Predicting Performance on the Kansas Assessment Program (KAP) Based on NWEA MAP Growth Scores

August 2025

NWEA Psychometrics and Analytics

Linking Study Updates

Date	Description
2020-12	Conducted a linking study for grades 3–8 in ELA and mathematics based on the 2020 norms and Spring 2019 data.
2025-08	Updated the linking study based on the 2025 norms.

Acknowledgements: This report was made possible with the contributions of Yan Zhou, Ann Hu, Justin Schreiber, Christopher Wells, and Derek May. We appreciate our colleagues at NWEA and all our partners who provided data for the study.

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Executive Summary

To predict student achievement on the Kansas Assessment Program (KAP) in grades 3–8 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 KAP performance 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 to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025).

Table E.1 presents the KAP Level 3 performance level cut scores and the corresponding MAP Growth RIT cut scores that allow teachers to identify students who are on track for proficiency (Level 3 or higher) on the state summative test and those who are not. For example, the Level 3 cut score on the KAP grade 3 ELA test is 300. A grade 3 student with a MAP Growth reading RIT score of 195 in the fall is likely to meet proficiency on the KAP ELA test in the spring, whereas a grade 3 student with a MAP Growth reading RIT score lower than 195 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 KAP 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 (e.g., grades 2 to 3).

Table E.1. MAP Growth Cut Scores for KAP Proficiency

Assessment		Level 3 Cut Scores by Grade						
		2	3	4	5	6	7	8
ELA/Reading								
KAP Spring		–	300	300	300	300	300	300
MAP Growth	Fall	182	195	203	212	220	225	231
	Winter	188	200	206	215	221	226	232
	Spring	192	203	208	216	222	227	233
Mathematics								
KAP Spring		–	300	300	300	300	300	300
MAP Growth	Fall	181	191	210	222	225	234	244
	Winter	190	200	218	228	232	239	249
	Spring	195	206	223	232	236	241	251

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 the specific instructional weeks set by partners.

E.1. Assessment Overview

The KAP grades 3–8 ELA and mathematics tests are Kansas' state summative assessments aligned to the Kansas College and Career Ready Standards (KCCRS). Based on their test scores, students are placed into one of four performance levels: Level 1, Level 2, Level 3, and Level 4. 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 program. The Level 3 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 100–350.

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 KAP performance 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 KAP assessments in Spring 2019 were included in the study sample. Table E.2 presents the weighted numbers of Kansas students from 14 districts and 87 schools who were included in the linking study. The linking study sample is voluntary and 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 performance 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 in this study for grades 3–8 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.

