Predicting Performance on the Georgia Milestones End-of-Grade (EOG) Assessments Based on NWEA MAP Growth Scores

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Linking Study Updates

Date	Description
2020-07	Conducted a linking study for grades 3–8 in mathematics and ELA based on the 2020 norms and Spring 2019 data.
2025-07	Updated the linking study based on the 2025 norms.

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Executive Summary

To predict student achievement on the Georgia Milestones End-of-Grade (EOG) assessments in English language arts (ELA) and mathematics, NWEA® conducted a linking study using Spring 2019 data to derive Rasch Unit (RIT) cut scores on the MAP® Growth™ assessments that correspond to the Georgia Milestones achievement levels. With this information, educators can identify students at risk of failing to meet state proficiency standards early in the year and provide tailored educational interventions. The linking study has been updated since the previous version published in July 2020 to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025).

Table E.1 presents the Georgia Milestones *Proficient Learner* achievement level cut scores and the corresponding MAP Growth RIT cut scores that allow teachers to identify students who are on track for proficiency on the state summative test and those who are not. For example, the *Proficient Learner* cut score on the Georgia Milestones grade 3 ELA test is 525. A grade 3 student with a MAP Growth reading RIT score of 194 in the fall is likely to meet proficiency on the Georgia Milestones ELA test in the spring, whereas a grade 3 student with a MAP Growth reading RIT score lower than 194 in the fall is in jeopardy of not meeting proficiency. MAP Growth cut scores for grade 2 are also provided so that educators can track early learners' progress toward proficiency on the Georgia Milestones test by grade 3. These cut scores were derived based on the grade 3 cuts and the 2025 NWEA growth norms for the adjacent grade (i.e., grades 2 to 3).

Table E.1. MAP Growth Cut Scores for Georgia Milestones EOG Proficiency

Assessment		*Proficient Learner* Cut Scores by Grade						
		2	3	4	5	6	7	8
ELA/Reading								
GA Milestones Spring		–	525	525	525	525	525	525
MAP Growth	Fall	181	194	204	210	216	222	223
	Winter	187	199	207	213	217	223	224
	Spring	191	202	209	214	218	224	225
Mathematics								
GA Milestones Spring		–	525	525	525	525	525	525
MAP Growth	Fall	179	190	205	217	219	226	232
	Winter	187	199	213	223	225	230	236
	Spring	193	205	218	227	229	233	239

Please note that the results in this report may differ from those found in the NWEA reporting system for individual districts. The typical growth scores from fall to spring or winter to spring used 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). However, instructional weeks often vary by district, so the cut scores in this report may differ slightly from the MAP Growth score reports that reflect spring instructional weeks set by partners.

E.1. Assessment Overview

The Georgia Milestones EOG ELA and mathematics tests are Georgia's state summative assessments aligned to the Georgia Standards of Excellence and administered in grades 3–8. Based on their test scores, students are placed into one of four achievement levels: *Beginning Learner, Developing Learner, Proficient Learner,* and *Distinguished Learner.* These tests are used to provide evidence of student achievement in ELA and mathematics for various test score uses, such as meeting the requirements of the state's accountability system. The *Proficient Learner* cut score demarks the minimum level of achievement considered to be proficient. 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 100–350.

E.2. Linking Methods

Based on scores from the Spring 2019 test administration, the equipercentile linking method was used to identify the spring MAP Growth scores that correspond to the spring Georgia Milestones achievement level cut scores. MAP Growth spring cut scores for grade 2 were then derived from the spring cuts for grade 3 and the growth norms for the adjacent grade (i.e., grades 2 to 3). Similarly, the MAP Growth cut scores for the fall and winter administrations of all grades were derived from the spring administration cuts and the growth norms for either fall to spring or winter to spring, respectively. The spring cuts[1] for mathematics were adjusted for score alignment before deriving the cuts for grade 2 spring and for all grades' fall and winter administrations.

E.3. Student Sample

Only students who took both the MAP Growth and Georgia Milestones assessments in Spring 2019 were included in the study sample. Table E.2 presents the weighted numbers of Georgia students from 28 districts and 219 schools who were included in the linking study. The linking study sample is voluntary, so the data can only include student scores from partners who share their data. Also, not all students in a state take MAP Growth. The sample may therefore not represent the general student population as well as it should. To ensure that the linking study sample represents the state student population in terms of race, sex, and achievement level, weighting (i.e., a statistical method that matches the distributions of the variables of interest to those of the target population) was applied to the sample. As a result, the RIT cuts derived from the study sample can be generalized to any student from the target population. All analyses for grades 3–8 in this study were conducted based on the weighted sample.

[1] 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.

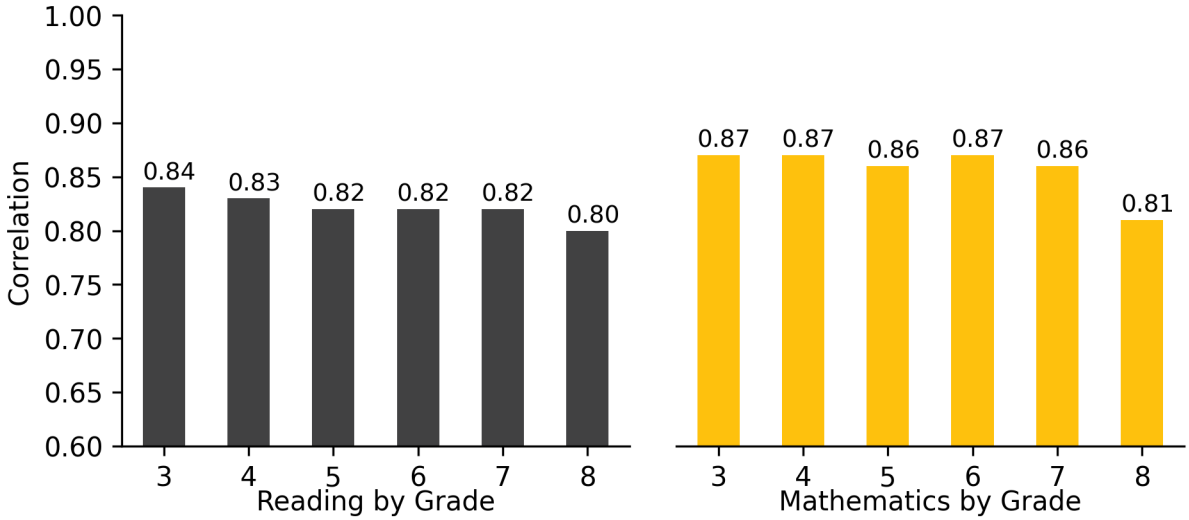
Table E.2. Linking Study Sample

Grade	# Students	
	ELA/Reading	Mathematics
3	12,930	12,890
4	14,537	14,652
5	13,826	13,837
6	14,545	14,791
7	11,752	11,816
8	10,096	9,974

E.4. Test Score Relationships

Correlations between MAP Growth RIT scores and Georgia Milestones EOG scores range from 0.80 to 0.87 across both content areas, as shown in Figure E.1. These values indicate a strong relationship among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the Georgia Milestones EOG assessments.

