

# **Predicting Proficiency on the South Carolina College- and Career-Ready Assessment (SC READY) Based on NWEA MAP Growth Scores**

July 2025

NWEA Psychometrics and Analytics

## Linking Study Updates

Date	Description
2016-12	Initial linking study conducted for South Carolina in mathematics & ELA/reading in grades 3–8 using Spring 2015 data.
2018-02-07	Updated results for mathematics & ELA/reading in grades 3–8 using Spring 2017 data.
2020-07-23	Incorporated the 2020 MAP Growth norms using Spring 2020 data for mathematics & ELA/reading in grades 3–8.
2023-04-20	Updated results for mathematics & ELA/reading in grades 3–8 using Spring 2022 data.
2025-07	Updated the linking study based on the 2025 norms.

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## Table of Contents

Executive Summary .....	1
1. Introduction .....	4
1.1. Purpose of the Study .....	4
1.2. Assessment Overview.....	4
2. Methods .....	5
2.1. Data Collection.....	5
2.2. Post-Stratification Weighting .....	5
2.3. Descriptive Statistics .....	5
2.4. MAP Growth Cut Scores .....	6
2.5. Classification Accuracy .....	7
2.6. Proficiency Projections.....	7
3. Results.....	9
3.1. Study Sample .....	9
3.2. Descriptive Statistics .....	11
3.3. MAP Growth Cut Scores .....	12
3.4. Third Grade Retention.....	15
3.5. Classification Accuracy .....	15
3.6. Proficiency Projections.....	16
References .....	27

## List of Tables

Table E.1. MAP Growth RIT Cut Scores for SC READY Proficiency .....	2
Table 2.1. Description of Classification Accuracy Summary Statistics.....	7
Table 3.1. Linking Study Sample Demographics (Unweighted) .....	9
Table 3.2. Spring 2022 SC READY Student Population Demographics .....	10
Table 3.3. Linking Study Sample Demographics (Weighted).....	11
Table 3.4. Descriptive Statistics of Test Scores.....	12
Table 3.5. MAP Growth Cut Scores—Mathematics.....	13
Table 3.6. MAP Growth Cut Scores—ELA/Reading .....	14
Table 3.7. MAP Growth Score Predictions for Level 1 Sublevels—ELA/Reading .....	15
Table 3.8. Classification Accuracy Results.....	16
Table 3.9. Proficiency Projections Based on RIT Scores—Mathematics .....	17
Table 3.10. Proficiency Projections Based on RIT Scores—ELA/Reading .....	22

## List of Figures

Figure E.1. Correlations Between MAP Growth and SC READY Test Scores .....	1
Figure E.2. Accuracy of MAP Growth Classifications .....	3

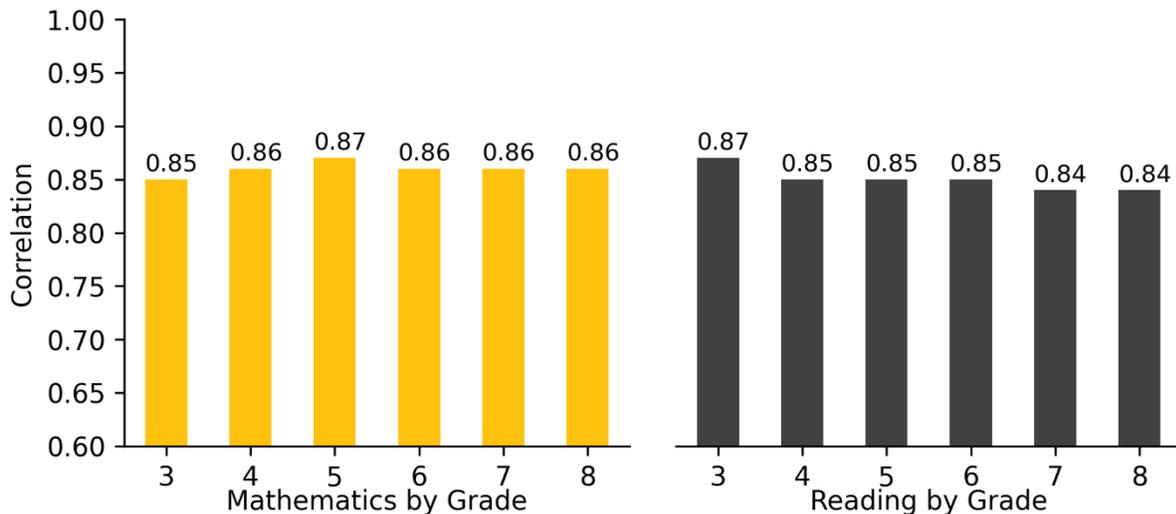
## Executive Summary

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 South Carolina College- and Career-Ready Assessments (SC READY) described in this report provides RIT cut scores for the fall, winter, and spring MAP Growth administrations that correspond to the SC READY performance levels for mathematics and English language arts (ELA)/reading in grades 3–8.

The linking study is based on test scores from students in grades 3–8 who took both the MAP Growth and SC READY assessments in mathematics and ELA/reading in Spring 2022. The linking study sample included 80,475 students across 23 districts and 253 schools in South Carolina. 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 SC READY assessments are aligned on the same or similar set of content standards to warrant a connection. The link between the two tests was further investigated by calculating the Pearson correlation coefficients that relate the relationship between the specific MAP Growth and SC READY test scores. A correlation of  $r \geq 0.70$  is considered a “high” correlation and acceptable for publishing. This indicates that students who perform well on one assessment also tend to perform well on the other, and vice versa. A perfect positive correlation is 1.00. The correlations between the MAP Growth and SC READY test scores from Spring 2022, as shown in Figure E.1, are consistent with expectations that MAP Growth is a good assessment for predicting performance on the SC READY.

**Figure E.1. Correlations Between MAP Growth and SC READY 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 SC READY 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 SC READY test by grade 3, alongside all other students, early in the year. These cut scores were derived from the spring cuts<sup>1</sup> 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 SC READY assessment, Table E.1 presents the *Meets Expectations* cut scores that indicate the minimum score a student must get to be considered proficient (reaching *Meets Expectations* or *Exceeds Expectations*).