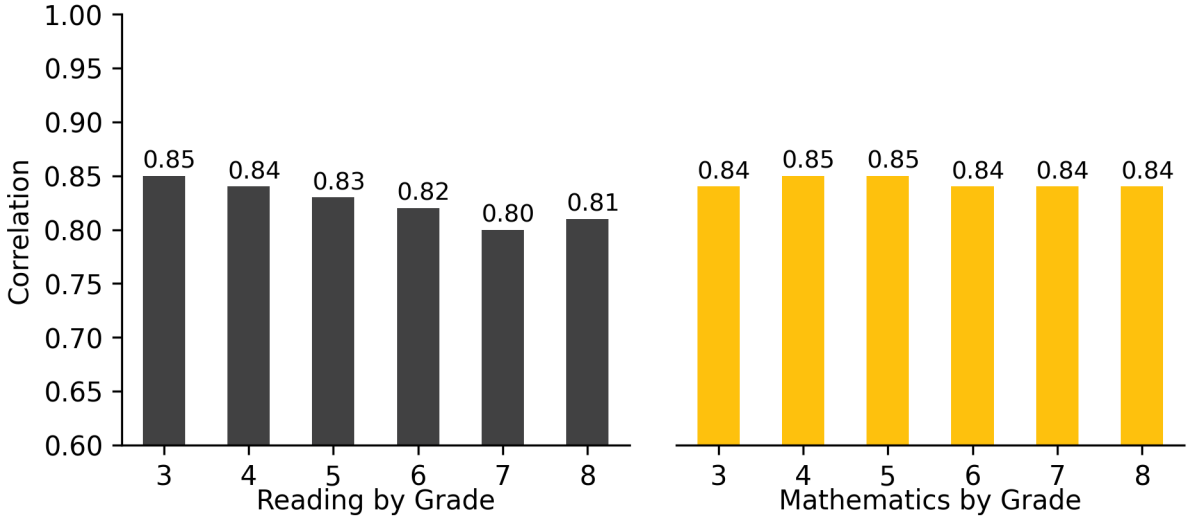
Table E.2. Linking Study Sample

Grade	# Students	
	ELA/Reading	Mathematics
3	3,324	3,331
4	3,357	3,324
5	3,448	3,327
6	3,522	3,557
7	3,473	3,502
8	3,211	3,168

E.4. Test Score Relationships

Correlations between MAP Growth RIT scores and KAP scores range from 0.80 to 0.85 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 KAP assessments.

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

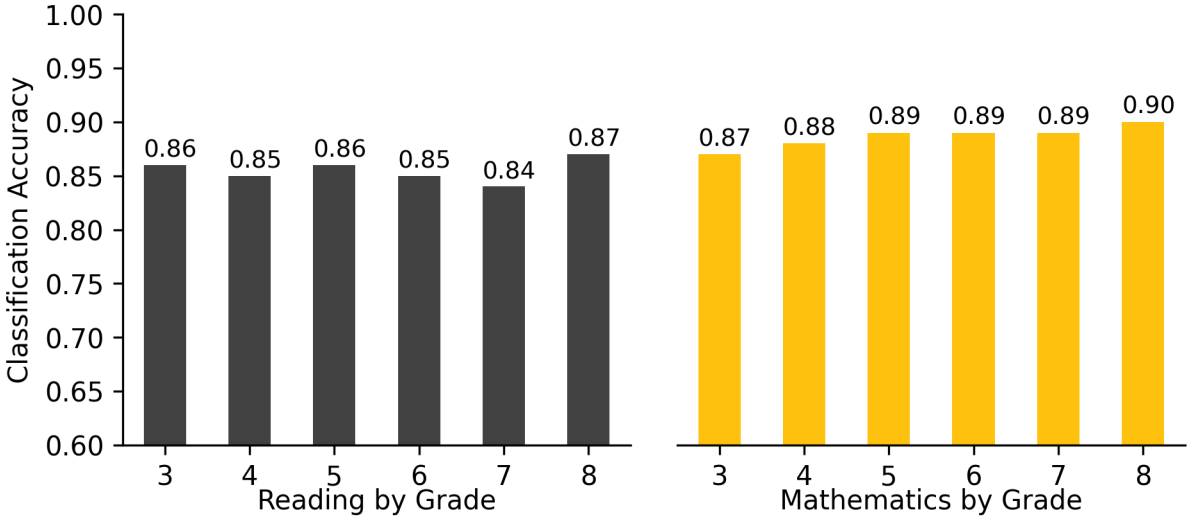


E.5. Accuracy of MAP Growth Classifications

Figure E.2 presents the classification accuracy statistics that show the proportion of students correctly classified by their RIT scores as proficient (Level 3 or higher) or not proficient (lower than Level 3) on the KAP tests.[2] For example, the MAP Growth reading grade 3 Level 3 cut score has a 0.86 accuracy rate, meaning it accurately classified student achievement on the state test for 86% of the sample. The results range from 0.84 to 0.90 across both content areas, indicating that RIT scores have a high accuracy rate of identifying student proficiency on the KAP 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 December 2020 to statistically connect the scores of the Kansas Assessment Program (KAP) grades 3–8 English language arts (ELA) and mathematics assessments 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 to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025). 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 KAP performance 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 KAP tests
5. The probability of achieving grade-level proficiency on the KAP assessment based on MAP Growth RIT scores from fall, winter, and spring using the 2025 norms

1.2. Assessment Overview

The KAP grades 3–8 ELA and mathematics summative assessments are aligned to the Kansas College and Career Ready Standards (KCCRS). Each assessment has three cut scores (i.e., the minimum score a student must get on a test to be placed in a certain performance level) that distinguish between the following performance levels: Level 1, Level 2, Level 3, and Level 4. The Level 3 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 KAP assessments. NWEA requested that Kansas 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 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 KAP 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 performance 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 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. MAP Growth Cut Scores

