

A Study of the Alignment of the NWEA RIT Scale with the Florida Comprehensive Assessment Test

Michael P. Dahlin, Ph.D.

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Northwest Evaluation Association
5885 SW Meadows Road, Suite 200
Lake Oswego, OR 97035-3526

www.nwea.org
Tel 503-624-1951
Fax 503-639-7873

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Recently, NWEA completed a project to connect the scale of the tests used for Florida Comprehensive Assessment Test (FCAT) mathematics and reading assessments with NWEA's RIT scale. Information from the Florida 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.

The current study draws upon FCAT performance level data and MAP test scores for students in Duval County Public School District. To perform the analysis, we linked individual state test results with NWEA test results for all students who had taken both tests during the spring 2007 season.

The FCAT is administered in the spring season. For the spring season, an equipercentile method was used to estimate the RIT score equivalent to each state performance level. For spring, 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.

More information about this method can be found on our website.

Tables 1 through 4 show the best estimate of the minimum RIT equivalent to each Florida 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.

Tables 5 through 8 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 1 – Minimum Estimated Same-Season (Spring) RIT Cut Scores Corresponding to Florida Performance Levels – Mathematics

Grade	Level 1		Level 2		Level 3		Level 4		Level 5	
	Cut Score	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	
2	<179	179	16	185	30	195	64	204	88	
3	<190	190	16	196	30	206	64	215	88	
4	<197	197	15	207	40	219	74	230	93	
5	<206	206	20	217	46	228	75	239	93	
6	<216	216	31	225	52	236	78	246	93	
7	<215	215	22	226	43	240	74	250	90	
8	<214	214	15	226	32	241	64	250	82	
9	<215	215	12	230	31	244	61	256	87	
10	<217	217	11	231	28	245	57	261	91	

*Note: the cut scores shown in this table are the **minimum** estimated scores. Meeting the minimum MAP cut score corresponds approximately to a 50% probability of achieving that performance level. Use the probabilities provided in Tables 5-8 to determine the appropriate “target” scores for a desired level of certainty.

*Note 2: Blue text denotes extrapolated cut scores due to insufficient sample sizes.

Table 2 – Minimum Estimated Same-Season (Spring) RIT Cut Scores Corresponding to Florida Performance Levels – Reading

Grade	Level 1		Level 2		Level 3		Level 4		Level 5	
	Cut Score	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	
2	<176	176	19	183	33	198	73	209	95	
3	<186	186	19	193	33	207	73	218	95	
4	<196	196	23	203	40	214	74	226	96	
5	<204	204	27	213	53	222	81	232	96	
6	<201	201	15	211	34	224	74	234	93	
7	<203	203	14	215	37	227	72	237	93	
8	<211	211	20	223	50	236	87	245	97	
9	<215	215	23	229	61	237	85	243	95	
10	<224	224	40	235	74	239	86	242	91	

*Note: the cut scores shown in this table are the **minimum** estimated scores. Meeting the minimum MAP cut score corresponds approximately to a 50% probability of achieving that performance level. Use the probabilities provided in Tables 5-8 to determine the appropriate “target” scores for a desired level of certainty.

*Note 2: Blue text denotes extrapolated cut scores due to insufficient sample sizes.

Table 3 – Minimum Estimated Prior-Season (Fall) RIT Cut Scores Corresponding to Florida Performance Levels – Mathematics

Grade	Level 1		Level 2		Level 3		Level 4		Level 5	
	Cut Score	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	
2	<169	169	17	174	32	183	64	193	89	
3	<181	181	17	187	32	197	64	206	89	
4	<190	190	15	201	42	210	74	220	93	
5	<201	201	21	210	46	220	75	230	93	
6	<211	211	32	219	53	229	79	238	93	
7	<212	212	23	222	44	234	74	243	90	
8	<211	211	15	222	32	236	65	244	82	
9	<211	211	12	225	31	239	63	251	88	
10	<215	215	11	229	29	241	57	257	91	

Note: the cut scores shown in this table are the **minimum estimated scores. Meeting the minimum MAP cut score corresponds approximately to a 50% probability of achieving that performance level. Use the probabilities provided in Tables 5-8 to determine the appropriate “target” scores for a desired level of certainty.