**Table E.1. MAP Growth RIT Cut Scores for SC READY Proficiency**

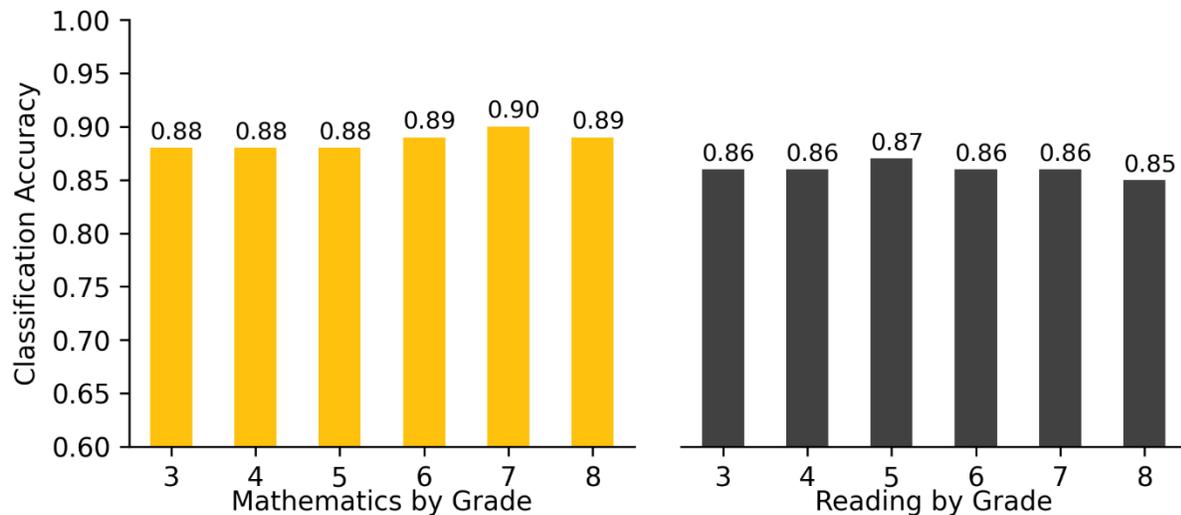
Assessment		<i>Meets Expectations</i> Cut Scores by Grade						
		2	3	4	5	6	7	8
<b>Mathematics</b>								
SC READY Spring		–	438	482	536	543	578	615
MAP Growth Mathematics	Fall	175	186	203	213	217	227	234
	Winter	183	195	211	219	223	232	239
	Spring	189	201	216	223	227	234	241
<b>ELA/Reading</b>								
SC READY Spring		–	452	509	558	576	615	643
MAP Growth Reading	Fall	176	191	200	210	215	219	222
	Winter	183	196	204	213	216	220	223
	Spring	187	199	206	214	217	221	224

Educators can use these cut scores to determine whether students are on track for proficiency on the state assessments. For example, the *Meets Expectations* cut score on the grade 3 SC READY mathematics test is 438. A grade 3 student with a MAP Growth mathematics RIT score of 186 in the fall is likely to meet expectations on the SC READY mathematics test in the spring, whereas a grade 3 student with a RIT score lower than 186 in the fall is in jeopardy of not meeting proficiency.

<sup>1</sup> To enhance content validity, NWEA developed an Enhanced Item-Selection Algorithm (EISA) for the MAP Growth assessment to prioritize grade-level content. A pilot study (Meyer et al., 2023) showed that students taking MAP Growth with EISA demonstrated higher average math scores compared with those taking traditional MAP Growth. To improve score comparability, NWEA (Lewis & Kuhfeld, 2024) developed concordance tables to adjust mathematics scores from traditional assessments to align with scores from MAP Growth with EISA, or vice versa. Given that the data for this study were collected from traditional MAP Growth tests but that the results will be used for MAP Growth with EISA, the spring cuts for mathematics were adjusted using the concordance tables before being used to derive other cut scores. This score adjustment will become unnecessary for future linking studies once the new data from EISA tests are collected.

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 SC READY tests.<sup>2</sup> For example, the grade 3 MAP Growth mathematics *Meets Expectations* cut score has a 0.88 accuracy rate, meaning it accurately predicted student achievement on the state test for 88% of the sample. A high statistic indicates high accuracy. Overall, MAP Growth scores have a high accuracy rate of identifying student proficiency on the SC READY tests, as illustrated in Figure E.2.

**Figure E.2. Accuracy of MAP Growth Classifications**



**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 the state summative assessments. The cut scores in this report are based on the default instructional weeks most encountered 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.

<sup>2</sup> The classification accuracy calculations for the mathematics spring cuts were based on the concorded cut scores.

# 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 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 to statistically connect Rasch Unit (RIT) scores from the MAP Growth assessments with scores from the South Carolina Career- and College-Ready Assessments (SC READY) for mathematics and English language arts (ELA)/reading in grades 3–8 taken during the Spring 2022 term. MAP Growth cut scores are also included for grade 2 so that educators can track early learners' progress toward proficiency on the SC READY test 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 SC READY assessments
4. Classification accuracy statistics to determine the degree to which MAP Growth accurately predicts student proficiency status on the SC READY tests
5. The probability of achieving grade-level proficiency on the SC READY assessments based on MAP Growth RIT scores from fall, winter, and spring

The linking study has been updated since the previous published version to incorporate the new 2025 NWEA MAP Growth norms (NWEA, 2025).

## 1.2. Assessment Overview

The SC READY grades 3–8 mathematics and ELA/reading tests are South Carolina's state summative assessments aligned to the South Carolina College- and Career-Ready Standards. Based on their test scores, students are placed into one of four performance levels: *Does Not Meet Expectations*, *Approaches Expectations*, *Meets Expectations*, and *Exceeds Expectations*. The *Meets Expectations* cut score demarks the minimum level of achievement considered to be proficient for accountability purposes.

MAP Growth tests are adaptive interim assessments 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 assessments 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 based on data from the Spring 2022 administrations of the MAP Growth and SC READY assessments. NWEA requested that South Carolina districts recruited to participate in the study share their student and score data for the target term. Districts also permitted NWEA to use their students' MAP Growth scores from the NWEA in-house database. Once state score information was available to NWEA, 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 SC READY assessments in Spring 2022 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 often 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 both the MAP Growth and SC READY assessments, 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 SC READY 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 SC READY test (that references some other scale) in the same subject?" The correlations were calculated as follows:

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

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 SC READY assessments are reported for grades 3–8, as well as for grade 2 so that educators can track early learners' progress toward proficiency on the SC READY test 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 SC READY 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., SC READY). 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 SC READY tests on the scale of MAP Growth,  $P(x)$  is the percentile rank of a given score on the SC READY 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.

Students do not take the SC READY assessment in grade 2. Therefore, the MAP Growth conditional growth norms were also used to estimate the fall, winter, and spring cuts in grade 2 that are needed to meet SC READY proficiency in grade 3. To derive the grade 2 spring cut scores, the growth score from spring of one year to the next was used (i.e., the growth score from spring of grade 2 to spring of grade 3). The estimations of fall and winter cuts followed the same process as for grades 3–8. For example, the projected growth from fall to spring in grade 2 was used to calculate the fall cuts for grade 2.

