

A Study of the Alignment of the NWEA RIT Scale with the Indiana Assessment System

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Recently, NWEA completed a project to connect the scale of the tests used for Indiana mathematics and reading assessments with NWEA's RIT scale. Information from the Indiana 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 aggregate state test results with NWEA test results for all schools whose NWEA test count for a grade and subject was between 95% and 105% of the count tested on the state assessment. This provided assurance that only schools that had tested a very similar population on both tests were included.

The Indiana state test is administered in fall. For the fall season, an equipercentile method was used to estimate the RIT score equivalent to each state performance level. For fall, 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 complete documentation about this method can be found on our website.

Tables 1 through 6 show the best estimate of the RIT equivalent to each Indiana performance level for same-season (fall) and prior-season (spring) RIT scores. These tables may be used to identify students who may need additional help to perform well on these tests.

Tables 7 through 12 show the proportion of students achieving various RIT score ranges whom we estimate would achieve a proficient score on the state assessment. 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.

Table 1 – Recommended same-season (fall) RIT cut scores for Indiana performance levels – Reading

Grade	Did not pass		Pass		Pass+	
	Cut score	Cut score	Percentile	Cut score	Percentile	
3	<182	182	27	208	91	
4	<192	192	27	216	91	
5	<200	200	29	222	90	
6	<206	206	32	229	92	
7	<211	211	34	231	89	
8	<214	214	33	235	91	
9	<216	216	32	239	93	
10	<216	216	23	244	96	

Table 2 – Recommended same-season (fall) RIT cut scores for Indiana performance levels – Language Usage

Grade	Did not pass		Pass		Pass+	
	Cut score	Cut score	Percentile	Cut score	Percentile	
3	<185	185	26	209	89	
4	<195	195	27	217	89	
5	<202	202	28	223	90	
6	<208	208	32	229	94	
7	<212	212	33	232	93	
8	<216	216	37	235	94	
9	<217	217	34	238	95	
10	<216	216	23	240	95	

Table 3 – Recommended same-season (fall) RIT cut scores for Indiana performance levels – Mathematics

Grade	Did not pass		Pass		Pass+	
	Cut score	Cut score	Percentile	Cut score	Percentile	
3	<188	188	35	206	89	
4	<198	198	32	218	91	
5	<205	205	31	226	87	
6	<209	209	27	232	85	
7	<214	214	26	240	86	
8	<223	223	34	247	87	
9	<227	227	35	250	86	
10	<232	232	35	256	89	

Table 4 – Recommended prior-season (spring) RIT cut scores for Indiana performance levels – Reading

Grade	Did not pass		Pass		Pass+	
	Cut score	Cut score	Percentile	Cut score	Percentile	
3	<180	180	27	206	91	
4	<191	191	28	215	91	
5	<199	199	29	221	90	
6	<206	206	32	228	93	
7	<211	211	34	231	89	
8	<214	214	35	236	91	
9	<217	217	33	240	93	
10	<215	215	23	244	96	

Table 5 – Recommended prior-season (spring) RIT cut scores for Indiana performance levels – Language Usage

Grade	Did not pass		Pass		Pass+	
	Cut score	Cut score	Percentile	Cut score	Percentile	
3	<183	183	26	208	90	
4	<194	194	27	216	89	
5	<201	201	28	222	90	
6	<208	208	32	229	94	
7	<212	212	33	232	94	
8	<216	216	39	235	94	
9	<217	217	34	238	95	
10	<215	215	23	240	95	

Table 6 – Recommended prior-season (spring) RIT cut scores for Indiana performance levels – Mathematics

Grade	Did not pass		Pass		Pass+	
	Cut score	Cut score	Percentile	Cut score	Percentile	
3	<186	186	35	204	89	
4	<197	197	33	217	91	
5	<204	204	31	225	87	
6	<210	210	28	233	85	
7	<214	214	27	241	87	
8	<222	222	34	248	88	
9	<228	228	36	253	87	
10	<232	232	35	257	89	

Table 7 – Proportion of students passing the Indiana state reading assessment based on same-season (fall) reading RIT range

