

Predicting proficiency on the Illinois Assessment of Readiness (IAR) based on MAP Growth scores

These tables provide the *Proficient* cut scores for reading and mathematics across grades 2-8 and can be used to predict a student's likelihood of meeting proficiency on the IAR based on MAP® Growth™ RIT scores if taken in the fall, winter, or spring.

READING

GRADE	ASSESSMENT	FALL RIT	WINTER RIT	SPRING RIT	SPRING PERCENTILE
2	MAP Growth K-2 MAP Growth	175 –198	182 –204	186 –206	60–92
3	MAP Growth	189 –208	195 –213	198 –214	59–87
4	MAP Growth	199 –218	203 –220	205 –221	57–86
5	MAP Growth	204 –224	207 –225	209 –226	51–85
6	MAP Growth	212 –229	214 –230	215 –231	57–87
7	MAP Growth	217 –233	218 –234	219 –235	60–88
8	MAP Growth	219 –236	220 –237	221 –238	57–88

MATHEMATICS

GRADE	ASSESSMENT	FALL RIT	WINTER RIT	SPRING RIT	SPRING PERCENTILE
2	MAP Growth K-2 MAP Growth	181 –204	190 –212	195 –215	68–95
3	MAP Growth	191 –210	200 –219	206 –224	66–93
4	MAP Growth	207 –227	215 –235	220 –240	71–95
5	MAP Growth	216 –236	222 –243	226 –247	71–95
6	MAP Growth	222 –239	229 –246	233 –250	75–94
7	MAP Growth	229 –251	234 –256	236 –258	74–96
8	MAP Growth	237 –256	242 –262	244 –263	77–95

Bolded numbers indicate the cut scores considered to be at least proficient for accountability purposes.



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Predicting Proficiency on the Illinois Assessment of Readiness (IAR) Based on NWEA MAP Growth Scores

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NWEA Psychometrics and Analytics

Linking Study Updates

Date	Description
2021-01	Conducted a linking study for grades 3–8 in mathematics and ELA/Literacy based on the 2020 norms and Spring 2019 data.
2025-08	Updated the linking study based on the 2025 norms.
2026-08	Conducted a new linking study for grades 3–8 in mathematics and ELA/Literacy based on the 2025 norms and Spring 2025 data.

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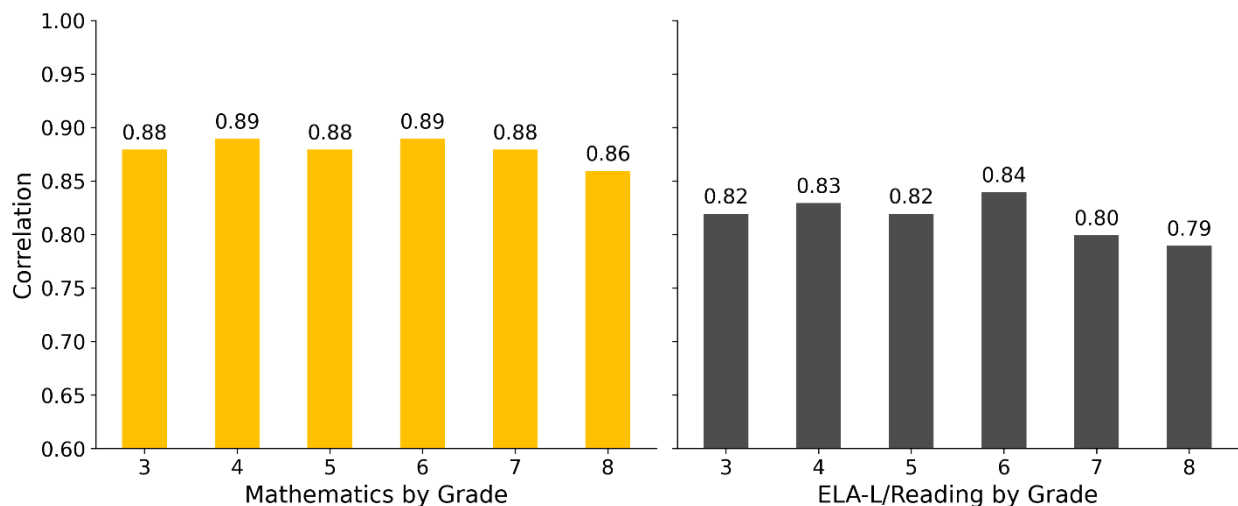
Executive Summary

Linking studies allow partners to use MAP® Growth™ Rasch Unit (RIT) scores throughout the year to predict students' likely performance levels on state summative assessments. This is accomplished through statistical analyses that produce RIT cut scores that correspond to state summative performance levels. A “cut score” is the minimum score a student must get on a test to be placed in a certain performance level. The linking study for the Illinois Assessment of Readiness (IAR) described in this report provides RIT cut scores for the fall, winter, and spring MAP Growth administrations that correspond to the IAR performance levels for mathematics and ELA-Literacy (ELA-L) in grades 3–8. Because an insufficient number of student records were available for the Illinois Science Assessment (ISA) in grades 5 and 8, science was excluded from this linking study to maintain the reliability and validity of the linking study results.

The linking study is based on test scores from students in grades 3–8 who took both the MAP Growth and IAR assessments in mathematics and ELA-L or reading in Spring 2025. The linking study sample included 36,419 students across 32 districts and 163 schools in Illinois. Scores from both tests were used as the basis for linking the assessments together.

Before the linking analyses began, NWEA confirmed that the MAP Growth and IAR assessments are aligned on the same or similar set of content standards, thus warranting a connection. The link between the two tests was further investigated by calculating the Pearson correlation coefficients that relate the specific MAP Growth and IAR test scores. A high positive correlation (e.g., ≥ 0.70) shows that students who perform well on one assessment also tend to perform well on the other, and vice versa, with 1.00 being a perfect positive correlation. The correlations between the MAP Growth and IAR test scores are all higher than 0.70, as shown in Figure E.1, indicating that MAP Growth is an effective assessment for predicting student performance on the IAR tests.

Figure E.1. Correlations Between MAP Growth and IAR Test Scores



The equipercentile linking method (Kolen & Brennan, 2004) was used to produce the RIT cut scores for the spring administration that correspond to performance levels on the IAR assessment for every subject and grade. MAP Growth cut scores for grade 2, as well as those for the fall and winter administrations of all grades, are also provided so that educators can track

grade 2 students' progress on the IAR tests by grade 3, alongside all other students, early in the year. These cut scores were derived from the spring cuts and the growth norms for the adjacent grades (i.e., grades 2 to 3), or fall and winter administrations to the spring administration. While RIT cut scores were generated for every performance level on the IAR assessment, Table E.1 presents the *Proficient* cut scores that indicate the minimum score a student must get to be considered proficient (reaching *Proficient* or *Above Proficient*) for accountability purposes.