*Note 2: Blue text denotes extrapolated cut scores due to insufficient sample sizes.

Table 4 – Minimum Estimated Prior-Season (Fall) RIT Cut Scores Corresponding to Florida Performance Levels – Reading

Grade	Level 1		Level 2		Level 3		Level 4		Level 5	
	Cut Score	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	Cut Score	Percentile	
2	<162	162	19	169	33	188	73	201	95	
3	<177	177	19	185	33	200	73	212	95	
4	<190	190	24	198	42	209	75	220	96	
5	<199	199	27	209	55	218	82	227	96	
6	<197	197	15	207	34	220	74	230	93	
7	<200	200	14	212	37	224	74	234	94	
8	<208	208	20	220	51	233	87	241	97	
9	<212	212	23	226	61	235	86	241	96	
10	<223	223	40	234	76	238	87	241	92	

*Note: the cut scores shown in this table are the **minimum** estimated scores. Meeting the minimum MAP cut score corresponds approximately to a 50% probability of achieving that performance level. Use the probabilities provided in Tables 5-8 to determine the appropriate “target” scores for a desired level of certainty.

*Note 2: Blue text denotes extrapolated cut scores due to insufficient sample sizes.

Table 5 –Estimated Probability of Passing State Mathematics Test in Same Season (Spring), by Student Grade and RIT Score Range on MAP Mathematics

Estimated Probability of Passing State Test for Student with Given RIT Score									
RIT Range	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10
130	1%	0%	0%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%	0%	0%
145	2%	1%	0%	0%	0%	0%	0%	0%	0%
150	4%	1%	0%	0%	0%	0%	0%	0%	0%
155	6%	2%	1%	0%	0%	0%	0%	0%	0%
160	9%	3%	1%	0%	0%	0%	0%	0%	0%
165	14%	5%	2%	1%	0%	0%	0%	0%	0%
170	22%	8%	3%	1%	1%	0%	0%	0%	0%
175	31%	13%	5%	2%	1%	1%	1%	1%	0%
180	43%	20%	8%	3%	1%	1%	1%	1%	1%
185	55%	29%	12%	5%	2%	2%	2%	1%	1%
190	67%	40%	18%	8%	4%	3%	3%	2%	2%
195	77%	52%	27%	12%	6%	5%	5%	4%	3%
200	84%	64%	38%	18%	9%	8%	8%	6%	5%
205	90%	75%	50%	27%	14%	13%	13%	9%	8%
210	94%	83%	62%	38%	22%	20%	20%	14%	13%
215	96%	89%	73%	50%	31%	29%	29%	22%	20%
220	98%	93%	82%	62%	43%	40%	40%	31%	29%
225	99%	96%	88%	73%	55%	52%	52%	43%	40%
230	99%	97%	92%	82%	67%	64%	64%	55%	52%
235	99%	98%	95%	88%	77%	75%	75%	67%	64%
240	100%	99%	97%	92%	84%	83%	83%	77%	75%
245	100%	99%	98%	95%	90%	89%	89%	84%	83%
250	100%	100%	99%	97%	94%	93%	93%	90%	89%
255	100%	100%	99%	98%	96%	96%	96%	94%	93%
260	100%	100%	100%	99%	98%	97%	97%	96%	96%
265	100%	100%	100%	99%	99%	98%	98%	98%	97%
270	100%	100%	100%	100%	99%	99%	99%	99%	98%
275	100%	100%	100%	100%	99%	99%	99%	99%	99%
280	100%	100%	100%	100%	100%	100%	100%	99%	99%
285	100%	100%	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	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 third grade student scored 170 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 8%.

