%	0%	0%	0%
155	1%	0%	0%	0%	0%	0%	0%
160	1%	0%	0%	0%	0%	0%	0%
165	2%	1%	0%	0%	0%	0%	0%
170	3%	1%	0%	0%	0%	0%	0%
175	5%	1%	1%	0%	0%	0%	0%
180	8%	2%	1%	0%	0%	0%	0%
185	12%	4%	1%	1%	1%	0%	0%
190	18%	6%	2%	1%	1%	1%	1%
195	27%	10%	4%	2%	2%	1%	1%
200	38%	15%	6%	4%	3%	1%	1%
205	50%	23%	10%	6%	5%	2%	2%
210	62%	33%	15%	9%	8%	4%	4%
215	73%	45%	23%	14%	12%	6%	6%
220	82%	57%	33%	21%	18%	10%	10%
225	88%	69%	45%	31%	27%	15%	15%
230	92%	79%	57%	43%	38%	23%	23%
235	95%	86%	69%	55%	50%	33%	33%
240	97%	91%	79%	67%	62%	45%	45%
245	98%	94%	86%	77%	73%	57%	57%
250	99%	96%	91%	85%	82%	69%	69%
255	99%	98%	94%	90%	88%	79%	79%
260	100%	99%	96%	94%	92%	86%	86%
265	100%	99%	98%	96%	95%	91%	91%
270	100%	100%	99%	98%	97%	94%	94%
275	100%	100%	99%	99%	98%	96%	96%
280	100%	100%	100%	99%	99%	98%	98%
285	100%	100%	100%	99%	99%	99%	99%
290	100%	100%	100%	100%	100%	99%	99%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 4%.

Italics represent extrapolated data.

MATH - Final Phase Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%
145	1%	0%	0%	0%	0%	0%	0%
150	1%	0%	0%	0%	0%	0%	0%
155	2%	1%	0%	0%	0%	0%	0%
160	4%	1%	0%	0%	0%	0%	0%
165	6%	2%	1%	0%	0%	0%	0%
170	10%	3%	1%	0%	0%	0%	0%
175	15%	5%	1%	1%	0%	0%	0%
180	23%	8%	2%	1%	1%	0%	0%
185	33%	12%	4%	2%	1%	1%	1%
190	45%	18%	6%	3%	2%	1%	1%
195	57%	27%	10%	5%	4%	2%	1%
200	69%	38%	15%	8%	6%	3%	2%
205	79%	50%	23%	13%	9%	4%	4%
210	86%	62%	33%	20%	14%	7%	6%
215	91%	73%	45%	29%	21%	11%	10%
220	94%	82%	57%	40%	31%	17%	15%
225	96%	88%	69%	52%	43%	25%	23%
230	98%	92%	79%	65%	55%	35%	33%
235	99%	95%	86%	75%	67%	48%	45%
240	99%	97%	91%	83%	77%	60%	57%
245	100%	98%	94%	89%	85%	71%	69%
250	100%	99%	96%	93%	90%	80%	79%
255	100%	99%	98%	96%	94%	87%	86%
260	100%	100%	99%	97%	96%	92%	91%
265	100%	100%	99%	98%	98%	95%	94%
270	100%	100%	100%	99%	99%	97%	96%
275	100%	100%	100%	99%	99%	98%	98%
280	100%	100%	100%	100%	99%	99%	99%
285	100%	100%	100%	100%	100%	99%	99%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, her/his estimated probability of passing the state test is 8%.

Italics represent extrapolated data.

READING - Final Phase Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	0%	0%	0%	0%	0%	0%	0%
145	1%	0%	0%	0%	0%	0%	0%
150	1%	0%	0%	0%	0%	0%	0%
155	2%	1%	0%	0%	0%	0%	0%
160	3%	1%	0%	0%	0%	0%	0%
165	4%	2%	1%	0%	0%	0%	0%
170	7%	3%	1%	1%	1%	0%	0%
175	11%	4%	2%	1%	1%	1%	1%
180	17%	7%	4%	2%	1%	1%	1%
185	25%	11%	6%	3%	2%	2%	2%
190	35%	17%	9%	5%	4%	3%	3%
195	48%	25%	14%	8%	6%	4%	4%
200	60%	35%	21%	13%	10%	7%	7%
205	71%	48%	31%	20%	15%	11%	11%
210	80%	60%	43%	29%	23%	17%	17%
215	87%	71%	55%	40%	33%	25%	25%
220	92%	80%	67%	52%	45%	35%	35%
225	95%	87%	77%	65%	57%	48%	48%
230	97%	92%	85%	75%	69%	60%	60%
235	98%	95%	90%	83%	79%	71%	71%
240	99%	97%	94%	89%	86%	80%	80%
245	99%	98%	96%	93%	91%	87%	87%
250	100%	99%	98%	96%	94%	92%	92%
255	100%	99%	99%	97%	96%	95%	95%
260	100%	100%	99%	98%	98%	97%	97%
265	100%	100%	99%	99%	99%	98%	98%
270	100%	100%	100%	99%	99%	99%	99%
275	100%	100%	100%	100%	100%	99%	99%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 13%.