The equipercentile linking method (Kolen & Brennan, 2004) was used to identify the spring MAP Growth RIT scores that correspond to the spring KAP performance 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 (Level 4 or higher) on the spring KAP 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 MAP Growth 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 performance 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 KAP 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., KAP). 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 KAP tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the KAP 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 KAP tests can be described using classification accuracy statistics based on the MAP Growth spring RIT cut scores that show the proportion of students correctly classified by their RIT scores as proficient (Level 3 or higher) or not proficient (lower than Level 3). 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 KAP data for the Level 3 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
Sensitivity	TP / (TP + FN)	Proportion of students identified by MAP Growth as proficient in those observed as such on the state test

Statistic	Description	Interpretation
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 Level 3 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 (Level 3 or higher) 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 KAP 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 proficiency on the KAP test based on their fall or winter RIT score:

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

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 Level 3 cut score for spring, and
- SD is the conditional standard deviation of the expected growth, g.

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

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

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 KAP assessments in Spring 2019 were included in the study sample. Data used in this study were collected from 14 districts and 87 schools in Kansas. Table 3.1 presents the demographic distributions of race, sex, and performance level in the original unweighted study sample. Table 3.2 presents the demographic distributions of the student population enrolled in the 2018–2019 school year and the performance level distribution of students who took the Spring 2019 KAP tests. Since the unweighted data are different from the general KAP 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 KAP 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	3,325	3,358	3,449	3,522	3,474	3,211
Race	American Indian/ Alaskan Native	1.3	1.5	1.3	1.5	2.0	1.9
	Asian	8.7	8.8	8.2	8.5	8.7	7.4
	Black	4.2	3.6	3.5	4.0	3.5	4.3
	Hispanic	15.5	16.5	16.4	13.9	15.3	16.8
	Multi-Race	4.2	4.1	4.8	4.6	4.7	4.4
	White	66.2	65.5	65.8	67.4	65.8	65.2
Sex	Female	47.8	49.7	49.8	49.1	48.6	50.0
	Male	52.2	50.3	50.2	50.9	51.4	50.0
Performance Level	Level 1	20.1	11.3	17.3	23.5	25.8	21.6
	Level 2	28.3	27.5	25.7	24.9	29.9	45.7
	Level 3	32.0	44.3	33.7	43.6	30.7	26.3
	Level 4	19.7	17.0	23.2	8.0	13.5	6.4
Mathematics							
	Total N	3,332	3,325	3,328	3,558	3,503	3,169
Race	American Indian/ Alaskan Native	1.3	1.5	1.4	1.6	2.0	1.9
	Asian	8.6	8.5	7.4	8.5	8.5	6.4
	Black	4.2	3.7	3.6	4.0	3.6	4.3
	Hispanic	15.8	16.7	17.1	14.2	15.2	17.0
	Multi-Race	4.2	4.1	4.8	4.6	4.7	4.4
	White	65.8	65.6	65.7	67.1	66.0	66.0
Sex	Female	47.8	50.0	50.2	49.1	48.5	50.4
	Male	52.2	50.0	49.8	50.9	51.5	49.6
Performance Level	Level 1	13.6	11.4	21.6	21.7	15.7	31.7
	Level 2	26.6	41.5	38.1	37.0	45.6	35.0
	Level 3	35.8	30.1	24.3	28.2	31.2	23.5

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
	Level 4	24.0	17.0	16.0	13.1	7.5	9.8