Figure E.1. Correlations Between MAP Growth and Georgia Milestones EOG

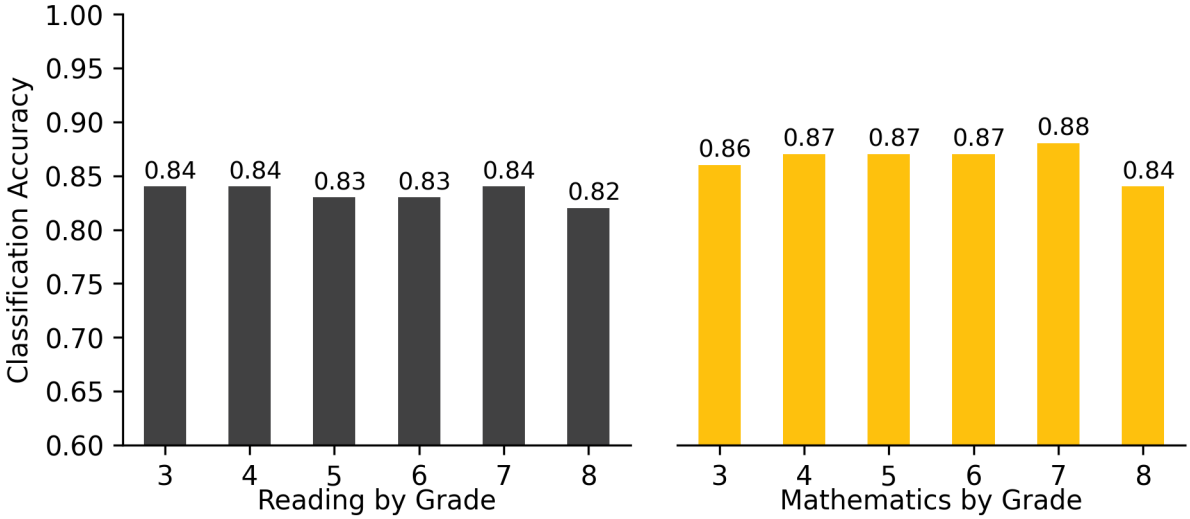


E.5. Accuracy of MAP Growth Classifications

Figure E.2 presents the classification accuracy statistics that show the proportion of students correctly classified by their RIT scores as proficient or not proficient on the Georgia Milestones EOG tests.[2] For example, the MAP Growth reading grade 3 *Proficient Learner* cut score has a 0.84 accuracy rate, meaning it accurately classified student achievement on the state test for 84% of the sample. The results range from 0.82 to 0.88 across both content areas, indicating that RIT scores have a high accuracy rate of identifying student proficiency on the Georgia Milestones EOG tests.

[2] The classification accuracy calculations for the mathematics spring cuts were based on the concorded cut scores.

Figure E.2. Accuracy of MAP Growth Classifications



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 the state summative assessment 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 in July 2020 to statistically connect the scores of the Georgia Milestones End-of-Grade (EOG) assessments in English language arts (ELA) and mathematics with Rasch Unit (RIT) scores from the MAP Growth assessments taken during the Spring 2019 term. The linking study has been updated since the previous version published in July 2020 to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025). In this updated study, MAP Growth cut scores are also included for grade 2 so that educators can track early learners' progress toward proficiency on the Georgia Milestones test by grade 3. This report presents the following results:

1. Student sample demographics
2. Descriptive statistics of test scores
3. MAP Growth cut scores that correspond to the Georgia Milestones EOG achievement levels using the equipercentile linking procedure for the spring results and the 2025 norms for the fall and winter results
4. Classification accuracy statistics to determine the degree to which MAP Growth accurately predicts student proficiency status on the Georgia Milestones EOG tests
5. The probability of achieving grade-level proficiency on the Georgia Milestones assessment based on MAP Growth RIT scores from fall, winter, and spring using the 2025 norms

1.2. Assessment Overview

The Georgia Milestones EOG ELA and mathematics summative assessments are aligned to the Georgia Standards of Excellence and administered in grades 3–8. Each assessment has three cut scores (i.e., the minimum score a student must get on a test to be placed in a certain achievement level) that distinguish between the following achievement levels: *Beginning Learner, Developing Learner, Proficient Learner,* and *Distinguished Learner.* The *Proficient Learner* cut score demarks the minimum level of performance considered to be proficient for accountability purposes.

MAP Growth interim assessments from NWEA are computer adaptive and aligned to state-specific content standards. Scores are reported on the RIT vertical scale with a range of 100–350. Each content area has its own scale. To aid the interpretation of scores, NWEA periodically conducts norming studies of student and school performance on MAP Growth. Achievement status norms show how well a student performed on the MAP Growth test compared with students in the norming group by associating the student's performance on the MAP Growth test, expressed as a RIT score, with a percentile ranking. Growth norms provide expected score gains across test administrations (e.g., the relative evaluation of a student's growth from fall to spring). 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 2019 administrations of the MAP Growth and Georgia Milestones EOG assessments. NWEA requested that Georgia districts recruited to participate in the study share their student and score data for the target term. Districts also permitted NWEA to access students' associated MAP Growth scores from the NWEA in-house database. Once Georgia state score information was available to NWEA, each student's state testing record was matched to their MAP Growth score by using 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 Georgia Milestones EOG assessments in Spring 2019 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 population in terms of race, sex, and achievement level. These variables were selected because they are correlated with the student's academic achievement within this study and are often provided in the data for the state population. The weighted sample matches the target population as closely as possible for the key demographics and test score characteristics. Specifically, a raking procedure was used to calculate the post-stratification weights and improve the representativeness of the sample. 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 achievement 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. MAP Growth Cut Scores

The equipercentile linking method (Kolen & Brennan, 2004) was used to identify the spring RIT scores that correspond to the spring Georgia Milestones EOG achievement level cut scores. Spring cuts for grade 2 were derived based on the cuts for grade 3 and the 2025 NWEA growth norms. RIT fall and winter cut scores that predict proficiency on the spring summative test were then projected using the 2025 growth norms. Percentile ranks are also provided that show how a nationally representative sample of students in the same grade scored on RIT for each administration, which is an important interpretation of RIT scores. This is useful for understanding (1) how student scores compare with peers nationwide and (2) the relative rigor of a state's achievement level designations for its summative assessment.