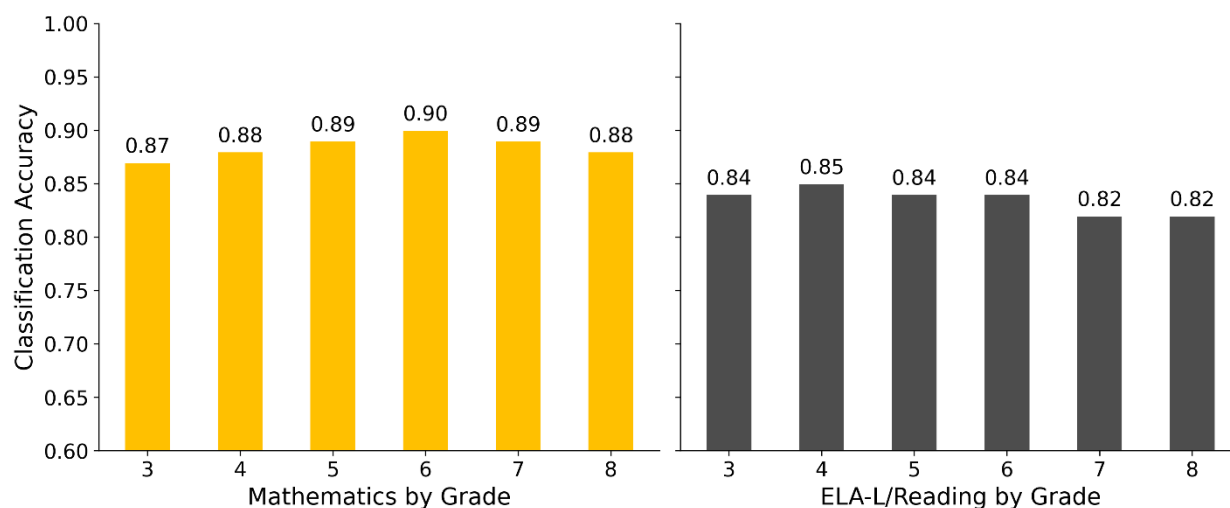
Table E.1. MAP Growth RIT Cut Scores for IAR Proficiency

Assessment		Proficient Cut Scores by Grade						
		2	3	4	5	6	7	8
Mathematics								
IAR Spring		–	732	740	740	742	745	745
MAP Growth Math	Fall	181	191	207	216	222	229	237
	Winter	190	200	215	222	229	234	242
	Spring	195	206	220	226	233	236	244
ELA-L/Reading								
IAR Spring		–	735	737	739	741	743	745
MAP Growth Reading	Fall	175	189	199	204	212	217	219
	Winter	182	195	203	207	214	218	220
	Spring	186	198	205	209	215	219	221

Educators can use these cut scores to determine whether students are on track for proficiency on the state assessment. For example, the *Proficient* cut score on the grade 3 IAR mathematics test is 732. A grade 3 student with a MAP Growth Math RIT score of 191 in the fall is likely to meet proficiency on the IAR mathematics test in the spring, whereas a grade 3 student with a RIT score lower than 191 in the fall is in jeopardy of not meeting proficiency.

As further evidence that MAP Growth scores can be used to predict students' proficiency on the state tests, NWEA calculated classification accuracy statistics that show how well the RIT scores correctly classified, or predicted, students as proficient on the IAR tests. For example, the grade 3 MAP Growth mathematics *Proficient* cut score has a 0.87 accuracy rate, meaning it accurately predicted student achievement on the state test for 87% of the sample. A high statistic indicates high accuracy. Overall, MAP Growth scores have a high accuracy rate of identifying student proficiency on the IAR tests, as illustrated in Figure E.2.

Figure E.2. Classification Accuracy of MAP Growth Tests



Please note that the purpose of this report is to explain NWEA's linking study methodology. It is not meant as the main reference for determining a student's likely performance on state summative assessments. The cut scores in this report are based on the default instructional weeks for each term (i.e., Weeks 4, 20, and 32 for fall, winter, and spring, respectively), whereas instructional weeks often vary by district. The cut scores in this report may therefore differ from the results in the NWEA reporting system that reflect the specific instructional weeks set by partners. Partners should therefore reference their MAP Growth score reports instead. Additionally, the RIT cut scores generated in this report are intended to predict students' likely performance on the state summative assessment in spring only, and caution should be exercised when using these cuts to predict performance on summative tests administered in other terms, such as fall and winter.

1. Introduction

1.1. Purpose of the Study

NWEA® is committed to providing partners with useful tools to help make inferences about student learning from MAP® Growth™ test scores. One important use of MAP Growth results is to predict a student's performance on state summative assessments at different times throughout the year. This allows educators and parents to determine if a student is on track in their learning to meet state standards by the end of the school year or, given a student's learning profile, is on track to obtain rigorous, realistic growth in their content knowledge and skills.

This report presents results from a linking study conducted by NWEA aiming to statistically connect the Rasch Unit (RIT) scores from the MAP Growth assessment with scores from the Illinois Assessment of Readiness (IAR) for mathematics and ELA-L in grades 3–8 taken during the Spring 2025 term. As mentioned earlier, the Illinois Science Assessment (ISA) for grades 5 and 8 was not included in this linking study report because the available student sample was insufficient to support reliable and valid results. MAP Growth cut scores are also included for grade 2 so that educators can track early learners' progress toward proficiency on the IAR tests by grade 3. Specifically, this report presents the following results:

1. Student sample demographics
2. Descriptive statistics of test scores
3. MAP Growth cut scores from fall, winter, and spring that correspond to the performance levels on the spring IAR assessment
4. Classification accuracy statistics to determine the degree to which MAP Growth accurately predicts student proficiency status on the IAR tests
5. The probability of achieving grade-level proficiency on the IAR assessment based on MAP Growth RIT scores from fall, winter, and spring

1.2. Assessment Overview

The IAR grades 3–8 mathematics and ELA-L tests are Illinois's state summative assessment aligned to the Illinois Learning Standards incorporating the Common Core State Standards. Based on their test scores, students are placed into one of four performance levels: *Below Proficient*, *Approaching Proficient*, *Proficient*, and *Above Proficient*. The *Proficient* cut score demarks the minimum level of achievement considered to be proficient for accountability purposes.

MAP Growth tests are an adaptive interim assessment aligned to state-specific content standards and administered in the fall, winter, and spring. Scores are reported on the RIT vertical scale with a range of 100 to 350. NWEA conducts norming studies of student and school performance on MAP Growth to aid the interpretation of scores. Growth norms provide expected score gains for a test from term to term, such as from fall to spring terms. The most recent norms study was conducted in 2025 (NWEA, 2025).

2. Methods

2.1. Data Collection

This linking study is primarily based on mathematics and ELA-L or reading data from the Spring 2025 administration of the MAP Growth and IAR assessments. Each student's state testing record was matched to their MAP Growth score based on the student's first and last names, date of birth, student ID, and other available identifying information. Only students who took both the MAP Growth and IAR mathematics and ELA-L or reading assessments in Spring 2025 were included in the study sample.

2.2. Post-Stratification Weighting

Post-stratification weights were applied to the calculations to ensure that the linking study sample represented the state's test-taking student population in terms of race, sex, and performance level. These variables were selected because they are known to be correlated with students' academic achievement and are commonly available in state summative assessment reports. The weighted sample will match the target population as closely as possible for the key demographics and performance characteristics defined by the state.

A raking procedure was used to calculate the post-stratification weights that either compensate for the underrepresentation of certain groups or attenuate the overrepresentation of certain groups. Raking uses iterative procedures to obtain weights that match sample marginal distributions to known population margins. The following steps were taken during this process:

1. Calculate marginal distributions of race, sex, and performance level for the sample and population.
2. Calculate post-stratification weights with the rake function from the survey package in R (Lumley, 2019).
3. Apply the weights to the sample before conducting the linking study analyses.