RIT Range	Percent in this range who pass							
	3	4	5	6	7	8	9	10
150	5%	2%	1%	0%	0%	0%	0%	0%
155	8%	3%	1%	1%	0%	0%	0%	0%
160	12%	5%	2%	1%	1%	1%	0%	0%
165	18%	8%	4%	2%	1%	1%	1%	1%
170	27%	12%	6%	3%	2%	1%	1%	1%
175	38%	18%	9%	5%	3%	2%	2%	2%
180	50%	27%	14%	8%	5%	4%	3%	3%
185	62%	38%	22%	13%	8%	6%	5%	5%
190	73%	50%	31%	20%	13%	10%	8%	8%
195	82%	62%	43%	29%	20%	16%	13%	13%
200	88%	73%	55%	40%	29%	23%	20%	20%
205	92%	82%	67%	52%	40%	33%	29%	29%
210	95%	88%	77%	64%	52%	45%	40%	40%
215	97%	92%	84%	75%	64%	57%	52%	52%
220	98%	95%	90%	83%	75%	69%	64%	64%
225	99%	97%	94%	89%	83%	78%	75%	75%
230	99%	98%	96%	93%	89%	86%	83%	83%
235	100%	99%	98%	96%	93%	91%	89%	89%
240	100%	99%	99%	97%	96%	94%	93%	93%
245	100%	100%	99%	98%	97%	96%	96%	96%

Table 8 – Proportion of students passing the Indiana state language usage assessment based on same-season (fall) language usage RIT range

RIT Range	Percent in this range who pass							
	3	4	5	6	7	8	9	10
155	6%	2%	1%	1%	0%	0%	0%	0%
160	9%	4%	2%	1%	1%	0%	0%	0%
165	14%	6%	3%	2%	1%	1%	1%	1%
170	22%	9%	5%	3%	2%	1%	1%	1%
175	31%	14%	8%	4%	3%	2%	2%	2%
180	43%	22%	12%	7%	5%	3%	3%	3%
185	55%	31%	18%	11%	8%	5%	5%	5%
190	67%	43%	27%	17%	12%	8%	8%	8%
195	77%	55%	38%	25%	18%	13%	12%	13%
200	84%	67%	50%	36%	27%	20%	18%	20%
205	90%	77%	62%	48%	38%	29%	27%	29%
210	94%	84%	73%	60%	50%	40%	38%	40%
215	96%	90%	82%	71%	62%	52%	50%	52%
220	98%	94%	88%	80%	73%	64%	62%	64%
225	99%	96%	92%	87%	82%	75%	73%	75%
230	99%	98%	95%	92%	88%	83%	82%	83%
235	99%	99%	97%	95%	92%	89%	88%	89%
240	100%	99%	98%	97%	95%	93%	92%	93%
245	100%	99%	99%	98%	97%	96%	95%	96%

Table 9 – Proportion of students passing the Indiana state mathematics assessment based on same-season (fall) mathematics RIT range

RIT Range	Percent in this range who pass							
	3	4	5	6	7	8	9	10
160	7%	3%	1%	1%	1%	0%	0%	0%
165	11%	4%	2%	1%	1%	0%	0%	0%
170	17%	7%	4%	2%	1%	1%	0%	0%
175	25%	11%	6%	4%	2%	1%	1%	0%
180	36%	17%	9%	6%	4%	2%	1%	1%
185	48%	25%	14%	10%	6%	3%	2%	1%
190	60%	36%	22%	16%	10%	4%	3%	2%
195	71%	48%	31%	23%	16%	7%	5%	3%
200	80%	60%	43%	33%	23%	11%	8%	5%
205	87%	71%	55%	45%	33%	17%	12%	8%
210	92%	80%	67%	57%	45%	25%	18%	12%
215	95%	87%	77%	69%	57%	36%	27%	18%
220	97%	92%	84%	78%	69%	48%	38%	27%
225	98%	95%	90%	86%	78%	60%	50%	38%
230	99%	97%	94%	91%	86%	71%	62%	50%
235	99%	98%	96%	94%	91%	80%	73%	62%
240	100%	99%	98%	96%	94%	87%	82%	73%
245	100%	99%	99%	98%	96%	92%	88%	82%
250	100%	100%	99%	99%	98%	95%	92%	88%
255	100%	100%	99%	99%	99%	97%	95%	92%
260	100%	100%	100%	99%	99%	98%	97%	95%

Table 10 – Proportion of students passing the Indiana state reading assessment based on prior-season (spring) reading RIT range