The MAP Growth spring cut scores for grades 3–8 could be calculated using the equipercentile linking method because that data are directly connected to the Georgia Milestones spring data used in the study. 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., Georgia Milestones). 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 Georgia Milestones tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the Georgia Milestones 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 or winter to spring within the same grade or from spring of a lower grade to the spring of the adjacent higher grade. This information can be used to calculate the fall and winter cut scores for grades 3–8 and the fall, winter, and spring cut scores for grade 2. The equation below was used to determine the previous term's or grade'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 or grade's RIT score, and
- g is the expected growth from the previous RIT (e.g., fall or winter) to the spring RIT.

To derive the spring cut scores for grade 2, the growth score from spring of one year to the next was used (i.e., the growth score from spring grade 2 to spring grade 3). The calculation of fall and winter cuts for grade 2 followed the same process as the other grades. For example, the growth score from fall to spring in grade 2 was used to calculate the fall cuts for grade 2.

2.4. Classification Accuracy

The degree to which MAP Growth predicts student proficiency status on the Georgia Milestones tests can be described using classification accuracy statistics based on the MAP Growth spring cut scores that show the proportion of students correctly classified by their RIT scores as proficient (*Proficient Learner* or *Distinguished Learner*) or not proficient (*Beginning Learner* or *Developing Learner*). Table 2.1 describes the classification accuracy statistics provided in this report (Pommerich et al., 2004). The results are based on the Spring 2019 MAP Growth and Georgia Milestones data for the *Proficient Learner* cut score.

Table 2.1. Description of Classification Accuracy Summary Statistics

Statistic	Description	Interpretation
Overall Classification Accuracy Rate	(TP + TN) / (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

Statistic	Description	Interpretation
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.

2.5. Proficiency Projections

Given that all test scores contain measurement errors, reaching the *Proficient Learner* RIT cut does not guarantee that a 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 Georgia Milestones test based on a student's RIT scores from fall, winter, and spring. The equation below was used to calculate the probability of a student achieving *Proficient Learner* on the Georgia Milestones test based on their fall or winter RIT score:

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

where:

- Φ is a standardized normal cumulative distribution,
- $RIT_{previous}$ 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 Learner* 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 *Proficient Learner* on the Georgia Milestones test based on their spring RIT score (RIT_{Spring}):

$$Pr(Achieving\ Proficient\ Learner\ in\ spring\ |\ spring\ RIT) = \Phi\left(\frac{RIT_{Spring} - RIT_{SpringCut}}{SE}\right)$$

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 Georgia Milestones EOG assessments in Spring 2019 were included in the study sample. Data used in this study were collected from 28 districts and 219 schools in Georgia. Table 3.1 presents the demographic distributions of race, sex, and achievement level in the original unweighted study sample. Table 3.2 presents the distributions of the student population who took the Spring 2019 Georgia Milestones EOG tests (GOSA, 2019). Since the unweighted data are different from the general Georgia Milestones population, post-stratification weights were applied to the linking study sample to improve its representativeness. Table 3.3 presents the demographic distributions of the sample after weighting, which are almost identical to the Georgia student population distributions. The analyses in this study were therefore conducted based on the weighted sample.

Table 3.1. Linking Study Sample Demographics (Unweighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	12,930	14,537	13,826	14,545	11,764	10,106
Race	Asian	1.9	2.1	1.9	2.2	2.2	2.2
	Black	29.4	30.6	29.6	31.0	28.0	28.7
	Hispanic	17.5	17.3	17.8	17.7	19.0	19.7
	Multi-Race	4.5	4.4	4.1	4.3	4.0	3.7
	Other	1.7	1.6	1.6	1.7	2.0	2.5
	White	45.0	44.1	45.1	43.0	44.8	43.2
Sex	Female	49.0	49.2	48.7	47.9	49.9	49.1
	Male	51.0	50.8	51.3	52.1	50.1	50.9
Achievement Level	*Beginning*	30.0	25.6	22.8	27.2	30.3	19.3
	Developing	32.0	34.0	35.9	30.6	35.6	38.3
	Proficient	26.7	26.8	32.6	32.8	27.9	34.2
	Distinguished	11.4	13.6	8.6	9.3	6.2	8.1
Mathematics							
	Total N	12,877	14,652	13,837	14,776	11,828	9,964
Race	Asian	1.9	2.1	1.9	2.2	2.2	1.6
	Black	29.4	30.7	29.6	31.4	28.6	29.5
	Hispanic	17.6	17.2	17.8	17.6	18.9	19.3
	Multi-Race	4.5	4.4	4.2	4.4	4.0	3.8
	Other	1.7	1.6	1.6	1.7	2.0	2.3
	White	45.0	44.0	45.0	42.7	44.4	43.4
Sex	Female	49.0	49.3	48.7	47.9	49.9	49.6
	Male	51.0	50.7	51.3	52.1	50.1	50.4
Achievement Level	*Beginning*	16.9	16.4	22.4	19.5	21.8	20.1
	Developing	33.5	36.3	40.2	41.9	39.0	42.6
	Proficient	39.1	36.1	27.2	29.0	28.3	29.4
	Distinguished	10.5	11.2	10.2	9.6	10.9	7.9