2.3. Descriptive Statistics

Descriptive statistics are provided to summarize the test scores for the MAP Growth and IAR tests, including the test score mean, standard deviation (SD), minimum, and maximum. The mean presents the average test scores across all students in the study sample, and the SD indicates the variability of test scores, revealing how students' scores are distributed around the average score, or mean. Correlation coefficients between the MAP Growth RIT scores and IAR scores are also provided to answer the question "How well do the test scores from MAP Growth (that reference the RIT scale) correlate to the scores obtained from the IAR tests (that reference some other scale) in the same subject and grade?" The correlations were calculated as:

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$

where r is the correlation coefficient, x_i and y_i are the values of the x - and y -variables in a sample, and $\bar{x}$ and $\bar{y}$ are the mean of the values of the x - and y -variables.

2.4. MAP Growth Cut Scores

MAP Growth cut scores that predict student achievement on the IAR assessment are reported for grades 3–8, as well as for grade 2 so that educators can track early learners' progress toward proficiency on the IAR tests by grade 3. Percentile ranks based on the 2025 NWEA norms are also provided. These are useful for understanding how students' scores compare with peers nationwide and the relative rigor of a state's performance level designations for its summative assessment.

The equipercentile linking method (Kolen & Brennan, 2004) was used to identify the spring MAP Growth RIT scores for grades 3–8 that correspond to the spring IAR performance level cut scores. The equipercentile linking procedure matches scores on the two scales that have the same percentile rank (i.e., the proportion of tests at or below each score). For example, let x represent a score on Test X (e.g., IAR). Its equipercentile equivalent score on Test Y (e.g., MAP Growth), $e_y(x)$, can be obtained through a cumulative-distribution-based linking function defined as:

$$e_y(x) = G^{-1}[P(x)]$$

where $e_y(x)$ is the equipercentile equivalent of score x on the IAR tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the IAR tests, and G^{-1} is the inverse of the percentile rank function for MAP Growth that indicates the score on MAP Growth corresponding to a given percentile. Polynomial loglinear pre-smoothing was applied to reduce irregularities of the score distributions and equipercentile linking curve.

The MAP Growth conditional growth norms provide students' expected score gains across terms, such as growth from fall to spring within the same grade or from spring of a lower grade to spring of the adjacent higher grade. This information was used to calculate the fall and winter cut scores for grades 3–8. The equation below was used to determine the previous term's MAP Growth score needed to reach the spring cut score, considering the expected growth associated with the previous RIT score:

$$RIT_{PredSpring} = RIT_{previous} + g$$

where:

- $RIT_{PredSpring}$ is the predicted MAP Growth spring score,
- $RIT_{previous}$ is the previous term's RIT score, and
- g is the expected growth from the previous RIT (e.g., fall or winter) to the spring RIT score.

The most recent MAP Growth conditional growth norms were used to calculate the fall, winter, and spring cuts for grade 2. Students do not begin taking the IAR assessment until grade 3. Therefore, the cut scores for grade 2 were derived from the most recent growth norms across grades and terms. To determine the spring cut scores for grade 2, the growth scores from the spring of grade 2 through the spring of grade 3 were used. The calculation of fall and winter cuts for grade 2 followed the same process as for the other grades. For example, the growth score from fall to spring in grade 2 was used to calculate the fall cuts for this grade.

2.5. Classification Accuracy

The degree to which MAP Growth predicts student proficiency status on the IAR tests can be described using classification accuracy statistics based on the MAP Growth spring RIT cut scores. The results show the proportion of students correctly classified by their RIT scores as proficient or not proficient on the IAR tests. Table 2.1 describes the classification accuracy statistics provided in this report (Pommerich et al., 2004).

Table 2.1. Description of Classification Accuracy Summary Statistics

Statistic	Description	Interpretation
Overall Classification Accuracy Rate	$(TP + TN) / (\text{total sample size})$	Proportion of the study sample whose proficiency classification on the state test was correctly predicted by MAP Growth cut scores
False Negative (FN) Rate	$FN / (FN + TP)$	Proportion of students identified by MAP Growth as not proficient in those observed as proficient on the state test
False Positive (FP) Rate	$FP / (FP + TN)$	Proportion of students identified by MAP Growth as not proficient in those observed as not proficient on the state test
Sensitivity	$TP / (TP + FN)$	Proportion of students identified by MAP Growth as proficient in those observed as such on the state test
Specificity	$TN / (TN + FP)$	Proportion of students identified by MAP Growth as not proficient in those observed as such on the state test
Precision	$TP / (TP + FP)$	Proportion of students observed as proficient on the state test in those identified as such by the MAP Growth test
Area Under the Curve (AUC)	Area under the receiver operating characteristics (ROC) curve	How well MAP Growth cut scores separate the study sample into proficiency categories that match those from the state test cut scores. An AUC at or above 0.80 is considered “good” accuracy.

Note. FP = false positives; FN = false negatives; TP = true positives; TN = true negatives.

2.6. Proficiency Projections

Given that all test scores contain measurement errors, reaching the *Proficient* RIT cut does not guarantee that the student is proficient on the state test. Instead, it can be claimed that a student meeting the RIT cut score has a 50% chance of reaching proficiency on the state test, with their chances increasing the greater their score is from the cut. The proficiency projections indicate these probabilities for various RIT scores throughout the year.

In addition to calculating the MAP Growth fall and winter cut scores (and the projected grade 2 cut scores), the MAP Growth conditional growth norms data were also used to calculate the probability of reaching proficiency on the IAR tests in the spring based on a student’s RIT scores from fall and winter:

$$Pr(\text{Achieving proficiency in spring} | \text{starting RIT}) = \Phi \left(\frac{RIT_{previous} + g - RIT_{SpringCut}}{SD} \right)$$

where:

- Φ is the standard normal cumulative distribution function,
- $RIT_{previous}$ is the student's RIT score in fall or winter,
- g is the expected growth from the previous RIT (e.g., fall or winter) to the spring RIT,
- $RIT_{SpringCut}$ is the MAP Growth *Proficient* cut score for spring, and
- SD is the conditional standard deviation of the expected growth, g .

The equation below was used to estimate the probability of a student achieving proficiency on the IAR tests based on their spring RIT score (RIT_{Spring}):

$$Pr(\text{Achieving proficiency in spring} \mid \text{spring RIT}) = \Phi\left(\frac{RIT_{Spring} - RIT_{SpringCut}}{SE}\right)$$

where SE is the standard error of measurement for MAP Growth.

3. Results

3.1. Study Sample

Only students who have scores on both the MAP Growth and IAR assessments in Spring 2025 for mathematics and ELA-L or reading were included in the study sample. The mathematics and ELA-L or reading data were collected from 32 districts and 163 schools in Illinois. Table 3.1 presents the distributions of students by race, sex, and performance level in the original unweighted study sample. Table 3.2 presents the distributions of the target population of students who took the IAR tests. Since the original study sample is different from the target IAR population, post-stratification weights were applied. Table 3.3 presents the demographic distributions of the sample after weighting, which are almost identical to the IAR student population distributions.