Table 3.2. Spring 2019 KAP Student Population Demographics

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA							
	Total N	36,525	37,012	37,852	37,708	36,863	36,386
Race	American Indian/ Alaskan Native	0.7	0.8	0.8	0.7	0.8	0.9
	Asian	3.0	3.0	2.9	3.1	3.0	2.8
	Black	6.9	7.1	7.1	6.8	7.1	6.8
	Hispanic	20.2	20.8	20.8	20.2	20.4	20.2
	Multi-Race	5.6	5.4	5.5	5.6	5.4	5.4
	White	63.6	63.0	62.8	63.6	63.3	63.9
Sex	Female	48.7	48.8	49.0	48.6	49.1	48.8
	Male	51.3	51.2	51.0	51.4	50.9	51.2
Performance Level	Level 1	28.6	17.1	25.8	34.3	36.4	29.9
	Level 2	30.8	35.3	30.7	27.2	31.8	44.9
	Level 3	27.1	37.8	28.8	33.8	23.2	20.8
	Level 4	13.5	9.8	14.7	4.6	8.6	4.4
Mathematics							
	Total N	36,525	37,012	37,852	37,708	36,863	36,386
Race	American Indian/ Alaskan Native	0.7	0.8	0.8	0.7	0.8	0.9
	Asian	3.0	3.0	2.9	3.1	3.0	2.8
	Black	6.9	7.1	7.1	6.8	7.1	6.8
	Hispanic	20.2	20.8	20.8	20.2	20.4	20.2
	Multi-Race	5.6	5.4	5.5	5.6	5.4	5.4
	White	63.6	63.0	62.8	63.6	63.3	63.9
Sex	Female	48.7	48.8	49.0	48.6	49.1	48.8
	Male	51.3	51.2	51.0	51.4	50.9	51.2
Performance Level	Level 1	18.2	17.7	28.6	30.1	24.0	38.7
	Level 2	31.5	46.3	39.5	38.0	48.1	35.4
	Level 3	33.7	25.7	21.2	22.4	23.5	19.4
	Level 4	16.6	10.4	10.7	9.5	4.5	6.5

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	3,324	3,357	3,448	3,522	3,473	3,211
Race	American Indian/ Alaskan Native	0.7	0.8	0.8	0.7	0.8	0.9
	Asian	3.0	3.0	2.9	3.1	3.0	2.8
	Black	6.9	7.1	7.1	6.8	7.1	6.8
	Hispanic	20.2	20.8	20.9	20.2	20.4	20.2
	Multi-Race	5.6	5.4	5.5	5.6	5.4	5.4
	White	63.6	63.0	62.8	63.6	63.3	63.9
Sex	Female	48.7	48.8	49.0	48.6	49.1	48.8
	Male	51.3	51.2	51.0	51.4	50.9	51.2
Performance Level	Level 1	28.6	17.1	25.8	34.3	36.4	29.9
	Level 2	30.8	35.3	30.7	27.2	31.8	44.9
	Level 3	27.1	37.8	28.8	33.8	23.2	20.8
	Level 4	13.5	9.8	14.7	4.6	8.6	4.4
Mathematics							
	Total N	3,331	3,324	3,327	3,557	3,502	3,168
Race	American Indian/ Alaskan Native	0.7	0.8	0.8	0.7	0.8	0.9
	Asian	3.0	3.0	2.9	3.1	3.0	2.8
	Black	6.9	7.1	7.1	6.8	7.1	6.8
	Hispanic	20.2	20.8	20.9	20.2	20.4	20.2
	Multi-Race	5.6	5.4	5.5	5.6	5.4	5.4
	White	63.6	63.0	62.8	63.6	63.3	63.9
Sex	Female	48.7	48.8	49.0	48.6	49.1	48.8
	Male	51.3	51.2	51.0	51.4	50.9	51.2
Performance Level	Level 1	18.2	17.7	28.6	30.1	24.0	38.7
	Level 2	31.5	46.3	39.5	38.0	48.1	35.4
	Level 3	33.7	25.7	21.2	22.4	23.5	19.4
	Level 4	16.6	10.4	10.7	9.5	4.5	6.5

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and KAP test scores from Spring 2019, including the correlation coefficients (*r*) between them. The correlation coefficients between the scores range from 0.80 to 0.85 for ELA/reading and 0.84 to 0.85 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 KAP assessments.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	*r*	KAP				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
ELA/Reading										
3	3,324	0.85	294.5	29.6	220	380	198.4	15.8	144	241
4	3,357	0.84	299.0	28.6	220	380	205.6	15.5	149	248
5	3,448	0.83	295.9	29.6	220	380	211.5	14.5	158	263
6	3,522	0.82	290.3	29.1	220	380	216.1	14.5	158	256
7	3,473	0.80	288.2	30.8	220	380	219.3	15.2	159	271
8	3,211	0.81	282.1	28.4	220	380	222.7	15.4	153	266
Mathematics										
3	3,331	0.84	302.8	28.0	220	380	203.1	14.2	148	282
4	3,324	0.85	292.8	28.7	220	380	212.0	15.2	150	278
5	3,327	0.85	290.6	27.1	220	380	220.7	16.0	160	284
6	3,557	0.84	290.9	27.3	220	380	224.0	16.4	164	301
7	3,502	0.84	288.0	28.0	220	380	228.7	17.9	158	292
8	3,168	0.84	285.3	28.2	220	380	234.1	18.5	168	286