Table 3.2. Spring 2019 Georgia Milestones EOG Student Population Demographics

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA							
	Total N	128,777	133,027	135,905	136,207	132,786	124,134
Race	Asian	4.4	4.2	4.2	4.2	4.2	4.2
	Black	36.6	37.2	37.1	37.2	36.6	36.8
	Hispanic	17.0	17.0	17.0	17.1	17.0	16.6
	Multi-Race	4.2	4.0	3.9	3.8	3.6	3.5
	Other	0.3	0.3	0.3	0.3	0.3	0.3
	White	37.5	37.3	37.5	37.4	38.3	38.5
Sex	Female	49.1	48.9	48.9	49.1	49.0	48.6
	Male	50.9	51.1	51.1	50.9	51.0	51.4
Achievement Level	*Beginning*	26.3	25.2	19.8	26.4	28.2	17.8
	Developing	31.7	32.4	34.8	27.7	32.9	34.8
	Proficient	27.9	26.6	34.3	34.9	30.7	35.5
	Distinguished	14.1	15.8	11.1	11.0	8.1	11.8
Mathematics							
	Total N	128,610	132,967	135,855	136,159	132,322	102,928
Race	Asian	4.4	4.2	4.2	4.2	4.1	2.2
	Black	36.6	37.2	37.1	37.2	36.6	39.5
	Hispanic	17.0	17.0	17.0	17.1	17.1	16.9
	Multi-Race	4.2	4.0	3.9	3.8	3.6	3.4
	Other	0.3	0.3	0.3	0.3	0.3	0.3
	White	37.5	37.3	37.5	37.4	38.3	37.7
Sex	Female	49.1	48.9	48.9	49.1	49.0	48.4
	Male	50.9	51.1	51.1	50.9	51.0	51.6
Achievement Level	*Beginning*	17.5	17.7	19.4	21.8	22.0	21.9
	Developing	30.8	33.1	39.8	38.7	35.3	43.1
	Proficient	38.6	35.7	27.3	27.3	28.0	27.5
	Distinguished	13.2	13.5	13.5	12.3	14.6	7.6

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	12,930	14,537	13,826	14,545	11,752	10,096
Race	Asian	4.4	4.2	4.2	4.2	4.2	4.2
	Black	36.6	37.2	37.1	37.2	36.6	36.8
	Hispanic	17.0	17.0	17.0	17.1	17.0	16.6
	Multi-Race	4.2	4.0	3.9	3.8	3.6	3.5
	Other	0.3	0.3	0.3	0.3	0.3	0.3
	White	37.5	37.3	37.5	37.4	38.3	38.5
Sex	Female	49.1	48.9	48.9	49.1	49.0	48.6
	Male	50.9	51.1	51.1	50.9	51.0	51.4
Achievement Level	*Beginning*	26.3	25.2	19.8	26.4	28.2	17.8
	Developing	31.7	32.4	34.8	27.7	32.9	34.8
	Proficient	27.9	26.6	34.3	34.9	30.7	35.5
	Distinguished	14.1	15.8	11.1	11.0	8.1	11.8
Mathematics							
	Total N	12,890	14,652	13,837	14,791	11,816	9,974
Race	Asian	4.4	4.2	4.2	4.2	4.1	2.2
	Black	36.6	37.2	37.1	37.2	36.6	39.5
	Hispanic	17.0	17.0	17.0	17.1	17.1	16.9
	Multi-Race	4.2	4.0	3.9	3.8	3.6	3.4
	Other	0.3	0.3	0.3	0.3	0.3	0.3
	White	37.5	37.3	37.5	37.4	38.3	37.7
Sex	Female	49.1	48.9	48.9	49.1	49.0	48.4
	Male	50.9	51.1	51.1	50.9	51.0	51.6
Achievement Level	*Beginning*	17.5	17.7	19.4	21.8	22.0	21.9
	Developing	30.8	33.1	39.8	38.7	35.3	43.1
	Proficient	38.6	35.7	27.3	27.3	28.0	27.5
	Distinguished	13.2	13.5	13.5	12.3	14.6	7.6

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and Georgia Milestones EOG test scores from Spring 2019, including the correlation coefficients (*r*) between them. The correlation coefficients between the scores range from 0.80 to 0.84 for ELA/reading and 0.81 to 0.87 for mathematics. These values indicate a strong relationship among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the Georgia Milestones EOG assessments.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	*r*	Georgia Milestones				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
ELA/Reading										
3	12,930	0.84	513.2	59.9	270	779	197.5	15.7	142	243
4	14,537	0.83	513.8	55.1	316	775	204.3	15.7	141	256
5	13,826	0.82	519.7	53.2	316	760	211.0	14.7	142	265
6	14,545	0.82	515.8	65.3	295	769	214.2	15.1	154	262
7	11,752	0.82	510.3	56.8	331	785	218.2	15.6	154	267
8	10,096	0.80	519.8	49.6	339	730	221.3	14.7	152	266
Mathematics										
3	12,890	0.87	524.8	50.8	320	705	201.2	13.5	136	251
4	14,652	0.87	524.7	50.9	360	715	210.9	15.0	134	261
5	13,837	0.86	518.8	52.4	352	725	219.3	16.1	143	277
6	14,791	0.87	516.3	49.8	381	700	220.7	17.0	141	275
7	11,816	0.86	520.6	53.9	381	740	226.9	18.1	144	278
8	9,974	0.81	510.9	45.9	363	755	227.3	16.6	151	298

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

3.3. MAP Growth Cut Scores

Table 3.5 and Table 3.6 present the Georgia scale score ranges and the corresponding MAP Growth RIT cut scores and percentile ranges by content area and grade. These tables can be used to predict a student's likely achievement level on the Georgia Milestones EOG spring assessment when MAP Growth is taken in the fall, winter, or spring. For example, a grade 3 student who obtained a MAP Growth reading RIT score of 194 in the fall is likely to reach *Proficient Learner* on the Georgia Milestones grade 3 ELA test in the spring. A grade 3 student who obtained a MAP Growth reading RIT score of 199 in the winter is also likely to reach *Proficient Learner* on the Georgia Milestones assessment. The winter cut score is higher than the fall cut score because growth is expected between fall and winter as students receive more instruction during the school year.

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 from the default ones, a student's projected achievement level could be different from the generic projection presented in this document. Partners are therefore encouraged to use the projected achievement level in students' profile, classroom, and grade reports in the NWEA reporting system since they reflect the specific instructional weeks set by partners.