Table 3.1. Linking Study Sample Demographics (Unweighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
Mathematics							
Total N		6,110	6,024	6,002	5,765	5,774	5,416
Race	Asian	6.8	7.5	6.0	7.8	7.1	4.8
	Black/African American	13.3	13.1	13.3	12.6	12.5	11.7
	Hispanic/Latino	24.1	24.9	26.0	25.4	26.6	27.7
	Other	7.4	7.3	7.7	7.0	7.9	7.8
	White/Caucasian	48.4	47.2	47.0	47.1	46.0	48.0
Sex	Female	48.5	49.1	49.8	48.9	48.9	48.8
	Male	51.5	50.9	50.2	51.1	51.1	51.2
Performance Level	<i>Below Proficient</i>	18.4	20.0	24.2	23.3	20.0	28.7
	<i>Approaching Proficient</i>	25.9	32.1	34.3	39.4	39.6	39.0
	<i>Proficient</i>	41.9	40.1	35.2	26.5	32.8	26.3
	<i>Above Proficient</i>	13.8	7.9	6.3	10.8	7.6	5.9
ELA-L/Reading							
Total N		6,030	6,069	6,171	5,736	5,864	5,875
Race	Asian	6.8	7.5	6.7	7.9	7.9	6.8
	Black/African American	13.4	12.8	12.8	12.3	12.2	11.0
	Hispanic/Latino	23.6	25.5	26.3	25.8	26.6	26.5
	Other	7.5	7.3	7.6	7.0	7.9	7.8
	White/Caucasian	48.5	46.8	46.6	47.0	45.3	47.8
Sex	Female	48.5	49.0	49.6	48.9	48.7	48.5
	Male	51.5	51.0	50.4	51.1	51.3	51.5
Performance Level	<i>Below Proficient</i>	12.1	10.9	12.9	13.8	16.4	16.2
	<i>Approaching Proficient</i>	35.0	33.4	27.1	31.1	30.8	27.5
	<i>Proficient</i>	37.0	39.1	42.4	41.0	39.7	44.6
	<i>Above Proficient</i>	15.9	16.7	17.6	14.1	13.1	11.7

Note. "Other" includes Pacific Islander, American Indian, Middle Eastern or North African (MENA), and Two or More Races.

Table 3.2. IAR Student Population Demographics

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
Mathematics							
Total N		127,793	126,388	126,374	125,647	127,346	130,571
Race	Asian	5.5	5.7	5.6	5.7	5.8	5.6
	Black/African American	16.5	16.5	16.4	16.2	16.1	16.2
	Hispanic/Latino	26.6	27.1	27.0	27.0	27.6	28.1
	Other	5.5	5.4	5.2	5.1	4.9	4.7
	White/Caucasian	45.9	45.3	45.8	45.9	45.7	45.4
Sex	Female	49.3	49.1	48.9	49.0	49.0	48.9
	Male	50.7	50.9	51.1	51.0	51.0	51.1
Performance Level	<i>Below Proficient</i>	21.1	23.3	26.8	26.0	21.5	28.7
	<i>Approaching Proficient</i>	29.3	34.2	36.7	41.3	41.5	38.4
	<i>Proficient</i>	39.6	36.3	30.4	24.4	30.0	25.0
	<i>Above Proficient</i>	10.0	6.1	6.1	8.3	7.0	8.0
ELA-L/Reading							
Total N		127,920	126,520	126,483	125,809	127,568	130,840
Race	Asian	5.5	5.7	5.6	5.7	5.8	5.6
	Black/African American	16.5	16.6	16.4	16.2	16.1	16.2
	Hispanic/Latino	26.6	27.1	27.1	27.0	27.6	28.1
	Other	5.5	5.4	5.2	5.1	4.9	4.7
	White/Caucasian	45.8	45.3	45.8	45.9	45.7	45.4
Sex	Female	49.3	49.1	48.9	49.0	49.0	48.9
	Male	50.7	50.9	51.1	51.0	51.0	51.1
Performance Level	<i>Below Proficient</i>	14.1	12.6	13.7	13.9	15.1	15.4
	<i>Approaching Proficient</i>	38.7	36.2	31.7	31.8	30.4	27.9
	<i>Proficient</i>	35.4	37.9	41.7	41.5	42.6	46.2
	<i>Above Proficient</i>	11.9	13.3	12.9	12.8	11.9	10.6

Note. “Other” includes Pacific Islander, American Indian, Middle Eastern or North African (MENA), and Two or More Races.

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
Mathematics							
Total N		6,110	6,018	6,002	5,765	5,774	5,421
Race	Asian	5.5	5.7	5.6	5.7	5.7	5.6
	Black/African American	16.5	16.5	16.4	16.2	16.1	16.2
	Hispanic/Latino	26.6	27.1	27.0	27.0	27.6	28.1
	Other	5.5	5.4	5.2	5.1	4.9	4.7
	White/Caucasian	45.9	45.3	45.8	45.9	45.7	45.4

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
Sex	Female	49.3	49.1	48.9	49.0	49.0	48.9
	Male	50.7	50.9	51.1	51.0	51.0	51.1
Performance Level	<i>Below Proficient</i>	21.1	23.3	26.8	26.0	21.5	28.7
	<i>Approaching Proficient</i>	29.3	34.2	36.7	41.3	41.5	38.4
	<i>Proficient</i>	39.6	36.3	30.4	24.4	30.0	25.0
	<i>Above Proficient</i>	10.0	6.1	6.1	8.3	7.0	8.0
ELA-L/Reading							
Total N		6,036	6,069	6,171	5,736	5,864	5,881
Race	Asian	5.5	5.7	5.6	5.7	5.8	5.6
	Black/African American	16.5	16.6	16.4	16.2	16.1	16.2
	Hispanic/Latino	26.6	27.1	27.1	27.0	27.6	28.1
	Other	5.5	5.4	5.2	5.1	4.9	4.7
	White/Caucasian	45.8	45.3	45.8	45.9	45.7	45.4
Sex	Female	49.3	49.1	48.9	49.0	49.0	48.9
	Male	50.7	50.9	51.1	51.0	51.0	51.1
Performance Level	<i>Below Proficient</i>	14.1	12.6	13.7	13.9	15.1	15.4
	<i>Approaching Proficient</i>	38.7	36.2	31.7	31.8	30.4	27.9
	<i>Proficient</i>	35.4	37.9	41.7	41.5	42.6	46.2
	<i>Above Proficient</i>	11.9	13.3	12.9	12.8	11.9	10.6

Note. "Other" includes Pacific Islander, American Indian, Middle Eastern or North African (MENA), and Two or More Races.

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and IAR test scores from Spring 2025 for mathematics and ELA-L or reading, including the correlation coefficients (r) between them. The correlations between the scores range from 0.86 to 0.89 for mathematics and 0.79 to 0.84 for ELA-L or reading. These values indicate a high positive correlation between MAP Growth and IAR scores. These findings provide important validity evidence supporting the use of MAP Growth scores as predictors of student performance on the IAR assessment.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	<i>r</i>	IAR				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
Mathematics										
3	6,110	0.88	732.9	36.4	650	850	204.0	17.2	125	270
4	6,018	0.89	732.5	33.4	650	850	214.5	18.7	132	289
5	6,002	0.88	729.0	33.2	650	850	218.5	19.5	133	281
6	5,765	0.89	727.6	32.4	650	850	224.4	19.7	154	315
7	5,774	0.88	736.2	28.9	650	850	229.3	20.0	162	311
8	5,421	0.86	728.7	40.2	650	850	234.9	20.6	151	328
ELA-L/Reading										
3	6,036	0.82	731.4	41.2	650	850	195.0	18.0	143	239
4	6,069	0.83	737.9	36.6	650	850	203.3	17.8	141	247
5	6,171	0.82	741.1	35.7	650	850	209.0	17.2	141	256

Grade	N	r	IAR				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
6	5,736	0.84	742.5	33.2	650	850	214.7	15.9	163	259
7	5,864	0.80	745.8	33.4	650	850	219.3	15.5	163	260
8	5,881	0.79	748.4	38.4	650	850	222.0	15.2	167	272

Note. SD = standard deviation; Min. = minimum; Max. = maximum.