Table 6 – Estimated Probability of Passing State Reading Test in Same Season (Spring), by Student Grade and RIT Score Range on MAP Reading

Estimated Probability of Passing State Test for Student with Given RIT Score									
RIT Range	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10
130	1%	0%	0%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%	0%	0%
140	2%	1%	0%	0%	0%	0%	0%	0%	0%
145	3%	1%	0%	0%	0%	0%	0%	0%	0%
150	4%	2%	1%	0%	0%	0%	0%	0%	0%
155	7%	3%	1%	0%	0%	0%	0%	0%	0%
160	11%	4%	2%	1%	1%	1%	0%	0%	0%
165	17%	7%	3%	1%	1%	1%	0%	0%	0%
170	25%	11%	4%	2%	2%	1%	1%	0%	0%
175	36%	17%	7%	3%	3%	2%	1%	1%	0%
180	48%	25%	11%	4%	5%	4%	2%	1%	1%
185	60%	36%	17%	7%	8%	6%	3%	1%	1%
190	71%	48%	25%	11%	13%	9%	4%	2%	1%
195	80%	60%	36%	17%	20%	14%	7%	4%	2%
200	87%	71%	48%	25%	29%	22%	11%	6%	4%
205	92%	80%	60%	36%	40%	31%	17%	10%	6%
210	95%	87%	71%	48%	52%	43%	25%	16%	9%
215	97%	92%	80%	60%	64%	55%	36%	23%	14%
220	98%	95%	87%	71%	75%	67%	48%	33%	22%
225	99%	97%	92%	80%	83%	77%	60%	45%	31%
230	99%	98%	95%	87%	89%	84%	71%	57%	43%
235	100%	99%	97%	92%	93%	90%	80%	69%	55%
240	100%	99%	98%	95%	96%	94%	87%	78%	67%
245	100%	100%	99%	97%	97%	96%	92%	86%	77%
250	100%	100%	99%	98%	98%	98%	95%	91%	84%
255	100%	100%	100%	99%	99%	99%	97%	94%	90%
260	100%	100%	100%	99%	99%	99%	98%	96%	94%
265	100%	100%	100%	100%	100%	99%	99%	98%	96%
270	100%	100%	100%	100%	100%	100%	99%	99%	98%
275	100%	100%	100%	100%	100%	100%	100%	99%	99%
280	100%	100%	100%	100%	100%	100%	100%	99%	99%
285	100%	100%	100%	100%	100%	100%	100%	100%	99%
290	100%	100%	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	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 third grade student scored 190 on a MAP test taken during the spring season, her/his estimated probability of passing the state test is 48%.

Table 7 – Estimated Probability of Passing State Mathematics Test Based on Prior Season (Fall) MAP Score, by Student Grade and RIT Score Range on MAP Mathematics

Estimated Probability of Passing State Test for Student with Given RIT Score									
RIT Range	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10
130	1%	0%	0%	0%	0%	0%	0%	0%	0%
135	2%	1%	0%	0%	0%	0%	0%	0%	0%
140	4%	1%	0%	0%	0%	0%	0%	0%	0%
145	6%	2%	0%	0%	0%	0%	0%	0%	0%
150	10%	3%	1%	0%	0%	0%	0%	0%	0%
155	16%	5%	1%	1%	0%	0%	0%	0%	0%
160	23%	8%	2%	1%	0%	0%	0%	0%	0%
165	33%	12%	3%	1%	1%	0%	0%	0%	0%
170	45%	18%	5%	2%	1%	1%	1%	1%	0%
175	57%	27%	8%	4%	1%	1%	1%	1%	1%
180	69%	38%	13%	6%	2%	2%	2%	1%	1%
185	78%	50%	20%	9%	4%	3%	3%	2%	1%
190	86%	62%	29%	14%	6%	5%	5%	4%	2%
195	91%	73%	40%	22%	10%	8%	8%	6%	4%
200	94%	82%	52%	31%	16%	12%	12%	9%	6%
205	96%	88%	64%	43%	23%	18%	18%	14%	10%
210	98%	92%	75%	55%	33%	27%	27%	22%	16%
215	99%	95%	83%	67%	45%	38%	38%	31%	23%
220	99%	97%	89%	77%	57%	50%	50%	43%	33%
225	99%	98%	93%	84%	69%	62%	62%	55%	45%
230	100%	99%	96%	90%	78%	73%	73%	67%	57%
235	100%	99%	97%	94%	86%	82%	82%	77%	69%
240	100%	100%	98%	96%	91%	88%	88%	84%	78%
245	100%	100%	99%	98%	94%	92%	92%	90%	86%
250	100%	100%	99%	99%	96%	95%	95%	94%	91%
255	100%	100%	100%	99%	98%	97%	97%	96%	94%
260	100%	100%	100%	99%	99%	98%	98%	98%	96%
265	100%	100%	100%	100%	99%	99%	99%	99%	98%
270	100%	100%	100%	100%	99%	99%	99%	99%	99%
275	100%	100%	100%	100%	100%	100%	100%	99%	99%
280	100%	100%	100%	100%	100%	100%	100%	100%	99%
285	100%	100%	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: This table provides the estimated probability of passing the state test in spring, based on a MAP test score taken during the previous (fall) season. Example: if a third grade student scored 170 on a MAP test taken during the fall season, her/his estimated probability of passing the state test in spring is 18%.