Table 3.5. MAP Growth Cut Scores—ELA/Reading

Georgia Milestones ELA								
Grade	***Beginning Learner***		***Developing Learner***		***Proficient Learner***		***Distinguished Learner***	
3	180–474		475–524		**525**–580		581–830	
4	210–474		475–524		**525**–573		574–775	
5	210–474		475–524		**525**–586		587–760	
6	140–474		475–524		**525**–598		599–820	
7	165–474		475–524		**525**–591		592–785	
8	225–474		475–524		**525**–580		581–730	
MAP Growth Reading								
Grade	***Beginning Learner***		***Developing Learner***		***Proficient Learner***		***Distinguished Learner***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–161	1–31	162–180	32–73	**181**–197	74–94	198–350	95–99
3	100–178	1–37	179–193	38–68	**194**–207	69–89	208–350	90–99
4	100–187	1–32	188–203	33–66	**204**–216	67–87	217–350	88–99
5	100–193	1–28	194–209	29–63	**210**–225	64–89	226–350	90–99
6	100–202	1–35	203–215	36–65	**216**–229	66–88	230–350	89–99
7	100–207	1–39	208–221	40–71	**222**–235	72–91	236–350	92–99
8	100–208	1–34	209–222	35–66	**223**–236	67–88	237–350	89–99
Winter								
2	100–168	1–32	169–186	33–72	**187**–203	73–93	204–350	94–99
3	100–183	1–36	184–198	37–68	**199**–212	69–89	213–350	90–99
4	100–190	1–31	191–206	32–65	**207**–218	66–85	219–350	86–99
5	100–196	1–28	197–212	29–64	**213**–226	65–87	227–350	88–99
6	100–204	1–36	205–216	37–64	**217**–230	65–88	231–350	89–99
7	100–208	1–38	209–222	39–70	**223**–236	71–91	237–350	92–99
8	100–209	1–33	210–223	34–65	**224**–237	66–88	238–350	89–99
Spring								
2	100–174	1–34	175–190	35–69	**191**–205	70–91	206–350	92–99
3	100–188	1–39	189–201	40–66	**202**–213	67–86	214–350	87–99
4	100–194	1–33	195–208	34–64	**209**–219	65–83	220–350	84–99
5	100–199	1–30	200–213	31–62	**214**–227	63–86	228–350	87–99
6	100–206	1–37	207–217	38–63	**218**–231	64–87	232–350	88–99
7	100–210	1–40	211–223	41–70	**224**–237	71–90	238–350	91–99
8	100–211	1–36	212–224	37–65	**225**–238	66–88	239–350	89–99

Note. Cut scores for fall and winter are derived from the spring cuts and growth norms based on the typical instructional weeks. Spring cut scores for grade 2 were derived from the grade 3 cuts using the growth norms. Bold numbers indicate the cut scores considered to be at least proficient for accountability purposes.

Table 3.6. MAP Growth Cut Scores—Mathematics

Georgia Milestones Mathematics								
Grade	***Beginning Learner***		***Developing Learner***		***Proficient Learner***		***Distinguished Learner***	
3	290–474		475–524		**525**–579		580–705	
4	270–474		475–524		**525**–584		585–715	
5	265–474		475–524		**525**–579		580–725	
6	285–474		475–524		**525**–579		580–700	
7	265–474		475–524		**525**–579		580–740	
8	275–474		475–524		**525**–578		579–755	
MAP Growth Mathematics								
Grade	***Beginning Learner***		***Developing Learner***		***Proficient Learner***		***Distinguished Learner***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–159	1–19	160–178	20–64	**179**–197	65–94	198–350	95–99
3	100–174	1–27	175–189	28–64	**190**–203	65–89	204–350	90–99
4	100–187	1–28	188–204	29–68	**205**–220	69–92	221–350	93–99
5	100–197	1–30	198–216	31–74	**217**–230	75–93	231–350	94–99
6	100–198	1–23	199–218	24–70	**219**–233	71–92	234–350	93–99
7	100–207	1–29	208–225	30–69	**226**–241	70–92	242–350	93–99
8	100–211	1–28	212–231	29–70	**232**–246	71–90	247–350	91–99
Winter								
2	100–167	1–19	168–186	20–63	**187**–205	64–93	206–350	94–99
3	100–182	1–27	183–198	28–64	**199**–213	65–89	214–350	90–99
4	100–194	1–28	195–212	29–68	**213**–228	69–92	229–350	93–99
5	100–203	1–32	204–222	33–73	**223**–237	74–92	238–350	93–99
6	100–203	1–23	204–224	24–69	**225**–240	70–92	241–350	93–99
7	100–211	1–30	212–229	31–68	**230**–246	69–91	247–350	92–99
8	100–215	1–29	216–235	30–69	**236**–251	70–90	252–350	91–99
Spring								
2	100–175	1–23	176–192	24–62	**193**–209	63–91	210–350	92–99
3	100–189	1–29	190–204	30–63	**205**–218	64–87	219–350	88–99
4	100–200	1–30	201–217	31–66	**218**–233	67–90	234–350	91–99
5	103–207	1–32	208–226	33–71	**227**–241	72–91	242–350	92–99
6	102–208	1–26	209–228	27–67	**229**–244	68–90	245–350	91–99
7	105–214	1–31	215–232	32–67	**233**–248	68–89	249–350	90–99
8	105–218	1–30	219–238	31–68	**239**–253	69–88	254–350	89–99

Note. Cut scores for fall and winter are derived from the spring cuts and growth norms based on the typical instructional weeks. Spring cut scores for grade 2 were derived from the grade 3 cuts using the growth norms. Bold numbers indicate the cut scores considered to be at least proficient for accountability purposes.

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 Georgia Milestones EOG tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.82 to 0.84 for ELA/reading and 0.84 to 0.88 for mathematics. These values suggest that the RIT cut scores are good at classifying students as proficient or not proficient on the Georgia Milestones EOG assessment.

Although the results show that MAP Growth scores can be used to accurately classify students as likely to be proficient on the Georgia Milestones tests, there is a notable limitation to how these results should be used and interpreted. Georgia Milestones and MAP Growth assessments are designed for different purposes and measure slightly different constructs even within the same content area. Therefore, scores on the two 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	Georgia Milestones		FP	FN				
ELA/Reading										
3	12,930	202	525	0.84	0.15	0.17	0.83	0.85	0.80	0.92
4	14,537	209	525	0.84	0.15	0.18	0.82	0.85	0.80	0.92
5	13,826	214	525	0.83	0.18	0.16	0.84	0.82	0.79	0.92
6	14,545	218	525	0.83	0.15	0.20	0.80	0.85	0.82	0.91
7	11,752	224	525	0.84	0.12	0.21	0.79	0.88	0.80	0.92
8	10,096	225	525	0.82	0.13	0.23	0.77	0.87	0.84	0.90
Mathematics										
3	12,890	203	525	0.86	0.13	0.15	0.85	0.87	0.88	0.94
4	14,652	213	525	0.87	0.12	0.13	0.87	0.88	0.87	0.95
5	13,837	224	525	0.87	0.11	0.15	0.85	0.89	0.84	0.95
6	14,791	226	525	0.87	0.12	0.14	0.86	0.88	0.83	0.95
7	11,816	231	525	0.88	0.12	0.12	0.88	0.88	0.84	0.95
8	9,974	235	525	0.84	0.10	0.25	0.75	0.90	0.80	0.91

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 *Proficient Learner* achievement on the Georgia Milestones EOG test based on RIT scores from fall, winter, or spring. For example, a grade 3 student who obtained a MAP Growth reading score of 200 in the fall has a 71% chance of reaching *Proficient Learner* or higher on the Georgia Milestones grade 3 test. "Prob." indicates the probability of obtaining proficient status on the Georgia Milestones test in the spring.