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

3.3. MAP Growth Cut Scores

Table 3.5 and Table 3.6 present the KAP 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 performance level on the KAP 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 195 in the fall is likely to achieve Level 3 performance on the KAP ELA test. A grade 3 student who obtained a MAP Growth reading RIT score of 200 in the winter is also likely to achieve Level 3 performance on the KAP 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 performance level could be different from the generic projection presented in this document. Partners are therefore encouraged to use the projected performance 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

KAP ELA								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
3	220–275		276–299		**300**–326		327–380	
4	220–270		271–299		**300**–334		335–380	
5	220–274		275–299		**300**–325		326–380	
6	220–276		277–299		**300**–335		336–380	
7	220–274		275–299		**300**–334		335–380	
8	220–264		265–299		**300**–333		334–380	
MAP Growth Reading								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–165	1–40	166–181	41–75	**182**–198	76–94	199–350	95–99
3	100–180	1–41	181–194	42–70	**195**–208	71–90	209–350	91–99
4	100–183	1–24	184–202	25–64	**203**–219	65–90	220–350	91–99
5	100–196	1–34	197–211	35–67	**212**–222	68–86	223–350	87–99
6	100–207	1–47	208–219	48–73	**220**–233	74–92	234–350	93–99
7	100–213	1–53	214–224	54–77	**225**–236	78–92	237–350	93–99
8	100–214	1–47	215–230	48–81	**231**–243	82–94	244–350	95–99
Winter								
2	100–171	1–38	172–187	39–74	**188**–204	75–94	205–350	95–99
3	100–186	1–43	187–199	44–70	**200**–213	71–90	214–350	91–99
4	100–187	1–25	188–205	26–63	**206**–221	64–89	222–350	90–99
5	100–199	1–35	200–214	36–68	**215**–223	69–84	224–350	85–99
6	100–208	1–45	209–220	46–72	**221**–234	73–92	235–350	93–99
7	100–214	1–52	215–225	53–76	**226**–237	77–92	238–350	93–99
8	100–215	1–47	216–231	48–80	**232**–244	81–94	245–350	95–99
Spring								
2	100–177	1–41	178–191	42–71	**192**–206	72–92	207–350	93–99
3	100–190	1–43	191–202	44–68	**203**–214	69–87	215–350	88–99
4	100–191	1–27	192–207	28–62	**208**–222	63–87	223–350	88–99
5	100–202	1–37	203–215	38–66	**216**–224	67–82	225–350	83–99
6	100–210	1–47	211–221	48–71	**222**–235	72–91	236–350	92–99
7	100–215	1–52	216–226	53–75	**227**–238	76–91	239–350	92–99
8	100–216	1–47	217–232	48–80	**233**–245	81–94	246–350	95–99