3.3. MAP Growth Cut Scores

Table 3.5 and Table 3.6 present the IAR scale score ranges and the corresponding MAP Growth RIT cut scores and percentile ranges by content area and grade. Bold numbers indicate the cut scores considered to be proficient for accountability purposes. These tables can be used to predict a student's likely performance level on the IAR spring assessment when MAP Growth is taken in the fall, winter, or spring. For example, a grade 3 student who obtained a MAP Growth mathematics RIT score of 191 in the fall is likely to achieve *Proficient* performance on the IAR mathematics test. The same is true for a grade 3 student who obtained a MAP Growth mathematics RIT score of 200 in the winter. The winter cut score is higher than the fall cut score because of expected growth during the school year as students receive more instruction.

Within this report, the cut scores for fall and winter are derived from the spring cuts and the typical growth scores from fall-to-spring or winter-to-spring. The typical growth scores are based on the default instructional weeks for each term (i.e., Weeks 4, 20, and 32 for fall, winter, and spring, respectively). Since instructional weeks often vary by district, the cut scores in this report may differ slightly from the MAP Growth score reports that reflect instructional weeks set by partners. If the actual instructional weeks deviate substantially from the default ones, a student's expected performance level could be different from the projections presented in this report. Partners are therefore encouraged to use the projected performance level in students' score reports, since these reflect the specific instructional weeks set by partners.

Table 3.5. MAP Growth Cut Scores—Mathematics

IAR Mathematics								
Grade	Below Proficient		Approaching Proficient		Proficient		Above Proficient	
3	650–704		705–731		732–780		781–850	
4	650–707		708–739		740–783		784–850	
5	650–708		709–739		740–781		782–850	
6	650–704		705–741		742–772		773–850	
7	650–711		712–744		745–780		781–850	
8	650–704		705–744		745–790		791–850	
MAP Growth Math								
Grade	Below Proficient		Approaching Proficient		Proficient		Above Proficient	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
Fall								
2	100–163	1–27	164–180	28–69	181–204	70–97	205–350	98–99
3	100–177	1–34	178–190	35–66	191–210	67–95	211–350	96–99
4	100–188	1–30	189–206	31–72	207–227	73–96	228–350	97–99
5	100–197	1–30	198–215	31–72	216–236	73–96	237–350	97–99
6	100–201	1–29	202–221	30–76	222–239	77–96	240–350	97–99
7	100–205	1–25	206–228	26–74	229–251	75–97	252–350	98–99
8	100–217	1–40	218–236	41–78	237–256	79–96	257–350	97–99
Winter								
2	100–172	1–29	173–189	30–70	190–212	71–97	213–350	98–99
3	100–185	1–33	186–199	34–66	200–219	67–94	220–350	95–99
4	100–195	1–30	196–214	31–72	215–235	73–96	236–350	97–99
5	100–203	1–32	204–221	33–71	222–243	72–96	244–350	97–99
6	100–206	1–29	207–228	30–76	229–246	77–95	247–350	96–99
7	100–209	1–26	210–233	27–75	234–256	76–97	257–350	98–99
8	100–221	1–41	222–241	42–79	242–262	80–96	263–350	97–99
Spring								
2	100–179	1–31	180–194	32–67	195–215	68–95	216–350	96–99
3	100–192	1–35	193–205	36–65	206–224	66–93	225–350	94–99
4	100–201	1–32	202–219	33–70	220–240	71–95	241–350	96–99
5	100–207	1–32	208–225	33–70	226–247	71–95	248–350	96–99
6	100–211	1–32	212–232	33–74	233–250	75–94	251–350	95–99
7	100–212	1–28	213–235	29–73	236–258	74–96	259–350	97–99
8	100–224	1–41	225–243	42–76	244–263	77–95	264–350	96–99

Table 3.6. MAP Growth Cut Scores—ELA-L/Reading

IAR ELA-L								
Grade	Below Proficient		Approaching Proficient		Proficient		Above Proficient	
3	650–684		685–734		735–779		780–850	
4	650–694		695–736		737–779		780–850	
5	650–699		700–738		739–779		780–850	
6	650–704		705–740		741–779		780–850	
7	650–709		710–742		743–784		785–850	
8	650–709		710–744		745–794		795–850	
MAP Growth Reading								
Grade	Below Proficient		Approaching Proficient		Proficient		Above Proficient	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
Fall								
2	100–144	1–6	145–174	7–60	175–198	61–94	199–350	95–99
3	100–163	1–12	164–188	13–58	189–208	59–90	209–350	91–99
4	100–173	1–10	174–198	11–56	199–218	57–89	219–350	90–99
5	100–182	1–11	183–203	12–50	204–224	51–88	225–350	89–99
6	100–190	1–13	191–211	14–56	212–229	57–88	230–350	89–99
7	100–198	1–20	199–216	21–60	217–233	61–89	234–350	90–99
8	100–203	1–24	204–218	25–57	219–236	58–88	237–350	89–99
Winter								
2	100–151	1–6	152–181	7–61	182–204	62–94	205–350	95–99
3	100–169	1–13	170–194	14–60	195–213	61–90	214–350	91–99
4	100–177	1–10	178–202	11–57	203–220	58–88	221–350	89–99
5	100–186	1–12	187–206	13–50	207–225	51–86	226–350	87–99
6	100–193	1–15	194–213	16–57	214–230	58–88	231–350	89–99
7	100–199	1–20	200–217	21–59	218–234	60–89	235–350	90–99
8	100–205	1–25	206–219	26–56	220–237	57–88	238–350	89–99
Spring								
2	100–159	1–10	160–185	11–59	186–206	60–92	207–350	93–99
3	100–175	1–15	176–197	16–58	198–214	59–87	215–350	88–99
4	100–182	1–13	183–204	14–56	205–221	57–86	222–350	87–99
5	100–190	1–15	191–208	16–50	209–226	51–85	227–350	86–99
6	100–196	1–17	197–214	18–56	215–231	57–87	232–350	88–99
7	100–202	1–23	203–218	24–59	219–235	60–88	236–350	89–99
8	100–207	1–27	208–220	28–56	221–238	57–88	239–350	89–99

3.4. Classification Accuracy

Table 3.7 presents the classification accuracy summary statistics, including the overall classification accuracy rates. These results indicate how well MAP Growth spring RIT scores predict proficiency on the IAR tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.87 to 0.90 for mathematics and 0.82 to 0.85 for ELA-L or reading. These values suggest that the RIT cut scores are effective at classifying students as proficient or not proficient on the IAR assessment.

Although the results show that MAP Growth scores can be used to predict student proficiency on the IAR tests with relatively high accuracy, there is a notable limitation to how these results should be used and interpreted. The IAR and MAP Growth assessments are designed for different purposes and measure slightly different constructs even within the same content area. Therefore, scores on these tests cannot be assumed to be interchangeable. MAP Growth may not be used as a substitute for the state tests and vice versa.

Table 3.7. Classification Accuracy Results

Grade	N	Cut Score		Class. Accuracy	Rate		Sensitivity	Specificity	Precision	AUC
		MAP Growth	IAR		FP	FN				
Mathematics										
3	6,110	206	732	0.87	0.13	0.14	0.86	0.87	0.87	0.87
4	6,018	220	740	0.88	0.10	0.15	0.85	0.90	0.86	0.87
5	6,002	226	740	0.89	0.10	0.14	0.86	0.90	0.84	0.88
6	5,765	233	742	0.90	0.08	0.15	0.85	0.92	0.84	0.88
7	5,774	236	745	0.89	0.10	0.13	0.87	0.90	0.84	0.88
8	5,421	244	745	0.88	0.09	0.17	0.83	0.91	0.81	0.87
ELA-L/Reading										
3	6,036	198	735	0.84	0.17	0.16	0.84	0.83	0.82	0.84
4	6,069	205	737	0.85	0.17	0.13	0.87	0.83	0.84	0.85
5	6,171	209	739	0.84	0.21	0.13	0.87	0.79	0.84	0.83
6	5,736	215	741	0.84	0.19	0.15	0.85	0.81	0.85	0.83
7	5,864	219	743	0.82	0.22	0.15	0.85	0.78	0.82	0.81
8	5,881	221	745	0.82	0.23	0.15	0.85	0.77	0.83	0.81

Note. Class. Accuracy = overall classification accuracy rate; FP = false positives; FN = false negatives; AUC = area under the ROC curve.