Table 3.8. Proficiency Projection 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	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
2	5	191	142	No	<0.01	149	No	<0.01	153	No	<0.01
	10	191	148	No	<0.01	155	No	<0.01	159	No	<0.01
	15	191	152	No	<0.01	159	No	<0.01	164	No	<0.01
	20	191	156	No	0.01	162	No	<0.01	167	No	<0.01
	25	191	159	No	0.02	165	No	0.01	170	No	<0.01
	30	191	161	No	0.03	168	No	0.02	173	No	<0.01
	35	191	163	No	0.05	170	No	0.04	175	No	<0.01
	40	191	166	No	0.07	172	No	0.06	177	No	<0.01
	45	191	168	No	0.11	175	No	0.09	180	No	<0.01
	50	191	170	No	0.16	177	No	0.14	182	No	0.01
	55	191	172	No	0.19	179	No	0.2	184	No	0.02
	60	191	174	No	0.25	181	No	0.24	186	No	0.08
	65	191	177	No	0.37	183	No	0.32	188	No	0.2
	70	191	179	No	0.41	186	No	0.45	191	Yes	0.5
	75	191	182	Yes	0.54	188	Yes	0.55	193	Yes	0.72
	80	191	184	Yes	0.63	191	Yes	0.64	196	Yes	0.92
	85	191	188	Yes	0.75	194	Yes	0.76	200	Yes	0.99
	90	191	192	Yes	0.87	199	Yes	0.89	204	Yes	>0.99
	95	191	198	Yes	0.95	205	Yes	0.97	210	Yes	>0.99
3	5	202	155	No	<0.01	160	No	<0.01	164	No	<0.01
	10	202	161	No	<0.01	167	No	<0.01	171	No	<0.01
	15	202	166	No	<0.01	171	No	<0.01	175	No	<0.01
	20	202	169	No	0.01	175	No	0.01	179	No	<0.01
	25	202	172	No	0.02	178	No	0.01	182	No	<0.01
	30	202	175	No	0.03	180	No	0.02	184	No	<0.01
	35	202	178	No	0.06	183	No	0.05	187	No	<0.01
	40	202	180	No	0.09	185	No	0.06	189	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	45	202	182	No	0.11	188	No	0.12	192	No	<0.01
	50	202	185	No	0.18	190	No	0.17	194	No	0.01
	55	202	187	No	0.25	192	No	0.24	196	No	0.04
	60	202	189	No	0.33	194	No	0.27	198	No	0.13
	65	202	192	No	0.41	197	No	0.41	201	No	0.39
	70	202	194	Yes	0.5	199	Yes	0.5	203	Yes	0.61
	75	202	197	Yes	0.59	202	Yes	0.64	206	Yes	0.87
	80	202	200	Yes	0.71	205	Yes	0.73	209	Yes	0.98
	85	202	204	Yes	0.82	209	Yes	0.86	213	Yes	>0.99
	90	202	208	Yes	0.91	213	Yes	0.92	217	Yes	>0.99
	95	202	215	Yes	0.98	220	Yes	0.99	224	Yes	>0.99
4	5	209	166	No	<0.01	170	No	<0.01	173	No	<0.01
	10	209	173	No	<0.01	177	No	<0.01	179	No	<0.01
	15	209	177	No	<0.01	181	No	<0.01	184	No	<0.01
	20	209	181	No	0.01	184	No	<0.01	187	No	<0.01
	25	209	184	No	0.02	187	No	0.01	190	No	<0.01
	30	209	186	No	0.03	190	No	0.03	193	No	<0.01
	35	209	189	No	0.06	193	No	0.05	195	No	<0.01
	40	209	191	No	0.1	195	No	0.08	198	No	<0.01
	45	209	194	No	0.14	197	No	0.13	200	No	0.01
	50	209	196	No	0.2	199	No	0.19	202	No	0.02
	55	209	198	No	0.28	202	No	0.27	204	No	0.08
	60	209	200	No	0.36	204	No	0.35	207	No	0.28
	65	209	203	No	0.45	206	No	0.45	209	Yes	0.5
	70	209	205	Yes	0.55	209	Yes	0.6	211	Yes	0.72
	75	209	208	Yes	0.68	211	Yes	0.65	214	Yes	0.92
	80	209	211	Yes	0.76	214	Yes	0.77	217	Yes	0.99
	85	209	215	Yes	0.88	218	Yes	0.9	220	Yes	>0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	90	209	219	Yes	0.94	222	Yes	0.96	225	Yes	>0.99
	95	209	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	218	181	No	<0.01	183	No	<0.01	185	No	<0.01
	10	218	187	No	<0.01	189	No	<0.01	191	No	<0.01
	15	218	191	No	0.01	193	No	<0.01	195	No	<0.01
	20	218	195	No	0.01	197	No	0.01	198	No	<0.01
	25	218	198	No	0.03	199	No	0.02	201	No	<0.01
	30	218	200	No	0.04	202	No	0.04	203	No	<0.01
	35	218	202	No	0.07	204	No	0.06	206	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	40	218	205	No	0.14	206	No	0.1	208	No	<0.01
	45	218	207	No	0.16	209	No	0.19	210	No	0.01
	50	218	209	No	0.23	211	No	0.22	212	No	0.04
	55	218	211	No	0.31	213	No	0.31	214	No	0.13
	60	218	213	No	0.4	215	No	0.4	216	No	0.28
	65	218	215	No	0.45	217	Yes	0.5	218	Yes	0.5
	70	218	218	Yes	0.6	219	Yes	0.6	221	Yes	0.8
	75	218	220	Yes	0.69	222	Yes	0.74	223	Yes	0.92
	80	218	223	Yes	0.8	225	Yes	0.84	226	Yes	0.99
	85	218	226	Yes	0.89	228	Yes	0.92	229	Yes	>0.99
	90	218	231	Yes	0.97	232	Yes	0.97	233	Yes	>0.99
	95	218	237	Yes	0.99	238	Yes	>0.99	239	Yes	>0.99
7	5	224	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	224	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	224	195	No	<0.01	196	No	<0.01	197	No	<0.01
	20	224	198	No	0.01	200	No	0.01	201	No	<0.01
	25	224	201	No	0.01	202	No	0.01	203	No	<0.01
	30	224	204	No	0.03	205	No	0.02	206	No	<0.01
	35	224	206	No	0.04	207	No	0.03	208	No	<0.01
	40	224	208	No	0.06	210	No	0.07	211	No	<0.01
	45	224	210	No	0.1	212	No	0.09	213	No	<0.01
	50	224	212	No	0.15	214	No	0.14	215	No	0.01
	55	224	214	No	0.18	216	No	0.2	217	No	0.02
	60	224	217	No	0.28	218	No	0.27	219	No	0.08
	65	224	219	No	0.36	220	No	0.36	221	No	0.2
	70	224	221	No	0.45	223	Yes	0.5	224	Yes	0.5
	75	224	224	Yes	0.59	225	Yes	0.6	226	Yes	0.72
	80	224	226	Yes	0.68	228	Yes	0.73	229	Yes	0.92