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

KAP Mathematics								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
3	220–275		276–299		**300**–328		329–380	
4	220–265		266–299		**300**–330		331–380	
5	220–272		273–299		**300**–325		326–380	
6	220–272		273–299		**300**–328		329–380	
7	220–265		266–299		**300**–341		342–380	
8	220–273		274–299		**300**–335		336–380	
MAP Growth Mathematics								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–160	1–21	161–180	22–69	**181**–198	70–94	199–350	95–99
3	100–175	1–29	176–190	30–66	**191**–205	67–91	206–350	92–99
4	100–188	1–30	189–209	31–78	**210**–222	79–94	223–350	95–99
5	100–202	1–41	203–221	42–82	**222**–233	83–95	234–350	96–99
6	100–206	1–41	207–224	42–81	**225**–237	82–95	238–350	96–99
7	100–210	1–35	211–233	36–83	**234**–251	84–97	252–350	98–99
8	100–225	1–58	226–243	59–87	**244**–257	88–97	258–350	98–99
Winter								
2	100–169	1–23	170–189	24–70	**190**–206	71–94	207–350	95–99
3	100–183	1–29	184–199	30–66	**200**–214	67–90	215–350	91–99
4	100–195	1–30	196–217	31–78	**218**–230	79–93	231–350	94–99
5	100–208	1–43	209–227	44–81	**228**–240	82–94	241–350	95–99
6	100–212	1–42	213–231	43–81	**232**–244	82–94	245–350	95–99
7	100–214	1–36	215–238	37–83	**239**–256	84–97	257–350	98–99
8	100–229	1–57	230–248	58–87	**249**–263	88–97	264–350	98–99
Spring								
2	100–176	1–25	177–194	26–67	**195**–210	68–92	211–350	93–99
3	100–190	1–31	191–205	32–65	**206**–219	66–88	220–350	89–99
4	100–201	1–32	202–222	33–75	**223**–235	76–91	236–350	92–99
5	100–212	1–43	213–231	44–80	**232**–244	81–93	245–350	94–99
6	100–216	1–42	217–235	43–79	**236**–248	80–93	249–350	94–99
7	100–217	1–37	218–240	38–80	**241**–258	81–96	259–350	97–99
8	100–232	1–57	233–250	58–85	**251**–264	86–95	265–350	96–99

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 KAP tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.84 to 0.87 for ELA/reading and 0.87 to 0.90 for mathematics. These values suggest that the RIT cut scores are good at classifying students as proficient (Level 3 or higher) or not proficient (lower than Level 3) on the KAP assessment.

Although the results show that MAP Growth scores can be used to accurately classify students as likely to be proficient on the KAP tests, there is a notable limitation to how these results should be used and interpreted. The KAP 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	KAP		FP	FN				
ELA/Reading										
3	3,324	203	300	0.86	0.15	0.13	0.87	0.85	0.80	0.94
4	3,357	208	300	0.85	0.17	0.13	0.87	0.83	0.83	0.93
5	3,448	216	300	0.86	0.12	0.17	0.83	0.88	0.84	0.93
6	3,522	222	300	0.85	0.12	0.21	0.79	0.88	0.80	0.92
7	3,473	227	300	0.84	0.13	0.23	0.77	0.87	0.74	0.92
8	3,211	233	300	0.87	0.10	0.23	0.77	0.90	0.72	0.93
Mathematics										
3	3,331	204	300	0.87	0.16	0.10	0.90	0.84	0.85	0.94
4	3,324	218	300	0.88	0.09	0.17	0.83	0.91	0.84	0.95
5	3,327	229	300	0.89	0.09	0.16	0.84	0.91	0.82	0.95
6	3,557	233	300	0.89	0.07	0.19	0.81	0.93	0.84	0.96
7	3,502	239	300	0.89	0.10	0.14	0.86	0.90	0.78	0.95
8	3,168	247	300	0.90	0.07	0.17	0.83	0.93	0.80	0.96

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

3.5. Proficiency Projections

Table 3.8 and Table 3.9 present the estimated probability of achieving proficiency (Level 3 or higher) performance on the KAP test based on RIT scores from fall, winter, or spring. “Prob.” indicates the probability of obtaining proficient status on the KAP test in the spring. For example, a grade 3 student who obtained a MAP Growth reading score of 204 in the fall has a 78% chance of reaching proficiency on the KAP test.