## 2.5. Classification Accuracy

The degree to which MAP Growth predicts student proficiency status on the SC READY 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 SC READY 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 *Meets Expectations* RIT cut does not guarantee that the student is proficient at 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 SC READY test in the spring based on a student’s RIT scores from fall and winter:

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

where:

- $\Phi$  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 *Meets Expectations* 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 *Meets Expectations* performance on the SC READY test 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 took both the MAP Growth and SC READY assessments in Spring 2022 for the target subjects were included in the sample. Data were collected from 23 districts and 253 schools in South Carolina. Table 3.1 presents the distributions of student 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 SC READY tests. Since the original study sample is different from the target SC READY population, post-stratification weights were applied. Table 3.3 presents the demographic distributions of the final analytic sample after weighting, which are almost identical to the SC READY student population distributions.

**Table 3.1. Linking Study Sample Demographics (Unweighted)**

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
<b>Mathematics</b>							
Total N		12,784	12,733	12,810	12,955	13,341	13,191
Race	AIAN	0.4	0.4	0.4	0.4	0.6	0.4
	Asian/NHPI	1.4	1.5	1.1	1.4	1.3	1.3
	Black	28.6	28.5	28.3	28.8	28.6	29.8
	Hispanic	3.9	3.9	4.2	4.1	4.4	4.4
	Two or More	6.8	6.6	6.9	6.7	5.9	5.7
	White	58.9	59.2	59.1	58.6	59.2	58.4
Sex	Female	49.0	48.8	48.7	49.1	49.1	49.5
	Male	51.0	51.2	51.3	50.9	50.9	50.5
Performance Level	<i>Does Not Meet</i>	26.0	27.8	29.2	34.1	34.7	39.3
	<i>Approaches</i>	23.6	29.2	28.3	30.9	33.9	30.0
	<i>Meets</i>	27.5	20.1	24.2	19.4	15.4	15.1
	<i>Exceeds</i>	23.0	22.9	18.3	15.6	16.0	15.6
<b>ELA/Reading</b>							
Total N		14,157	12,310	12,360	12,439	12,806	12,881
Race	AIAN	0.4	0.4	0.3	0.4	0.6	0.4
	Asian/NHPI	1.5	1.5	1.0	1.4	1.3	1.4
	Black	31.4	27.4	27.2	27.5	27.4	28.2
	Hispanic	5.2	3.9	4.4	4.1	4.4	4.3
	Two or More	6.8	6.7	6.9	6.7	6.1	5.9
	White	54.7	60.1	60.2	59.8	60.2	59.8
Sex	Female	49.0	48.7	48.5	48.8	48.7	49.1
	Male	51.0	51.3	51.5	51.2	51.3	50.9
Performance Level	<i>Does Not Meet</i>	28.9	28.5	22.7	24.0	27.4	28.4
	<i>Approaches</i>	24.0	22.0	29.8	32.9	30.0	26.0
	<i>Meets</i>	23.6	20.6	28.1	24.9	23.1	28.3
	<i>Exceeds</i>	23.6	28.9	19.5	18.2	19.5	17.3

Note. AIAN = American Indian or Alaska Native; NHPI = Native Hawaiian or Other Pacific Islander.

**Table 3.2. Spring 2022 SC READY Student Population Demographics**

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
<b>Mathematics</b>							
Total N		55,896	56,404	57,066	57,662	60,155	60,987
Race	AIAN	0.3	0.3	0.2	0.3	0.3	0.3
	Asian/NHPI	2.0	2.0	1.8	1.8	1.8	1.8
	Black	31.2	31.4	31.6	32.4	32.4	33.2
	Hispanic	12.1	12.3	12.3	12.6	12.0	12.3
	Two or More	6.1	5.9	5.7	5.4	5.3	4.8
	White	48.3	48.1	48.3	47.5	48.3	47.7
Sex	Female	49.1	49.2	48.8	49.1	49.4	49.3
	Male	50.9	50.8	51.2	50.9	50.6	50.7
Performance Level	<i>Does Not Meet</i>	26.8	28.7	29.5	33.8	35.8	40.8
	<i>Approaches</i>	22.2	27.9	27.2	30.5	33.3	29.0
	<i>Meets</i>	26.6	19.6	23.6	19.3	15.3	14.1
	<i>Exceeds</i>	24.4	23.7	19.7	16.5	15.5	16.0
<b>ELA</b>							
Total N		55,905	56,397	57,065	57,566	60,109	60,920
Race	AIAN	0.3	0.3	0.2	0.3	0.3	0.3
	Asian/NHPI	2.0	2.0	1.8	1.8	1.8	1.8
	Black	31.2	31.4	31.6	32.3	32.3	33.1
	Hispanic	12.1	12.3	12.3	12.6	12.0	12.3
	Two or More	6.1	5.9	5.7	5.4	5.3	4.9
	White	48.3	48.2	48.3	47.6	48.4	47.7
Sex	Female	49.1	49.3	48.8	49.1	49.4	49.3
	Male	50.9	50.7	51.2	50.9	50.6	50.7
Performance Level	<i>Does Not Meet</i>	29.0	28.0	22.1	23.1	26.9	27.2
	<i>Approaches</i>	23.0	21.6	29.7	31.9	29.8	26.9
	<i>Meets</i>	23.6	19.8	27.9	25.4	23.1	29.2
	<i>Exceeds</i>	24.4	30.6	20.4	19.7	20.1	16.7

Note. AIAN = American Indian or Alaska Native; NHPI = Native Hawaiian or Other Pacific Islander.

**Table 3.3. Linking Study Sample Demographics (Weighted)**

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
<b>Mathematics</b>							
Total N		12,784	12,720	12,810	12,968	13,328	13,178
Race	AIAN	0.3	0.3	0.2	0.3	0.3	0.3
	Asian/NHPI	2.0	2.0	1.8	1.8	1.8	1.8
	Black	31.2	31.4	31.6	32.4	32.4	33.2
	Hispanic	12.1	12.3	12.3	12.6	12.0	12.3
	Two or More	6.1	5.9	5.7	5.4	5.3	4.8
	White	48.3	48.1	48.3	47.5	48.3	47.7
Sex	Female	49.1	49.2	48.8	49.1	49.4	49.3
	Male	50.9	50.8	51.2	50.9	50.6	50.7
Performance Level	<i>Does Not Meet</i>	26.8	28.7	29.5	33.8	35.8	40.8
	<i>Approaches</i>	22.2	27.9	27.2	30.5	33.3	29.0
	<i>Meets</i>	26.6	19.6	23.6	19.3	15.3	14.1
	<i>Exceeds</i>	24.4	23.7	19.7	16.5	15.5	16.0
<b>ELA/Reading</b>							
Total N		14,157	12,310	12,372	12,451	12,793	12,881
Race	AIAN	0.3	0.3	0.2	0.3	0.3	0.3
	Asian/NHPI	2.0	2.0	1.8	1.8	1.8	1.8
	Black	31.2	31.4	31.6	32.3	32.3	33.1
	Hispanic	12.1	12.3	12.3	12.6	12.0	12.3
	Two or More	6.1	5.9	5.7	5.4	5.3	4.9
	White	48.3	48.2	48.3	47.6	48.4	47.7
Sex	Female	49.1	49.3	48.8	49.1	49.4	49.3
	Male	50.9	50.7	51.2	50.9	50.6	50.7
Performance Level	<i>Does Not Meet</i>	29.0	28.0	22.1	23.1	26.9	27.2
	<i>Approaches</i>	23.0	21.6	29.7	31.9	29.8	26.9
	<i>Meets</i>	23.6	19.8	27.9	25.4	23.1	29.2
	<i>Exceeds</i>	24.4	30.6	20.4	19.7	20.1	16.7

Note. AIAN = American Indian or Alaska Native; NHPI = Native Hawaiian or Other Pacific Islander.