Italics represent extrapolated data.

READING - Final Phase Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	2	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%
145	2%	1%	0%	0%	0%	0%	0%
150	4%	1%	0%	0%	0%	0%	0%
155	6%	1%	1%	0%	0%	0%	0%
160	9%	2%	1%	0%	0%	0%	0%
165	14%	4%	2%	1%	0%	0%	0%
170	21%	6%	3%	1%	1%	1%	0%
175	31%	10%	4%	2%	1%	1%	1%
180	43%	15%	7%	4%	2%	1%	1%
185	55%	23%	11%	6%	4%	2%	2%
190	67%	33%	17%	9%	6%	4%	4%
195	77%	45%	25%	14%	9%	6%	6%
200	85%	57%	35%	21%	14%	10%	9%
205	90%	69%	48%	31%	21%	15%	14%
210	94%	79%	60%	43%	31%	23%	21%
215	96%	86%	71%	55%	43%	33%	31%
220	98%	91%	80%	67%	55%	45%	43%
225	99%	94%	87%	77%	67%	57%	55%
230	99%	96%	92%	85%	77%	69%	67%
235	99%	98%	95%	90%	85%	79%	77%
240	100%	99%	97%	94%	90%	86%	85%
245	100%	99%	98%	96%	94%	91%	90%
250	100%	100%	99%	98%	96%	94%	94%
255	100%	100%	99%	99%	98%	96%	96%
260	100%	100%	100%	99%	99%	98%	98%
265	100%	100%	100%	99%	99%	99%	99%
270	100%	100%	100%	100%	99%	99%	99%
275	100%	100%	100%	100%	100%	100%	99%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, her/his estimated probability of passing the state test is 21%.

Italics represent extrapolated data.

TABLE 7 – CORRELATION COEFFICIENTS BETWEEN MAP AND STATE TEST FOR EACH GRADE AND TEST SUBJECT

Grade	Math Correlation Pearson's r	Reading Correlation Pearson's r
3	0.719	0.751
4	0.757	0.743
5	0.764	0.709
6	0.815	0.722
7	0.818	0.736
8	0.703	0.704

* Note: Correlations range from 0 (indicating no correlation between the state test score and the NWEA test score) to 1 (indicating complete correlation between the state test score and the NWEA test score).

TABLE 8 – PERCENTAGE OF STUDENTS WHOSE PASS STATUS WAS ACCURATELY PREDICTED BY THEIR MAP PERFORMANCE USING REPORTED CUT SCORES

Phase 1

Grade	Sample Size	MAP Accurately Predicted State Performance	MAP Underestimated State Performance	MAP Overestimated State Performance
Mathematics				
3	3562	86.6%	6.4%	7.0%
4	3637	83.9%	7.6%	8.5%
5	3133	84.2%	8.0%	7.8%
6	2662	86.5%	6.7%	6.8%
7	2583	83.2%	8.6%	8.3%
8	734	80.1%	9.9%	9.9%
Reading				
3	1968	90.2%	4.6%	5.2%
4	2035	87.9%	5.8%	6.3%
5	1468	85.2%	7.4%	7.4%
6	1024	79.1%	10.4%	10.4%
7	992	81.9%	8.6%	9.6%
8	900	82.3%	8.9%	8.8%

* Note: The third column in the preceding tables show the percentage of students whose Pass/NotPass status was predicted accurately when their state test score was linked to their MAP score based on this linking study. The fourth column shows the percentage of students whose MAP score predicted they would not pass the state benchmark but they did pass. The last column shows the percentage of students whose MAP score predicted they would pass the state benchmark but they did not pass. Due to rounding, percentages may not add to 100%.