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	85	224	230	Yes	0.82	231	Yes	0.84	232	Yes	0.99
	90	224	234	Yes	0.92	235	Yes	0.93	237	Yes	>0.99
	95	224	240	Yes	0.98	241	Yes	0.99	243	Yes	>0.99
8	5	225	188	No	<0.01	189	No	<0.01	190	No	<0.01
	10	225	194	No	<0.01	195	No	<0.01	196	No	<0.01
	15	225	198	No	0.01	199	No	<0.01	200	No	<0.01
	20	225	201	No	0.01	203	No	0.01	203	No	<0.01
	25	225	204	No	0.03	205	No	0.02	206	No	<0.01
	30	225	207	No	0.04	208	No	0.04	209	No	<0.01
	35	225	209	No	0.07	210	No	0.06	211	No	<0.01
	40	225	211	No	0.11	213	No	0.1	213	No	<0.01
	45	225	214	No	0.15	215	No	0.14	216	No	0.01
	50	225	216	No	0.21	217	No	0.2	218	No	0.02
	55	225	218	No	0.29	219	No	0.28	220	No	0.08
	60	225	220	No	0.37	221	No	0.36	222	No	0.2
	65	225	222	No	0.45	223	No	0.45	224	No	0.39
	70	225	225	Yes	0.59	226	Yes	0.59	227	Yes	0.72
	75	225	227	Yes	0.67	228	Yes	0.68	229	Yes	0.87
	80	225	230	Yes	0.79	231	Yes	0.8	232	Yes	0.98
	85	225	233	Yes	0.87	235	Yes	0.9	236	Yes	>0.99
	90	225	238	Yes	0.96	239	Yes	0.96	240	Yes	>0.99
	95	225	244	Yes	0.99	245	Yes	0.99	246	Yes	>0.99