### 3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and SC READY test scores from Spring 2022, including the correlation coefficients ( $r$ ) between them. The correlations between the scores range from 0.85 to 0.87 for mathematics and 0.84 to 0.87 for ELA/reading. These values indicate a high positive correlation among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the SC READY assessments.

**Table 3.4. Descriptive Statistics of Test Scores**

Grade	N	r	SC READY				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
<b>Mathematics</b>										
3	12,784	0.85	451.5	120.0	100	825	198.5	15.0	131	273
4	12,720	0.86	477.7	112.5	214	850	207.8	16.1	133	267
5	12,810	0.87	525.1	113.8	120	875	215.4	17.5	144	282
6	12,968	0.86	518.1	109.5	128	900	217.3	16.8	154	284
7	13,328	0.86	542.2	103.7	147	925	222.5	18.1	156	292
8	13,178	0.86	572.1	108.8	280	950	226.3	19.3	158	295
<b>ELA/Reading</b>										
3	14,157	0.87	442.2	124.9	100	825	195.9	17.5	143	239
4	12,310	0.85	509.7	124.2	186	850	204.2	16.6	146	249
5	12,372	0.85	547.5	111.1	227	875	210.2	16.1	146	266
6	12,451	0.85	555.8	117.5	128	900	212.8	16.0	156	260
7	12,793	0.84	595.3	117.5	315	925	216.3	16.4	153	266
8	12,881	0.84	620.5	116.9	215	950	219.7	16.5	159	269

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

### 3.3. MAP Growth Cut Scores

Table 3.5 and Table 3.6 present the SC READY 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 SC READY spring assessments 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 186 in the fall is likely to achieve *Meets Expectations* performance on the SC READY mathematics test. The same is true for a grade 3 student who obtained a MAP Growth mathematics RIT score of 195 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 most encountered for each term (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 they reflect the specific instructional weeks set by partners.

**Table 3.5. MAP Growth Cut Scores—Mathematics**

SC READY Mathematics								
Grade	Does Not Meet		Approaches		Meets		Exceeds	
3	100–359		360–437		438–543		544–825	
4	100–401		402–481		482–562		563–850	
5	100–447		448–535		536–621		622–875	
6	100–453		454–542		543–627		628–900	
7	100–487		488–577		578–649		650–925	
8	100–526		527–614		615–683		684–950	
MAP Growth Mathematics								
Grade	Does Not Meet		Approaches		Meets		Exceeds	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
<b>Fall</b>								
2	100–158	1–17	159–174	18–54	175–190	55–87	191–350	88–99
3	100–173	1–25	174–185	26–54	186–198	55–82	199–350	83–99
4	100–189	1–32	190–202	33–64	203–213	65–85	214–350	86–99
5	100–196	1–27	197–212	28–65	213–223	66–85	224–350	86–99
6	100–201	1–29	202–216	30–65	217–227	66–86	228–350	87–99
7	100–208	1–31	209–226	32–71	227–238	72–89	239–350	90–99
8	100–216	1–38	217–233	39–73	234–243	74–87	244–350	88–99
<b>Winter</b>								
2	100–166	1–17	167–182	18–54	183–198	55–86	199–350	87–99
3	100–181	1–25	182–194	26–55	195–207	56–82	208–350	83–99
4	100–196	1–32	197–210	33–64	211–221	65–84	222–350	85–99
5	100–202	1–30	203–218	31–65	219–229	66–84	230–350	85–99
6	100–206	1–29	207–222	30–65	223–234	66–85	235–350	86–99
7	100–212	1–32	213–231	33–72	232–243	73–88	244–350	89–99
8	100–220	1–39	221–238	40–74	239–248	75–87	249–350	88–99
<b>Spring</b>								
2	100–174	1–21	175–188	22–53	189–203	54–84	204–350	85–99
3	100–188	1–27	189–200	28–53	201–213	54–80	214–350	81–99
4	100–202	1–34	203–215	35–62	216–226	63–82	227–350	83–99
5	103–206	1–30	207–222	31–64	223–233	65–83	234–350	84–99
6	102–211	1–32	212–226	33–63	227–238	64–83	239–350	84–99
7	105–215	1–33	216–233	34–69	234–245	70–86	246–350	87–99
8	105–223	1–39	224–240	40–72	241–250	73–85	251–350	86–99

**Table 3.6. MAP Growth Cut Scores—ELA/Reading**

SC READY ELA									
Grade	Does Not Meet		Approaches		Meets		Exceeds		
3	100–358		359–451		<b>452–539</b>		540–825		
4	100–418		419–508		<b>509–592</b>		593–850		
5	100–449		450–557		<b>558–652</b>		653–875		
6	100–454		455–575		<b>576–667</b>		668–900		
7	100–511		512–614		<b>615–704</b>		705–925		
8	100–537		538–642		<b>643–737</b>		738–950		
MAP Growth Reading									
Grade	Does Not Meet		Approaches		Meets		Exceeds		
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	
<b>Fall</b>									
2	100–158	1–25	159–175	26–63	<b>176–191</b>	64–89	192–350	90–99	
3	100–175	1–31	176–190	32–62	<b>191–202</b>	63–83	203–350	84–99	
4	100–187	1–32	188–199	33–58	<b>200–210</b>	59–79	211–350	80–99	
5	100–191	1–24	192–209	25–63	<b>210–221</b>	64–84	222–350	85–99	
6	100–195	1–21	196–214	22–63	<b>215–224</b>	64–82	225–350	83–99	
7	100–202	1–28	203–218	29–64	<b>219–228</b>	65–83	229–350	84–99	
8	100–206	1–29	207–221	30–63	<b>222–232</b>	64–83	233–350	84–99	
<b>Winter</b>									
2	100–165	1–26	166–182	27–63	<b>183–197</b>	64–88	198–350	89–99	
3	100–180	1–30	181–195	31–62	<b>196–207</b>	63–83	208–350	84–99	
4	100–190	1–31	191–203	32–59	<b>204–213</b>	60–78	214–350	79–99	
5	100–194	1–24	195–212	25–64	<b>213–222</b>	65–82	223–350	83–99	
6	100–197	1–21	198–215	22–61	<b>216–225</b>	62–81	226–350	82–99	
7	100–204	1–29	205–219	30–63	<b>220–229</b>	64–82	230–350	83–99	
8	100–207	1–29	208–222	30–63	<b>223–233</b>	64–83	234–350	84–99	
<b>Spring</b>									
2	100–171	1–28	172–186	29–61	<b>187–200</b>	62–86	201–350	87–99	
3	100–185	1–32	186–198	33–60	<b>199–209</b>	61–80	210–350	81–99	
4	100–194	1–33	195–205	34–58	<b>206–214</b>	59–76	215–350	77–99	
5	100–197	1–26	198–213	27–62	<b>214–223</b>	63–81	224–350	82–99	
6	100–200	1–24	201–216	25–61	<b>217–226</b>	62–81	227–350	82–99	
7	100–206	1–31	207–220	32–63	<b>221–230</b>	64–82	231–350	83–99	
8	100–209	1–31	210–223	32–63	<b>224–234</b>	64–83	235–350	84–99	