3.5. Proficiency Projections

Table 3.8 and Table 3.9 present the estimated probability of achieving proficiency performance on the IAR tests based on RIT scores from fall, winter, or spring. Due to measurement error in all test scores, the *Proficient* MAP Growth cuts do not guarantee that a student will reach proficiency on the IAR tests. Instead, they indicate a 50% chance that a student will reach a particular performance level. Therefore, these projections further elucidate the *Proficient* cut scores by providing the likelihood of reaching proficiency on the IAR assessment in the spring at a given percentile throughout the year.

For example, the spring grade 3 *Proficient* RIT cut score for mathematics is 206, which indicates a 50% chance of achieving proficiency in the spring, as shown in Table 3.8. An educator can also use the table to estimate that a grade 3 student who obtained a MAP Growth mathematics score of 195 in the fall has a 70% probability of reaching *Proficient* or higher on the IAR test in the spring.

Table 3.8. Proficiency Projections Based on RIT Scores—Mathematics

Grade	Start Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
2	5	195	147	No	<0.01	155	No	<0.01	161	No	<0.01
	10	195	153	No	<0.01	161	No	<0.01	167	No	<0.01
	15	195	157	No	<0.01	165	No	<0.01	171	No	<0.01
	20	195	160	No	0.01	168	No	0.01	174	No	<0.01
	25	195	162	No	0.02	171	No	0.01	177	No	<0.01
	30	195	165	No	0.03	173	No	0.02	179	No	<0.01
	35	195	167	No	0.06	175	No	0.04	181	No	<0.01
	40	195	169	No	0.09	177	No	0.07	183	No	<0.01
	45	195	171	No	0.14	179	No	0.09	185	No	<0.01
	50	195	173	No	0.20	181	No	0.14	187	No	0.01
	55	195	175	No	0.23	183	No	0.21	189	No	0.04
	60	195	177	No	0.31	185	No	0.30	192	No	0.20
	65	195	179	No	0.40	187	No	0.40	194	No	0.39
	70	195	181	Yes	0.50	189	No	0.45	196	Yes	0.61
	75	195	183	Yes	0.60	192	Yes	0.60	198	Yes	0.80
	80	195	186	Yes	0.69	194	Yes	0.70	201	Yes	0.96
	85	195	189	Yes	0.80	197	Yes	0.82	204	Yes	0.99
	90	195	193	Yes	0.89	201	Yes	0.91	208	Yes	>0.99
	95	195	198	Yes	0.97	207	Yes	0.98	214	Yes	>0.99
3	5	206	158	No	<0.01	166	No	<0.01	171	No	<0.01
	10	206	164	No	<0.01	172	No	<0.01	177	No	<0.01
	15	206	168	No	<0.01	176	No	<0.01	181	No	<0.01
	20	206	171	No	0.01	179	No	<0.01	185	No	<0.01
	25	206	174	No	0.01	182	No	0.01	188	No	<0.01
	30	206	176	No	0.03	184	No	0.02	190	No	<0.01
	35	206	178	No	0.05	186	No	0.04	193	No	<0.01
	40	206	180	No	0.08	189	No	0.08	195	No	<0.01

Grade	Start Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	45	206	182	No	0.13	191	No	0.13	197	No	0.01
	50	206	184	No	0.19	193	No	0.17	199	No	0.02
	55	206	186	No	0.26	195	No	0.24	201	No	0.08
	60	206	188	No	0.35	197	No	0.34	203	No	0.20
	65	206	190	No	0.45	199	No	0.45	206	Yes	0.50
	70	206	192	Yes	0.55	201	Yes	0.55	208	Yes	0.72
	75	206	195	Yes	0.70	204	Yes	0.71	211	Yes	0.92
	80	206	197	Yes	0.78	206	Yes	0.80	213	Yes	0.98
	85	206	200	Yes	0.87	210	Yes	0.89	217	Yes	>0.99
	90	206	204	Yes	0.95	214	Yes	0.96	221	Yes	>0.99
	95	206	210	Yes	0.99	220	Yes	>0.99	227	Yes	>0.99
4	5	220	171	No	<0.01	176	No	<0.01	180	No	<0.01
	10	220	177	No	<0.01	183	No	<0.01	187	No	<0.01
	15	220	181	No	<0.01	187	No	<0.01	191	No	<0.01
	20	220	184	No	<0.01	190	No	<0.01	195	No	<0.01
	25	220	186	No	<0.01	193	No	<0.01	198	No	<0.01
	30	220	189	No	0.01	196	No	0.01	201	No	<0.01
	35	220	191	No	0.02	198	No	0.01	203	No	<0.01
	40	220	193	No	0.04	200	No	0.02	206	No	<0.01
	45	220	195	No	0.07	202	No	0.04	208	No	<0.01
	50	220	197	No	0.11	204	No	0.08	210	No	<0.01
	55	220	199	No	0.16	207	No	0.16	212	No	0.01
	60	220	201	No	0.23	209	No	0.20	215	No	0.08
	65	220	203	No	0.31	211	No	0.28	217	No	0.20
	70	220	205	No	0.40	213	No	0.39	220	Yes	0.50
	75	220	208	Yes	0.55	216	Yes	0.56	222	Yes	0.72
	80	220	210	Yes	0.65	219	Yes	0.72	225	Yes	0.92
	85	220	214	Yes	0.81	222	Yes	0.84	229	Yes	0.99

Grade	Start Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	90	220	217	Yes	0.89	226	Yes	0.94	233	Yes	>0.99
	95	220	223	Yes	0.98	232	Yes	0.99	240	Yes	>0.99
5	5	226	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	226	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	226	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	226	193	No	<0.01	197	No	<0.01	200	No	<0.01
	25	226	195	No	<0.01	200	No	<0.01	204	No	<0.01
	30	226	198	No	0.01	203	No	<0.01	206	No	<0.01
	35	226	200	No	0.02	205	No	0.01	209	No	<0.01
	40	226	202	No	0.04	207	No	0.02	211	No	<0.01
	45	226	204	No	0.06	210	No	0.04	214	No	<0.01
	50	226	206	No	0.10	212	No	0.08	216	No	<0.01
	55	226	208	No	0.15	214	No	0.13	218	No	0.01
	60	226	210	No	0.22	216	No	0.20	221	No	0.08
	65	226	212	No	0.30	219	No	0.33	223	No	0.20
	70	226	215	No	0.45	221	No	0.44	226	Yes	0.50
	75	226	217	Yes	0.55	224	Yes	0.61	228	Yes	0.72
	80	226	220	Yes	0.70	226	Yes	0.72	232	Yes	0.96
	85	226	223	Yes	0.81	230	Yes	0.87	235	Yes	0.99
	90	226	227	Yes	0.92	234	Yes	0.96	240	Yes	>0.99
	95	226	233	Yes	0.99	240	Yes	0.99	246	Yes	>0.99
6	5	233	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	233	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	233	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	233	197	No	<0.01	201	No	<0.01	205	No	<0.01
	25	233	199	No	<0.01	204	No	<0.01	208	No	<0.01
	30	233	202	No	<0.01	207	No	<0.01	211	No	<0.01
	35	233	204	No	0.01	209	No	<0.01	213	No	<0.01