RIT Range	Percent in this range who pass							
	3	4	5	6	7	8	9	10
150	6%	2%	1%	0%	0%	0%	0%	0%
155	9%	3%	1%	1%	0%	0%	0%	0%
160	14%	5%	2%	1%	1%	1%	0%	1%
165	22%	8%	4%	2%	1%	1%	1%	1%
170	31%	13%	6%	3%	2%	1%	1%	1%
175	43%	20%	10%	5%	3%	2%	2%	2%
180	55%	29%	16%	8%	5%	4%	3%	4%
185	67%	40%	23%	13%	8%	6%	5%	6%
190	77%	52%	33%	20%	13%	10%	8%	9%
195	84%	64%	45%	29%	20%	16%	12%	14%
200	90%	75%	57%	40%	29%	23%	18%	22%
205	94%	83%	69%	52%	40%	33%	27%	31%
210	96%	89%	78%	64%	52%	45%	38%	43%
215	98%	93%	86%	75%	64%	57%	50%	55%
220	99%	96%	91%	83%	75%	69%	62%	67%
225	99%	97%	94%	89%	83%	78%	73%	77%
230	99%	98%	96%	93%	89%	86%	82%	84%
235	100%	99%	98%	96%	93%	91%	88%	90%
240	100%	99%	99%	97%	96%	94%	92%	94%
245	100%	100%	99%	98%	97%	96%	95%	96%

***Note: the grade indicated in this table is the grade that the student will be in when the state assessment is administered. Example: A 2nd grade student takes the MAP reading test in the spring and scores a RIT of 180, a teacher would find 180 in the RIT Range column and then follow the 3rd grade column down to the 180 point and see that the probability that the student will pass the 3rd grade state assessment is 55%.**

Table 11 – Proportion of students passing the Indiana state language usage assessment based on prior-season (spring) language usage RIT range

RIT Range	Percent in this range who pass							
	3	4	5	6	7	8	9	10
155	7%	2%	1%	1%	0%	0%	0%	0%
160	11%	4%	2%	1%	1%	0%	0%	1%
165	17%	6%	3%	2%	1%	1%	1%	1%
170	25%	10%	5%	3%	2%	1%	1%	1%
175	36%	16%	8%	4%	3%	2%	2%	2%
180	48%	23%	13%	7%	5%	3%	3%	4%
185	60%	33%	20%	11%	8%	5%	5%	6%
190	71%	45%	29%	17%	12%	8%	8%	9%
195	80%	57%	40%	25%	18%	13%	12%	14%
200	87%	69%	52%	36%	27%	20%	18%	22%
205	92%	78%	64%	48%	38%	29%	27%	31%
210	95%	86%	75%	60%	50%	40%	38%	43%
215	97%	91%	83%	71%	62%	52%	50%	55%
220	98%	94%	89%	80%	73%	64%	62%	67%
225	99%	96%	93%	87%	82%	75%	73%	77%
230	99%	98%	96%	92%	88%	83%	82%	84%
235	100%	99%	97%	95%	92%	89%	88%	90%
240	100%	99%	98%	97%	95%	93%	92%	94%
245	100%	99%	99%	98%	97%	96%	95%	96%

***Note: the grade indicated in this table is the grade that the student will be in when the state assesment is administered. Seenote under table 10 for an example.**

Table 12 – Proportion of students passing the Indiana state mathematics assessment based on prior-season (spring) mathematics RIT range

RIT Range	Percent in this range who pass							
	3	4	5	6	7	8	9	10
155	5%	2%	1%	1%	0%	0%	0%	0%
160	8%	3%	1%	1%	1%	0%	0%	0%
165	13%	5%	2%	1%	1%	0%	0%	0%
170	20%	8%	4%	2%	1%	1%	0%	0%
175	29%	12%	6%	4%	2%	1%	1%	0%
180	40%	18%	10%	6%	4%	2%	1%	1%
185	52%	27%	16%	9%	6%	3%	2%	1%
190	64%	38%	23%	14%	10%	5%	3%	2%
195	75%	50%	33%	22%	16%	8%	4%	3%
200	83%	62%	45%	31%	23%	12%	7%	5%
205	89%	73%	57%	43%	33%	18%	11%	8%
210	93%	82%	69%	55%	45%	27%	17%	12%
215	96%	88%	78%	67%	57%	38%	25%	18%
220	97%	92%	86%	77%	69%	50%	36%	27%
225	98%	95%	91%	84%	78%	62%	48%	38%
230	99%	97%	94%	90%	86%	73%	60%	50%
235	99%	98%	96%	94%	91%	82%	71%	62%
240	100%	99%	98%	96%	94%	88%	80%	73%
245	100%	99%	99%	98%	96%	92%	87%	82%
250	100%	100%	99%	99%	98%	95%	92%	88%
255	100%	100%	99%	99%	99%	97%	95%	92%
260	100%	100%	100%	99%	99%	98%	97%	95%

***Note: the grade indicated in this table is the grade that the student will be in when the state assessment is administered. See note under table 10 for an example.**