### 3.4. Third Grade Retention

Beginning in 2017–2018, a student must be retained in grade 3 if the student fails to demonstrate reading proficiency at the end of grade 3, as indicated by scoring at the lowest achievement level on the SC READY reading assessment (Level 1: *Does Not Meet Expectations*). A student may be exempt for good cause from the mandatory retention but shall continue to receive instructional support and services and reading intervention appropriate for their age and reading level. Table 3.7 presents the MAP Growth reading RIT cut scores corresponding to the Level 1 sublevels.

**Table 3.7. MAP Growth Score Predictions for Level 1 Sublevels—ELA/Reading**

SC READY ELA				
Grade	Level 1: Not Met 1		Level 1: Above Not Met 1	
3	100–275		276–358	
MAP Growth Reading				
Grade	Level 1: Not Met 1		Level 1: Above Not Met 1	
	RIT	Percentile	RIT	Percentile
Spring				
3	100–170	1–9	171–185	10–31

### 3.5. Classification Accuracy

Table 3.8 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 SC READY tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.88 to 0.90 for mathematics and 0.85 to 0.87 for ELA/reading. These values suggest that the RIT cut scores are good at classifying students as proficient or not proficient on the SC READY assessments.

Although the results show that MAP Growth scores can be used to predict student proficiency with relatively high accuracy on the SC READY tests, there is a notable limitation to how these results should be used and interpreted. The SC READY 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 3.8. Classification Accuracy Results**

Grade	N	Cut Score		Class. Accuracy	Rate		Sensitivity	Specificity	Precision	AUC
		MAP Growth	SC READY		FP	FN				
<b>Mathematics</b>										
3	12,784	199	438	0.88	0.17	0.08	0.92	0.83	0.85	0.95
4	12,720	211	482	0.88	0.14	0.09	0.91	0.86	0.84	0.96
5	12,810	220	536	0.88	0.09	0.16	0.84	0.91	0.87	0.95
6	12,968	224	543	0.89	0.09	0.14	0.86	0.91	0.84	0.96
7	13,328	232	578	0.90	0.07	0.16	0.84	0.93	0.84	0.96
8	13,178	237	615	0.89	0.07	0.21	0.79	0.93	0.83	0.95
<b>ELA/Reading</b>										
3	14,157	199	452	0.86	0.15	0.12	0.88	0.85	0.85	0.94
4	12,310	206	509	0.86	0.16	0.11	0.89	0.84	0.85	0.94
5	12,372	214	558	0.87	0.12	0.15	0.85	0.88	0.87	0.94
6	12,451	217	576	0.86	0.13	0.15	0.85	0.87	0.84	0.94
7	12,793	221	615	0.86	0.12	0.16	0.84	0.88	0.84	0.94
8	12,881	224	643	0.85	0.12	0.18	0.82	0.88	0.85	0.93

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

### 3.6. Proficiency Projections

Table 3.9 and Table 3.10 present the estimated probability of achieving *Meets Expectations* performance on the SC READY tests based on RIT scores from fall, winter, or spring. Due to measurement error in all test scores, the *Meets Expectations* MAP Growth cuts do not guarantee that a student will reach proficiency on the SC READY. Instead, they indicate a 50% chance that a student will reach a particular performance level. Therefore, these projections further elucidate the *Meet Expectations* cut scores by providing the likelihood of reaching proficiency on the SC READY in the spring at a given percentile throughout the year.

For example, the spring grade 3 *Meets Expectations* RIT cut score for mathematics is 201, which indicates a 50% chance of achieving proficiency in the spring, as shown in Table 3.9. An educator can also use the table to estimate that a grade 3 student who obtained a MAP Growth mathematics score of 186 in the fall has a 50% probability of reaching *Meets Expectations* or higher on the SC READY test in the spring.

**Table 3.9. Proficiency Projections Based on RIT Scores—Mathematics**

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
2	5	189	147	No	<0.01	155	No	<0.01	161	No	<0.01
	10	189	153	No	0.01	161	No	<0.01	167	No	<0.01
	15	189	157	No	0.03	165	No	0.02	171	No	<0.01
	20	189	160	No	0.06	168	No	0.04	174	No	<0.01
	25	189	162	No	0.09	171	No	0.07	177	No	<0.01
	30	189	165	No	0.14	173	No	0.12	179	No	<0.01
	35	189	167	No	0.2	175	No	0.18	181	No	0.01
	40	189	169	No	0.27	177	No	0.25	183	No	0.04
	45	189	171	No	0.36	179	No	0.3	185	No	0.13
	50	189	173	No	0.45	181	No	0.4	187	No	0.28
	55	189	175	Yes	0.5	183	Yes	0.5	189	Yes	0.5
	60	189	177	Yes	0.6	185	Yes	0.6	192	Yes	0.8
	65	189	179	Yes	0.69	187	Yes	0.7	194	Yes	0.92
	70	189	181	Yes	0.77	189	Yes	0.75	196	Yes	0.98
	75	189	183	Yes	0.84	192	Yes	0.86	198	Yes	0.99
	80	189	186	Yes	0.89	194	Yes	0.91	201	Yes	>0.99
85	189	189	Yes	0.94	197	Yes	0.96	204	Yes	>0.99	
90	189	193	Yes	0.97	201	Yes	0.98	208	Yes	>0.99	
95	189	198	Yes	0.99	207	Yes	>0.99	214	Yes	>0.99	
3	5	201	158	No	<0.01	166	No	<0.01	171	No	<0.01
	10	201	164	No	<0.01	172	No	<0.01	177	No	<0.01
	15	201	168	No	0.01	176	No	0.01	181	No	<0.01
	20	201	171	No	0.03	179	No	0.02	185	No	<0.01
	25	201	174	No	0.06	182	No	0.05	188	No	<0.01
	30	201	176	No	0.1	184	No	0.08	190	No	<0.01
	35	201	178	No	0.15	186	No	0.13	193	No	0.01
	40	201	180	No	0.22	189	No	0.24	195	No	0.04