Grade	Start Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	40	233	206	No	0.02	212	No	0.01	216	No	<0.01
	45	233	208	No	0.03	214	No	0.02	218	No	<0.01
	50	233	210	No	0.05	216	No	0.04	220	No	<0.01
	55	233	212	No	0.09	218	No	0.07	223	No	<0.01
	60	233	214	No	0.13	220	No	0.11	225	No	0.01
	65	233	216	No	0.19	223	No	0.21	227	No	0.04
	70	233	219	No	0.31	225	No	0.29	230	No	0.20
	75	233	221	No	0.45	228	No	0.45	233	Yes	0.50
	80	233	224	Yes	0.60	231	Yes	0.61	236	Yes	0.80
	85	233	227	Yes	0.73	234	Yes	0.75	239	Yes	0.96
	90	233	231	Yes	0.87	238	Yes	0.89	244	Yes	>0.99
	95	233	237	Yes	0.97	245	Yes	0.99	251	Yes	>0.99
7	5	236	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	236	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	236	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	236	203	No	<0.01	206	No	<0.01	208	No	<0.01
	25	236	206	No	<0.01	209	No	<0.01	211	No	<0.01
	30	236	208	No	0.01	211	No	<0.01	214	No	<0.01
	35	236	211	No	0.01	214	No	0.01	216	No	<0.01
	40	236	213	No	0.03	216	No	0.01	219	No	<0.01
	45	236	215	No	0.04	219	No	0.03	221	No	<0.01
	50	236	217	No	0.07	221	No	0.06	224	No	<0.01
	55	236	219	No	0.11	223	No	0.10	226	No	<0.01
	60	236	222	No	0.20	226	No	0.18	229	No	0.02
	65	236	224	No	0.27	228	No	0.26	231	No	0.08
	70	236	226	No	0.36	231	No	0.35	234	No	0.28
	75	236	229	Yes	0.50	233	No	0.45	237	Yes	0.61
	80	236	232	Yes	0.64	236	Yes	0.60	240	Yes	0.87

Grade	Start Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	85	236	235	Yes	0.77	240	Yes	0.78	244	Yes	0.99
	90	236	239	Yes	0.89	245	Yes	0.93	249	Yes	>0.99
	95	236	246	Yes	0.98	251	Yes	0.99	256	Yes	>0.99
8	5	244	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	244	199	No	<0.01	201	No	<0.01	203	No	<0.01
	15	244	203	No	<0.01	206	No	<0.01	208	No	<0.01
	20	244	207	No	<0.01	210	No	<0.01	212	No	<0.01
	25	244	210	No	<0.01	213	No	<0.01	215	No	<0.01
	30	244	212	No	<0.01	216	No	<0.01	218	No	<0.01
	35	244	215	No	0.01	219	No	<0.01	221	No	<0.01
	40	244	217	No	0.01	221	No	0.01	224	No	<0.01
	45	244	220	No	0.03	224	No	0.02	226	No	<0.01
	50	244	222	No	0.04	226	No	0.03	229	No	<0.01
	55	244	224	No	0.07	228	No	0.05	231	No	<0.01
	60	244	227	No	0.13	231	No	0.10	234	No	<0.01
	65	244	229	No	0.18	233	No	0.16	237	No	0.02
	70	244	232	No	0.28	236	No	0.26	239	No	0.08
	75	244	234	No	0.37	239	No	0.35	242	No	0.28
	80	244	237	Yes	0.50	242	Yes	0.50	246	Yes	0.72
	85	244	241	Yes	0.68	246	Yes	0.69	250	Yes	0.96
	90	244	246	Yes	0.85	251	Yes	0.87	255	Yes	>0.99
	95	244	252	Yes	0.96	258	Yes	0.98	262	Yes	>0.99

Note. Prob. = Probability.

Table 3.9. Proficiency Projections Based on RIT Scores—ELA-L/Reading

Grade	Stat Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
2	5	186	142	No	<0.01	149	No	<0.01	153	No	<0.01
	10	186	148	No	0.01	155	No	<0.01	159	No	<0.01
	15	186	152	No	0.01	159	No	0.01	164	No	<0.01
	20	186	156	No	0.04	162	No	0.02	167	No	<0.01
	25	186	159	No	0.06	165	No	0.04	170	No	<0.01
	30	186	161	No	0.09	168	No	0.07	173	No	<0.01
	35	186	163	No	0.13	170	No	0.11	175	No	<0.01
	40	186	166	No	0.19	172	No	0.17	177	No	0.01
	45	186	168	No	0.25	175	No	0.24	180	No	0.04
	50	186	170	No	0.33	177	No	0.32	182	No	0.13
	55	186	172	No	0.37	179	No	0.41	184	No	0.28
	60	186	174	No	0.46	181	No	0.45	186	Yes	0.50
	65	186	177	Yes	0.59	183	Yes	0.55	188	Yes	0.72
	70	186	179	Yes	0.63	186	Yes	0.68	191	Yes	0.92
	75	186	182	Yes	0.75	188	Yes	0.76	193	Yes	0.98
	80	186	184	Yes	0.81	191	Yes	0.83	196	Yes	>0.99
	85	186	188	Yes	0.89	194	Yes	0.91	200	Yes	>0.99
	90	186	192	Yes	0.95	199	Yes	0.96	204	Yes	>0.99
	95	186	198	Yes	0.99	205	Yes	0.99	210	Yes	>0.99
3	5	198	155	No	<0.01	160	No	<0.01	164	No	<0.01
	10	198	161	No	<0.01	167	No	<0.01	171	No	<0.01
	15	198	166	No	0.01	171	No	0.01	175	No	<0.01
	20	198	169	No	0.02	175	No	0.02	179	No	<0.01
	25	198	172	No	0.05	178	No	0.04	182	No	<0.01
	30	198	175	No	0.07	180	No	0.06	184	No	<0.01
	35	198	178	No	0.13	183	No	0.12	187	No	<0.01
	40	198	180	No	0.18	185	No	0.14	189	No	0.01

Grade	Stat Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	45	198	182	No	0.22	188	No	0.24	192	No	0.04
	50	198	185	No	0.33	190	No	0.32	194	No	0.13
	55	198	187	No	0.41	192	No	0.41	196	No	0.28
	60	198	189	Yes	0.50	194	No	0.45	198	Yes	0.50
	65	198	192	Yes	0.59	197	Yes	0.59	201	Yes	0.80
	70	198	194	Yes	0.67	199	Yes	0.68	203	Yes	0.92
	75	198	197	Yes	0.75	202	Yes	0.80	206	Yes	0.99
	80	198	200	Yes	0.84	205	Yes	0.86	209	Yes	>0.99
	85	198	204	Yes	0.91	209	Yes	0.94	213	Yes	>0.99
	90	198	208	Yes	0.96	213	Yes	0.97	217	Yes	>0.99
	95	198	215	Yes	0.99	220	Yes	>0.99	224	Yes	>0.99
4	5	205	166	No	<0.01	170	No	<0.01	173	No	<0.01
	10	205	173	No	<0.01	177	No	<0.01	179	No	<0.01
	15	205	177	No	0.01	181	No	0.01	184	No	<0.01
	20	205	181	No	0.03	184	No	0.02	187	No	<0.01
	25	205	184	No	0.06	187	No	0.04	190	No	<0.01
	30	205	186	No	0.08	190	No	0.08	193	No	<0.01
	35	205	189	No	0.14	193	No	0.13	195	No	<0.01
	40	205	191	No	0.20	195	No	0.19	198	No	0.02
	45	205	194	No	0.28	197	No	0.27	200	No	0.08
	50	205	196	No	0.36	199	No	0.35	202	No	0.20
	55	205	198	No	0.45	202	No	0.45	204	No	0.39
	60	205	200	Yes	0.55	204	Yes	0.55	207	Yes	0.72
	65	205	203	Yes	0.64	206	Yes	0.65	209	Yes	0.87
	70	205	205	Yes	0.72	209	Yes	0.77	211	Yes	0.96
	75	205	208	Yes	0.83	211	Yes	0.81	214	Yes	0.99
	80	205	211	Yes	0.88	214	Yes	0.90	217	Yes	>0.99
	85	205	215	Yes	0.95	218	Yes	0.96	220	Yes	>0.99