Table 8 – Estimated Probability of Passing State Reading Test Based on Prior Season (Fall) MAP Score, by Student Grade and RIT Score Range on MAP Reading

Estimated Probability of Passing State Test for Student with Given RIT Score									
RIT Range	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10
130	2%	1%	0%	0%	0%	0%	0%	0%	0%
135	4%	1%	0%	0%	0%	0%	0%	0%	0%
140	6%	1%	0%	0%	0%	0%	0%	0%	0%
145	10%	2%	1%	0%	0%	0%	0%	0%	0%
150	16%	4%	1%	0%	0%	0%	0%	0%	0%
155	23%	6%	2%	1%	1%	0%	0%	0%	0%
160	33%	9%	3%	1%	1%	1%	0%	0%	0%
165	45%	14%	4%	1%	2%	1%	1%	0%	0%
170	57%	22%	7%	2%	3%	2%	1%	0%	0%
175	69%	31%	11%	4%	5%	3%	1%	1%	0%
180	78%	43%	17%	6%	8%	5%	2%	1%	1%
185	86%	55%	25%	10%	12%	8%	4%	2%	1%
190	91%	67%	36%	16%	18%	12%	6%	3%	1%
195	94%	77%	48%	23%	27%	18%	9%	5%	2%
200	96%	84%	60%	33%	38%	27%	14%	8%	4%
205	98%	90%	71%	45%	50%	38%	22%	13%	6%
210	99%	94%	80%	57%	62%	50%	31%	20%	10%
215	99%	96%	87%	69%	73%	62%	43%	29%	16%
220	99%	98%	92%	78%	82%	73%	55%	40%	23%
225	100%	99%	95%	86%	88%	82%	67%	52%	33%
230	100%	99%	97%	91%	92%	88%	77%	64%	45%
235	100%	99%	98%	94%	95%	92%	84%	75%	57%
240	100%	100%	99%	96%	97%	95%	90%	83%	69%
245	100%	100%	99%	98%	98%	97%	94%	89%	78%
250	100%	100%	100%	99%	99%	98%	96%	93%	86%
255	100%	100%	100%	99%	99%	99%	98%	96%	91%
260	100%	100%	100%	99%	100%	99%	99%	97%	94%
265	100%	100%	100%	100%	100%	100%	99%	98%	96%
270	100%	100%	100%	100%	100%	100%	99%	99%	98%
275	100%	100%	100%	100%	100%	100%	100%	99%	99%
280	100%	100%	100%	100%	100%	100%	100%	100%	99%
285	100%	100%	100%	100%	100%	100%	100%	100%	99%
290	100%	100%	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: This table provides the estimated probability of passing the state test in spring, based on a MAP test score taken during the previous (fall) season. Example: if a third grade student scored a 190 on a MAP test taken during the fall season, her/his estimated probability of passing the state test in spring is 67%.