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	45	201	182	No	0.3	191	No	0.34	197	No	0.13
	50	201	184	No	0.4	193	No	0.39	199	No	0.28
	55	201	186	Yes	0.5	195	Yes	0.5	201	Yes	0.5
	60	201	188	Yes	0.6	197	Yes	0.61	203	Yes	0.72
	65	201	190	Yes	0.7	199	Yes	0.71	206	Yes	0.92
	70	201	192	Yes	0.78	201	Yes	0.8	208	Yes	0.98
	75	201	195	Yes	0.87	204	Yes	0.89	211	Yes	>0.99
	80	201	197	Yes	0.92	206	Yes	0.94	213	Yes	>0.99
	85	201	200	Yes	0.96	210	Yes	0.97	217	Yes	>0.99
	90	201	204	Yes	0.99	214	Yes	0.99	221	Yes	>0.99
	95	201	210	Yes	>0.99	220	Yes	>0.99	227	Yes	>0.99
4	5	216	171	No	<0.01	176	No	<0.01	180	No	<0.01
	10	216	177	No	<0.01	183	No	<0.01	187	No	<0.01
	15	216	181	No	<0.01	187	No	<0.01	191	No	<0.01
	20	216	184	No	0.01	190	No	<0.01	195	No	<0.01
	25	216	186	No	0.02	193	No	0.01	198	No	<0.01
	30	216	189	No	0.04	196	No	0.02	201	No	<0.01
	35	216	191	No	0.07	198	No	0.04	203	No	<0.01
	40	216	193	No	0.11	200	No	0.08	206	No	<0.01
	45	216	195	No	0.16	202	No	0.13	208	No	0.01
	50	216	197	No	0.23	204	No	0.2	210	No	0.04
	55	216	199	No	0.31	207	No	0.33	212	No	0.13
	60	216	201	No	0.4	209	No	0.39	215	No	0.39
	65	216	203	Yes	0.5	211	Yes	0.5	217	Yes	0.61
	70	216	205	Yes	0.6	213	Yes	0.61	220	Yes	0.87
	75	216	208	Yes	0.73	216	Yes	0.76	222	Yes	0.96
80	216	210	Yes	0.81	219	Yes	0.87	225	Yes	0.99	
85	216	214	Yes	0.91	222	Yes	0.94	229	Yes	>0.99	

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	90	216	217	Yes	0.96	226	Yes	0.98	233	Yes	>0.99
	95	216	223	Yes	0.99	232	Yes	>0.99	240	Yes	>0.99
5	5	223	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	223	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	223	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	223	193	No	<0.01	197	No	<0.01	200	No	<0.01
	25	223	195	No	0.01	200	No	<0.01	204	No	<0.01
	30	223	198	No	0.03	203	No	0.01	206	No	<0.01
	35	223	200	No	0.05	205	No	0.02	209	No	<0.01
	40	223	202	No	0.08	207	No	0.04	211	No	<0.01
	45	223	204	No	0.12	210	No	0.1	214	No	0.01
	50	223	206	No	0.19	212	No	0.16	216	No	0.02
	55	223	208	No	0.26	214	No	0.24	218	No	0.08
	60	223	210	No	0.35	216	No	0.33	221	No	0.28
	65	223	212	No	0.45	219	Yes	0.5	223	Yes	0.5
	70	223	215	Yes	0.6	221	Yes	0.61	226	Yes	0.8
	75	223	217	Yes	0.7	224	Yes	0.76	228	Yes	0.92
	80	223	220	Yes	0.81	226	Yes	0.84	232	Yes	0.99
	85	223	223	Yes	0.9	230	Yes	0.94	235	Yes	>0.99
90	223	227	Yes	0.96	234	Yes	0.98	240	Yes	>0.99	
95	223	233	Yes	>0.99	240	Yes	>0.99	246	Yes	>0.99	
6	5	227	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	227	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	227	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	227	197	No	0.01	201	No	<0.01	205	No	<0.01
	25	227	199	No	0.01	204	No	0.01	208	No	<0.01
	30	227	202	No	0.03	207	No	0.02	211	No	<0.01
	35	227	204	No	0.05	209	No	0.03	213	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	40	227	206	No	0.09	212	No	0.07	216	No	<0.01
	45	227	208	No	0.13	214	No	0.11	218	No	0.01
	50	227	210	No	0.19	216	No	0.17	220	No	0.02
	55	227	212	No	0.27	218	No	0.25	223	No	0.13
	60	227	214	No	0.36	220	No	0.34	225	No	0.28
	65	227	216	No	0.45	223	Yes	0.5	227	Yes	0.5
	70	227	219	Yes	0.6	225	Yes	0.61	230	Yes	0.8
	75	227	221	Yes	0.73	228	Yes	0.75	233	Yes	0.96
	80	227	224	Yes	0.84	231	Yes	0.86	236	Yes	0.99
	85	227	227	Yes	0.91	234	Yes	0.93	239	Yes	>0.99
	90	227	231	Yes	0.97	238	Yes	0.98	244	Yes	>0.99
	95	227	237	Yes	>0.99	245	Yes	>0.99	251	Yes	>0.99
7	5	234	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	234	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	234	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	234	203	No	<0.01	206	No	<0.01	208	No	<0.01
	25	234	206	No	0.01	209	No	<0.01	211	No	<0.01
	30	234	208	No	0.01	211	No	<0.01	214	No	<0.01
	35	234	211	No	0.03	214	No	0.01	216	No	<0.01
	40	234	213	No	0.04	216	No	0.02	219	No	<0.01
	45	234	215	No	0.07	219	No	0.06	221	No	<0.01
	50	234	217	No	0.11	221	No	0.1	224	No	<0.01
	55	234	219	No	0.17	223	No	0.15	226	No	0.01
	60	234	222	No	0.27	226	No	0.26	229	No	0.08
	65	234	224	No	0.36	228	No	0.35	231	No	0.2
	70	234	226	No	0.45	231	No	0.45	234	Yes	0.5
	75	234	229	Yes	0.6	233	Yes	0.55	237	Yes	0.8
80	234	232	Yes	0.73	236	Yes	0.7	240	Yes	0.96	