Table 3.9. Proficiency Projection 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	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
2	5	193	147	No	<0.01	155	No	<0.01	161	No	<0.01
	10	193	153	No	<0.01	161	No	<0.01	167	No	<0.01
	15	193	157	No	0.01	165	No	<0.01	171	No	<0.01
	20	193	160	No	0.02	168	No	0.01	174	No	<0.01
	25	193	162	No	0.03	171	No	0.02	177	No	<0.01
	30	193	165	No	0.06	173	No	0.04	179	No	<0.01
	35	193	167	No	0.09	175	No	0.07	181	No	<0.01
	40	193	169	No	0.14	177	No	0.12	183	No	<0.01
	45	193	171	No	0.2	179	No	0.14	185	No	0.01
	50	193	173	No	0.27	181	No	0.21	187	No	0.04
	55	193	175	No	0.31	183	No	0.3	189	No	0.13
	60	193	177	No	0.4	185	No	0.4	192	No	0.39
	65	193	179	Yes	0.5	187	Yes	0.5	194	Yes	0.61
	70	193	181	Yes	0.6	189	Yes	0.55	196	Yes	0.8
	75	193	183	Yes	0.69	192	Yes	0.7	198	Yes	0.92
	80	193	186	Yes	0.77	194	Yes	0.79	201	Yes	0.99
	85	193	189	Yes	0.86	197	Yes	0.88	204	Yes	>0.99
	90	193	193	Yes	0.93	201	Yes	0.94	208	Yes	>0.99
	95	193	198	Yes	0.98	207	Yes	0.99	214	Yes	>0.99
3	5	205	158	No	<0.01	166	No	<0.01	171	No	<0.01
	10	205	164	No	<0.01	172	No	<0.01	177	No	<0.01
	15	205	168	No	<0.01	176	No	<0.01	181	No	<0.01
	20	205	171	No	0.01	179	No	<0.01	185	No	<0.01
	25	205	174	No	0.02	182	No	0.01	188	No	<0.01
	30	205	176	No	0.04	184	No	0.03	190	No	<0.01
	35	205	178	No	0.06	186	No	0.05	193	No	<0.01
	40	205	180	No	0.1	189	No	0.11	195	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	45	205	182	No	0.15	191	No	0.17	197	No	0.01
	50	205	184	No	0.22	193	No	0.2	199	No	0.04
	55	205	186	No	0.3	195	No	0.29	201	No	0.13
	60	205	188	No	0.4	197	No	0.39	203	No	0.28
	65	205	190	Yes	0.5	199	Yes	0.5	206	Yes	0.61
	70	205	192	Yes	0.6	201	Yes	0.61	208	Yes	0.8
	75	205	195	Yes	0.74	204	Yes	0.76	211	Yes	0.96
	80	205	197	Yes	0.81	206	Yes	0.83	213	Yes	0.99
	85	205	200	Yes	0.9	210	Yes	0.92	217	Yes	>0.99
	90	205	204	Yes	0.96	214	Yes	0.97	221	Yes	>0.99
	95	205	210	Yes	0.99	220	Yes	>0.99	227	Yes	>0.99
	5	218	171	No	<0.01	176	No	<0.01	180	No	<0.01
	10	218	177	No	<0.01	183	No	<0.01	187	No	<0.01
	15	218	181	No	<0.01	187	No	<0.01	191	No	<0.01
	20	218	184	No	<0.01	190	No	<0.01	195	No	<0.01
	25	218	186	No	0.01	193	No	<0.01	198	No	<0.01
	30	218	189	No	0.02	196	No	0.01	201	No	<0.01
	35	218	191	No	0.04	198	No	0.02	203	No	<0.01
	40	218	193	No	0.07	200	No	0.04	206	No	<0.01
4	45	218	195	No	0.11	202	No	0.08	208	No	<0.01
	50	218	197	No	0.16	204	No	0.13	210	No	0.01
	55	218	199	No	0.23	207	No	0.24	212	No	0.04
	60	218	201	No	0.31	209	No	0.28	215	No	0.2
	65	218	203	No	0.4	211	No	0.39	217	No	0.39
	70	218	205	Yes	0.5	213	Yes	0.5	220	Yes	0.72
	75	218	208	Yes	0.65	216	Yes	0.67	222	Yes	0.87
	80	218	210	Yes	0.73	219	Yes	0.8	225	Yes	0.98
	85	218	214	Yes	0.87	222	Yes	0.9	229	Yes	>0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	90	218	217	Yes	0.93	226	Yes	0.97	233	Yes	>0.99
	95	218	223	Yes	0.99	232	Yes	>0.99	240	Yes	>0.99
5	5	227	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	227	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	227	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	227	193	No	<0.01	197	No	<0.01	200	No	<0.01
	25	227	195	No	<0.01	200	No	<0.01	204	No	<0.01
	30	227	198	No	0.01	203	No	<0.01	206	No	<0.01
	35	227	200	No	0.01	205	No	0.01	209	No	<0.01
	40	227	202	No	0.03	207	No	0.01	211	No	<0.01
	45	227	204	No	0.05	210	No	0.03	214	No	<0.01
	50	227	206	No	0.08	212	No	0.06	216	No	<0.01
	55	227	208	No	0.12	214	No	0.1	218	No	0.01
	60	227	210	No	0.19	216	No	0.16	221	No	0.04
	65	227	212	No	0.26	219	No	0.28	223	No	0.13
	70	227	215	No	0.4	221	No	0.39	226	No	0.39
	75	227	217	Yes	0.5	224	Yes	0.56	228	Yes	0.61
	80	227	220	Yes	0.65	226	Yes	0.67	232	Yes	0.92
	85	227	223	Yes	0.78	230	Yes	0.84	235	Yes	0.99
	90	227	227	Yes	0.9	234	Yes	0.94	240	Yes	>0.99
	95	227	233	Yes	0.99	240	Yes	0.99	246	Yes	>0.99
6	5	229	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	229	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	229	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	229	197	No	<0.01	201	No	<0.01	205	No	<0.01
	25	229	199	No	0.01	204	No	<0.01	208	No	<0.01
	30	229	202	No	0.02	207	No	0.01	211	No	<0.01
	35	229	204	No	0.03	209	No	0.01	213	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	40	229	206	No	0.05	212	No	0.04	216	No	<0.01
	45	229	208	No	0.09	214	No	0.07	218	No	<0.01
	50	229	210	No	0.13	216	No	0.11	220	No	0.01
	55	229	212	No	0.19	218	No	0.17	223	No	0.04
	60	229	214	No	0.27	220	No	0.25	225	No	0.13
	65	229	216	No	0.36	223	No	0.39	227	No	0.28
	70	229	219	Yes	0.5	225	Yes	0.5	230	Yes	0.61
	75	229	221	Yes	0.64	228	Yes	0.66	233	Yes	0.87
	80	229	224	Yes	0.77	231	Yes	0.79	236	Yes	0.98
	85	229	227	Yes	0.87	234	Yes	0.89	239	Yes	>0.99
	90	229	231	Yes	0.95	238	Yes	0.96	244	Yes	>0.99
	95	229	237	Yes	0.99	245	Yes	>0.99	251	Yes	>0.99
7	5	233	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	233	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	233	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	233	203	No	<0.01	206	No	<0.01	208	No	<0.01
	25	233	206	No	0.01	209	No	<0.01	211	No	<0.01
	30	233	208	No	0.01	211	No	0.01	214	No	<0.01
	35	233	211	No	0.03	214	No	0.02	216	No	<0.01
	40	233	213	No	0.06	216	No	0.03	219	No	<0.01
	45	233	215	No	0.09	219	No	0.07	221	No	<0.01
	50	233	217	No	0.14	221	No	0.12	224	No	0.01
	55	233	219	No	0.2	223	No	0.18	226	No	0.02
	60	233	222	No	0.31	226	No	0.3	229	No	0.13
	65	233	224	No	0.4	228	No	0.4	231	No	0.28
	70	233	226	Yes	0.5	231	Yes	0.5	234	Yes	0.61
	75	233	229	Yes	0.64	233	Yes	0.6	237	Yes	0.87
	80	233	232	Yes	0.77	236	Yes	0.74	240	Yes	0.98

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	85	233	235	Yes	0.86	240	Yes	0.88	244	Yes	>0.99
	90	233	239	Yes	0.94	245	Yes	0.97	249	Yes	>0.99
	95	233	246	Yes	0.99	251	Yes	>0.99	256	Yes	>0.99
8	5	239	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	239	199	No	<0.01	201	No	<0.01	203	No	<0.01
	15	239	203	No	<0.01	206	No	<0.01	208	No	<0.01
	20	239	207	No	<0.01	210	No	<0.01	212	No	<0.01
	25	239	210	No	0.01	213	No	<0.01	215	No	<0.01
	30	239	212	No	0.01	216	No	0.01	218	No	<0.01
	35	239	215	No	0.03	219	No	0.02	221	No	<0.01
	40	239	217	No	0.04	221	No	0.03	224	No	<0.01
	45	239	220	No	0.08	224	No	0.07	226	No	<0.01
	50	239	222	No	0.13	226	No	0.1	229	No	<0.01
	55	239	224	No	0.18	228	No	0.16	231	No	0.01
	60	239	227	No	0.28	231	No	0.26	234	No	0.08
	65	239	229	No	0.37	233	No	0.35	237	No	0.28
	70	239	232	Yes	0.5	236	Yes	0.5	239	Yes	0.5
	75	239	234	Yes	0.59	239	Yes	0.6	242	Yes	0.8
	80	239	237	Yes	0.72	242	Yes	0.74	246	Yes	0.98
	85	239	241	Yes	0.85	246	Yes	0.87	250	Yes	>0.99
	90	239	246	Yes	0.95	251	Yes	0.96	255	Yes	>0.99
	95	239	252	Yes	0.99	258	Yes	>0.99	262	Yes	>0.99

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