Grade	Stat Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	90	205	219	Yes	0.98	222	Yes	0.99	225	Yes	>0.99
	95	205	226	Yes	>0.99	229	Yes	>0.99	231	Yes	>0.99
5	5	209	175	No	<0.01	178	No	<0.01	180	No	<0.01
	10	209	181	No	0.01	184	No	0.01	186	No	<0.01
	15	209	186	No	0.03	189	No	0.02	191	No	<0.01
	20	209	189	No	0.06	192	No	0.05	194	No	<0.01
	25	209	192	No	0.09	195	No	0.08	197	No	<0.01
	30	209	195	No	0.16	197	No	0.12	199	No	<0.01
	35	209	197	No	0.23	200	No	0.22	202	No	0.02
	40	209	199	No	0.27	202	No	0.30	204	No	0.08
	45	209	201	No	0.36	204	No	0.35	206	No	0.20
	50	209	204	Yes	0.50	206	No	0.45	208	No	0.39
	55	209	206	Yes	0.55	209	Yes	0.60	211	Yes	0.72
	60	209	208	Yes	0.64	211	Yes	0.65	213	Yes	0.87
	65	209	210	Yes	0.73	213	Yes	0.74	215	Yes	0.96
	70	209	213	Yes	0.80	215	Yes	0.82	217	Yes	0.99
	75	209	215	Yes	0.86	218	Yes	0.90	220	Yes	>0.99
	80	209	218	Yes	0.93	221	Yes	0.95	223	Yes	>0.99
	85	209	222	Yes	0.97	224	Yes	0.98	226	Yes	>0.99
	90	209	226	Yes	0.99	228	Yes	0.99	230	Yes	>0.99
	95	209	232	Yes	>0.99	235	Yes	>0.99	237	Yes	>0.99
6	5	215	181	No	<0.01	183	No	<0.01	185	No	<0.01
	10	215	187	No	<0.01	189	No	<0.01	191	No	<0.01
	15	215	191	No	0.01	193	No	0.01	195	No	<0.01
	20	215	195	No	0.03	197	No	0.03	198	No	<0.01
	25	215	198	No	0.07	199	No	0.05	201	No	<0.01
	30	215	200	No	0.09	202	No	0.08	203	No	<0.01
	35	215	202	No	0.14	204	No	0.13	206	No	0.01

Grade	Stat Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	40	215	205	No	0.23	206	No	0.19	208	No	0.02
	45	215	207	No	0.27	209	No	0.31	210	No	0.08
	50	215	209	No	0.36	211	No	0.35	212	No	0.20
	55	215	211	No	0.45	213	No	0.45	214	No	0.39
	60	215	213	Yes	0.55	215	Yes	0.55	216	Yes	0.61
	65	215	215	Yes	0.60	217	Yes	0.65	218	Yes	0.80
	70	215	218	Yes	0.73	219	Yes	0.74	221	Yes	0.96
	75	215	220	Yes	0.80	222	Yes	0.84	223	Yes	0.99
	80	215	223	Yes	0.89	225	Yes	0.92	226	Yes	>0.99
	85	215	226	Yes	0.94	228	Yes	0.96	229	Yes	>0.99
	90	215	231	Yes	0.99	232	Yes	0.99	233	Yes	>0.99
	95	215	237	Yes	>0.99	238	Yes	>0.99	239	Yes	>0.99
7	5	219	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	219	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	219	195	No	0.01	196	No	0.01	197	No	<0.01
	20	219	198	No	0.02	200	No	0.03	201	No	<0.01
	25	219	201	No	0.05	202	No	0.03	203	No	<0.01
	30	219	204	No	0.10	205	No	0.07	206	No	<0.01
	35	219	206	No	0.12	207	No	0.11	208	No	<0.01
	40	219	208	No	0.18	210	No	0.20	211	No	0.01
	45	219	210	No	0.24	212	No	0.23	213	No	0.04
	50	219	212	No	0.32	214	No	0.31	215	No	0.13
	55	219	214	No	0.36	216	No	0.40	217	No	0.28
	60	219	217	Yes	0.50	218	Yes	0.50	219	Yes	0.50
	65	219	219	Yes	0.59	220	Yes	0.60	221	Yes	0.72
	70	219	221	Yes	0.68	223	Yes	0.73	224	Yes	0.92
	75	219	224	Yes	0.79	225	Yes	0.80	226	Yes	0.98
	80	219	226	Yes	0.85	228	Yes	0.89	229	Yes	>0.99

Grade	Stat Percentile	Spring RIT Cut	Fall			Winter			Spring		
			RIT	Projected Proficiency		RIT	Projected Proficiency		RIT	Projected Proficiency	
				Proficient	Prob.		Proficient	Prob.		Proficient	Prob.
	85	219	230	Yes	0.94	231	Yes	0.94	232	Yes	>0.99
	90	219	234	Yes	0.98	235	Yes	0.98	237	Yes	>0.99
	95	219	240	Yes	>0.99	241	Yes	>0.99	243	Yes	>0.99
8	5	221	188	No	<0.01	189	No	<0.01	190	No	<0.01
	10	221	194	No	0.01	195	No	<0.01	196	No	<0.01
	15	221	198	No	0.02	199	No	0.01	200	No	<0.01
	20	221	201	No	0.04	203	No	0.04	203	No	<0.01
	25	221	204	No	0.07	205	No	0.05	206	No	<0.01
	30	221	207	No	0.11	208	No	0.10	209	No	<0.01
	35	221	209	No	0.15	210	No	0.14	211	No	<0.01
	40	221	211	No	0.21	213	No	0.20	213	No	0.01
	45	221	214	No	0.29	215	No	0.28	216	No	0.08
	50	221	216	No	0.37	217	No	0.36	218	No	0.20
	55	221	218	No	0.45	219	No	0.45	220	No	0.39
	60	221	220	Yes	0.55	221	Yes	0.55	222	Yes	0.61
	65	221	222	Yes	0.63	223	Yes	0.64	224	Yes	0.80
	70	221	225	Yes	0.75	226	Yes	0.76	227	Yes	0.96
	75	221	227	Yes	0.82	228	Yes	0.83	229	Yes	0.99
	80	221	230	Yes	0.89	231	Yes	0.90	232	Yes	>0.99
	85	221	233	Yes	0.94	235	Yes	0.96	236	Yes	>0.99
	90	221	238	Yes	0.98	239	Yes	0.99	240	Yes	>0.99
	95	221	244	Yes	>0.99	245	Yes	>0.99	246	Yes	>0.99

Note. Prob. = Probability.

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