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	85	234	235	Yes	0.83	240	Yes	0.85	244	Yes	>0.99
	90	234	239	Yes	0.93	245	Yes	0.96	249	Yes	>0.99
	95	234	246	Yes	0.99	251	Yes	0.99	256	Yes	>0.99
8	5	241	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	241	199	No	<0.01	201	No	<0.01	203	No	<0.01
	15	241	203	No	<0.01	206	No	<0.01	208	No	<0.01
	20	241	207	No	<0.01	210	No	<0.01	212	No	<0.01
	25	241	210	No	<0.01	213	No	<0.01	215	No	<0.01
	30	241	212	No	0.01	216	No	<0.01	218	No	<0.01
	35	241	215	No	0.01	219	No	0.01	221	No	<0.01
	40	241	217	No	0.03	221	No	0.02	224	No	<0.01
	45	241	220	No	0.05	224	No	0.04	226	No	<0.01
	50	241	222	No	0.08	226	No	0.07	229	No	<0.01
	55	241	224	No	0.13	228	No	0.1	231	No	<0.01
	60	241	227	No	0.21	231	No	0.19	234	No	0.02
	65	241	229	No	0.28	233	No	0.26	237	No	0.13
	70	241	232	No	0.41	236	No	0.4	239	No	0.28
	75	241	234	Yes	0.5	239	Yes	0.5	242	Yes	0.61
	80	241	237	Yes	0.63	242	Yes	0.65	246	Yes	0.92
	85	241	241	Yes	0.79	246	Yes	0.81	250	Yes	0.99
90	241	246	Yes	0.92	251	Yes	0.93	255	Yes	>0.99	
95	241	252	Yes	0.98	258	Yes	0.99	262	Yes	>0.99	

**Table 3.10. Proficiency Projections Based on RIT Scores—ELA/Reading**

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
2	5	187	142	No	<0.01	149	No	<0.01	153	No	<0.01
	10	187	148	No	<0.01	155	No	<0.01	159	No	<0.01
	15	187	152	No	0.01	159	No	0.01	164	No	<0.01
	20	187	156	No	0.03	162	No	0.02	167	No	<0.01
	25	187	159	No	0.05	165	No	0.03	170	No	<0.01
	30	187	161	No	0.07	168	No	0.06	173	No	<0.01
	35	187	163	No	0.11	170	No	0.09	175	No	<0.01
	40	187	166	No	0.16	172	No	0.14	177	No	<0.01
	45	187	168	No	0.22	175	No	0.2	180	No	0.02
	50	187	170	No	0.29	177	No	0.27	182	No	0.08
	55	187	172	No	0.33	179	No	0.36	184	No	0.2
	60	187	174	No	0.41	181	No	0.41	186	No	0.39
	65	187	177	Yes	0.54	183	Yes	0.5	188	Yes	0.61
	70	187	179	Yes	0.59	186	Yes	0.64	191	Yes	0.87
	75	187	182	Yes	0.71	188	Yes	0.73	193	Yes	0.96
	80	187	184	Yes	0.78	191	Yes	0.8	196	Yes	0.99
	85	187	188	Yes	0.87	194	Yes	0.89	200	Yes	>0.99
90	187	192	Yes	0.94	199	Yes	0.95	204	Yes	>0.99	
95	187	198	Yes	0.98	205	Yes	0.99	210	Yes	>0.99	
3	5	199	155	No	<0.01	160	No	<0.01	164	No	<0.01
	10	199	161	No	<0.01	167	No	<0.01	171	No	<0.01
	15	199	166	No	0.01	171	No	<0.01	175	No	<0.01
	20	199	169	No	0.02	175	No	0.02	179	No	<0.01
	25	199	172	No	0.04	178	No	0.03	182	No	<0.01
	30	199	175	No	0.06	180	No	0.05	184	No	<0.01
	35	199	178	No	0.11	183	No	0.09	187	No	<0.01
	40	199	180	No	0.16	185	No	0.12	189	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	45	199	182	No	0.18	188	No	0.2	192	No	0.02
	50	199	185	No	0.29	190	No	0.27	194	No	0.08
	55	199	187	No	0.37	192	No	0.36	196	No	0.2
	60	199	189	No	0.46	194	No	0.41	198	No	0.39
	65	199	192	Yes	0.54	197	Yes	0.55	201	Yes	0.72
	70	199	194	Yes	0.63	199	Yes	0.64	203	Yes	0.87
	75	199	197	Yes	0.71	202	Yes	0.76	206	Yes	0.98
	80	199	200	Yes	0.82	205	Yes	0.83	209	Yes	>0.99
	85	199	204	Yes	0.89	209	Yes	0.92	213	Yes	>0.99
	90	199	208	Yes	0.95	213	Yes	0.96	217	Yes	>0.99
	95	199	215	Yes	0.99	220	Yes	>0.99	224	Yes	>0.99
4	5	206	166	No	<0.01	170	No	<0.01	173	No	<0.01
	10	206	173	No	<0.01	177	No	<0.01	179	No	<0.01
	15	206	177	No	0.01	181	No	0.01	184	No	<0.01
	20	206	181	No	0.02	184	No	0.01	187	No	<0.01
	25	206	184	No	0.05	187	No	0.03	190	No	<0.01
	30	206	186	No	0.06	190	No	0.07	193	No	<0.01
	35	206	189	No	0.12	193	No	0.1	195	No	<0.01
	40	206	191	No	0.17	195	No	0.16	198	No	0.01
	45	206	194	No	0.24	197	No	0.23	200	No	0.04
	50	206	196	No	0.32	199	No	0.31	202	No	0.13
	55	206	198	No	0.41	202	No	0.4	204	No	0.28
	60	206	200	Yes	0.5	204	Yes	0.5	207	Yes	0.61
	65	206	203	Yes	0.59	206	Yes	0.6	209	Yes	0.8
	70	206	205	Yes	0.68	209	Yes	0.73	211	Yes	0.92
	75	206	208	Yes	0.8	211	Yes	0.77	214	Yes	0.99
	80	206	211	Yes	0.86	214	Yes	0.87	217	Yes	>0.99
85	206	215	Yes	0.94	218	Yes	0.95	220	Yes	>0.99	

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	90	206	219	Yes	0.97	222	Yes	0.98	225	Yes	>0.99
	95	206	226	Yes	>0.99	229	Yes	>0.99	231	Yes	>0.99
5	5	214	175	No	<0.01	178	No	<0.01	180	No	<0.01
	10	214	181	No	<0.01	184	No	<0.01	186	No	<0.01
	15	214	186	No	0.01	189	No	<0.01	191	No	<0.01
	20	214	189	No	0.01	192	No	0.01	194	No	<0.01
	25	214	192	No	0.03	195	No	0.02	197	No	<0.01
	30	214	195	No	0.06	197	No	0.04	199	No	<0.01
	35	214	197	No	0.09	200	No	0.08	202	No	<0.01
	40	214	199	No	0.11	202	No	0.12	204	No	<0.01
	45	214	201	No	0.16	204	No	0.15	206	No	0.01
	50	214	204	No	0.27	206	No	0.22	208	No	0.04
	55	214	206	No	0.31	209	No	0.35	211	No	0.2
	60	214	208	No	0.4	211	No	0.4	213	No	0.39
	65	214	210	Yes	0.5	213	Yes	0.5	215	Yes	0.61
	70	214	213	Yes	0.6	215	Yes	0.6	217	Yes	0.8
	75	214	215	Yes	0.69	218	Yes	0.74	220	Yes	0.96
	80	214	218	Yes	0.8	221	Yes	0.85	223	Yes	0.99
	85	214	222	Yes	0.89	224	Yes	0.92	226	Yes	>0.99
90	214	226	Yes	0.96	228	Yes	0.97	230	Yes	>0.99	
95	214	232	Yes	0.99	235	Yes	>0.99	237	Yes	>0.99	
6	5	217	181	No	<0.01	183	No	<0.01	185	No	<0.01
	10	217	187	No	<0.01	189	No	<0.01	191	No	<0.01
	15	217	191	No	0.01	193	No	<0.01	195	No	<0.01
	20	217	195	No	0.02	197	No	0.02	198	No	<0.01
	25	217	198	No	0.04	199	No	0.03	201	No	<0.01
	30	217	200	No	0.06	202	No	0.05	203	No	<0.01
	35	217	202	No	0.09	204	No	0.08	206	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	40	217	205	No	0.16	206	No	0.13	208	No	0.01
	45	217	207	No	0.2	209	No	0.22	210	No	0.02
	50	217	209	No	0.27	211	No	0.26	212	No	0.08
	55	217	211	No	0.36	213	No	0.35	214	No	0.2
	60	217	213	No	0.45	215	No	0.45	216	No	0.39
	65	217	215	Yes	0.5	217	Yes	0.55	218	Yes	0.61
	70	217	218	Yes	0.64	219	Yes	0.65	221	Yes	0.87
	75	217	220	Yes	0.73	222	Yes	0.78	223	Yes	0.96
	80	217	223	Yes	0.84	225	Yes	0.87	226	Yes	0.99
	85	217	226	Yes	0.91	228	Yes	0.94	229	Yes	>0.99
	90	217	231	Yes	0.97	232	Yes	0.98	233	Yes	>0.99
	95	217	237	Yes	>0.99	238	Yes	>0.99	239	Yes	>0.99
7	5	221	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	221	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	221	195	No	0.01	196	No	<0.01	197	No	<0.01
	20	221	198	No	0.01	200	No	0.01	201	No	<0.01
	25	221	201	No	0.03	202	No	0.02	203	No	<0.01
	30	221	204	No	0.06	205	No	0.04	206	No	<0.01
	35	221	206	No	0.08	207	No	0.07	208	No	<0.01
	40	221	208	No	0.12	210	No	0.14	211	No	<0.01
	45	221	210	No	0.18	212	No	0.16	213	No	0.01
	50	221	212	No	0.24	214	No	0.23	215	No	0.04
	55	221	214	No	0.28	216	No	0.31	217	No	0.13
	60	221	217	No	0.41	218	No	0.4	219	No	0.28
	65	221	219	Yes	0.5	220	Yes	0.5	221	Yes	0.5
	70	221	221	Yes	0.59	223	Yes	0.64	224	Yes	0.8
	75	221	224	Yes	0.72	225	Yes	0.73	226	Yes	0.92
80	221	226	Yes	0.79	228	Yes	0.84	229	Yes	0.99	

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Meets	Prob.		Meets	Prob.		Meets	Prob.
	85	221	230	Yes	0.9	231	Yes	0.91	232	Yes	>0.99
	90	221	234	Yes	0.96	235	Yes	0.97	237	Yes	>0.99
	95	221	240	Yes	0.99	241	Yes	0.99	243	Yes	>0.99
8	5	224	188	No	<0.01	189	No	<0.01	190	No	<0.01
	10	224	194	No	<0.01	195	No	<0.01	196	No	<0.01
	15	224	198	No	0.01	199	No	<0.01	200	No	<0.01
	20	224	201	No	0.02	203	No	0.02	203	No	<0.01
	25	224	204	No	0.04	205	No	0.02	206	No	<0.01
	30	224	207	No	0.06	208	No	0.05	209	No	<0.01
	35	224	209	No	0.09	210	No	0.08	211	No	<0.01
	40	224	211	No	0.13	213	No	0.12	213	No	<0.01
	45	224	214	No	0.18	215	No	0.17	216	No	0.01
	50	224	216	No	0.25	217	No	0.24	218	No	0.04
	55	224	218	No	0.33	219	No	0.32	220	No	0.13
	60	224	220	No	0.41	221	No	0.41	222	No	0.28
	65	224	222	Yes	0.5	223	Yes	0.5	224	Yes	0.5
	70	224	225	Yes	0.63	226	Yes	0.64	227	Yes	0.8
	75	224	227	Yes	0.71	228	Yes	0.72	229	Yes	0.92
	80	224	230	Yes	0.82	231	Yes	0.83	232	Yes	0.99
	85	224	233	Yes	0.89	235	Yes	0.92	236	Yes	>0.99
90	224	238	Yes	0.96	239	Yes	0.97	240	Yes	>0.99	
95	224	244	Yes	0.99	245	Yes	>0.99	246	Yes	>0.99	

## References

- Kolen, M. J., & Brennan, R. L. (2004). *Test equating, scaling, and linking: Methods and practices* (2nd ed.). Springer. <https://doi.org/10.1007/978-1-4939-0317-7>
- Lewis, K., & Kuhfeld, M. (2024). *MAP Growth with enhanced item-selection algorithm: Updates on score comparability*. NWEA Research Report. NWEA. [https://www.nwea.org/uploads/Research-MAP-Growth-with-enhanced-item-selection-algorithm-updates-on-score-compatibility\\_NWEA\\_Research\\_Guide.pdf](https://www.nwea.org/uploads/Research-MAP-Growth-with-enhanced-item-selection-algorithm-updates-on-score-compatibility_NWEA_Research_Guide.pdf)
- Lumley, T. (2019). *Survey: Analysis of complex survey samples*. (R package version 3.36) [Computer software]. Available from <https://CRAN.R-project.org/package=survey>.
- Meyer, J. P., Hu, A. H., & Li, S. (2023). *Content Proximity Spring 2022 Pilot Study Research Brief*. NWEA Research Report. NWEA. <https://www.nwea.org/uploads/Content-Proximity-Project-and-Pilot-Study-Spring-2022-Research-Report.pdf>
- NWEA. (2025). *MAP Growth achievement status and growth norms for students and schools*. [Tech Rep.]. NWEA.
- Pommerich, M., Hanson, B., Harris, D., & Sconing, J. (2004). Issues in conducting linkage between distinct tests. *Applied Psychological Measurement*, 28(4), 247–273. <https://doi.org/10.1177/0146621604265033>