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	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
2	5	192	142	No	<0.01	149	No	<0.01	153	No	<0.01
	10	192	148	No	<0.01	155	No	<0.01	159	No	<0.01
	15	192	152	No	<0.01	159	No	<0.01	164	No	<0.01
	20	192	156	No	0.01	162	No	<0.01	167	No	<0.01
	25	192	159	No	0.01	165	No	0.01	170	No	<0.01
	30	192	161	No	0.02	168	No	0.02	173	No	<0.01
	35	192	163	No	0.04	170	No	0.03	175	No	<0.01
	40	192	166	No	0.06	172	No	0.05	177	No	<0.01
	45	192	168	No	0.09	175	No	0.07	180	No	<0.01
	50	192	170	No	0.13	177	No	0.11	182	No	<0.01
	55	192	172	No	0.16	179	No	0.17	184	No	0.01
	60	192	174	No	0.22	181	No	0.2	186	No	0.04
	65	192	177	No	0.33	183	No	0.27	188	No	0.13
	70	192	179	No	0.37	186	No	0.41	191	No	0.39
	75	192	182	Yes	0.5	188	Yes	0.5	193	Yes	0.61
	80	192	184	Yes	0.59	191	Yes	0.59	196	Yes	0.87
	85	192	188	Yes	0.71	194	Yes	0.73	200	Yes	0.99
	90	192	192	Yes	0.84	199	Yes	0.86	204	Yes	>0.99
	95	192	198	Yes	0.94	205	Yes	0.96	210	Yes	>0.99
3	5	203	155	No	<0.01	160	No	<0.01	164	No	<0.01
	10	203	161	No	<0.01	167	No	<0.01	171	No	<0.01
	15	203	166	No	<0.01	171	No	<0.01	175	No	<0.01
	20	203	169	No	<0.01	175	No	<0.01	179	No	<0.01
	25	203	172	No	0.01	178	No	0.01	182	No	<0.01
	30	203	175	No	0.02	180	No	0.02	184	No	<0.01
	35	203	178	No	0.05	183	No	0.04	187	No	<0.01
	40	203	180	No	0.07	185	No	0.05	189	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	45	203	182	No	0.09	188	No	0.09	192	No	<0.01
	50	203	185	No	0.16	190	No	0.14	194	No	0.01
	55	203	187	No	0.22	192	No	0.2	196	No	0.02
	60	203	189	No	0.29	194	No	0.24	198	No	0.08
	65	203	192	No	0.37	197	No	0.36	201	No	0.28
	70	203	194	No	0.46	199	No	0.45	203	Yes	0.5
	75	203	197	Yes	0.54	202	Yes	0.59	206	Yes	0.8
	80	203	200	Yes	0.67	205	Yes	0.68	209	Yes	0.96
	85	203	204	Yes	0.78	209	Yes	0.83	213	Yes	>0.99
	90	203	208	Yes	0.89	213	Yes	0.91	217	Yes	>0.99
	95	203	215	Yes	0.97	220	Yes	0.98	224	Yes	>0.99
	5	208	166	No	<0.01	170	No	<0.01	173	No	<0.01
	10	208	173	No	<0.01	177	No	<0.01	179	No	<0.01
	15	208	177	No	<0.01	181	No	<0.01	184	No	<0.01
	20	208	181	No	0.01	184	No	0.01	187	No	<0.01
	25	208	184	No	0.03	187	No	0.02	190	No	<0.01
	30	208	186	No	0.04	190	No	0.04	193	No	<0.01
	35	208	189	No	0.08	193	No	0.07	195	No	<0.01
	40	208	191	No	0.12	195	No	0.1	198	No	<0.01
4	45	208	194	No	0.17	197	No	0.16	200	No	0.01
	50	208	196	No	0.24	199	No	0.23	202	No	0.04
	55	208	198	No	0.32	202	No	0.31	204	No	0.13
	60	208	200	No	0.41	204	No	0.4	207	No	0.39
	65	208	203	Yes	0.5	206	Yes	0.5	209	Yes	0.61
	70	208	205	Yes	0.59	209	Yes	0.65	211	Yes	0.8
	75	208	208	Yes	0.72	211	Yes	0.69	214	Yes	0.96
	80	208	211	Yes	0.8	214	Yes	0.81	217	Yes	0.99
	85	208	215	Yes	0.9	218	Yes	0.92	220	Yes	>0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	90	208	219	Yes	0.95	222	Yes	0.97	225	Yes	>0.99
	95	208	226	Yes	0.99	229	Yes	>0.99	231	Yes	>0.99
5	5	216	175	No	<0.01	178	No	<0.01	180	No	<0.01
	10	216	181	No	<0.01	184	No	<0.01	186	No	<0.01
	15	216	186	No	<0.01	189	No	<0.01	191	No	<0.01
	20	216	189	No	0.01	192	No	0.01	194	No	<0.01
	25	216	192	No	0.01	195	No	0.01	197	No	<0.01
	30	216	195	No	0.03	197	No	0.02	199	No	<0.01
	35	216	197	No	0.06	200	No	0.05	202	No	<0.01
	40	216	199	No	0.07	202	No	0.08	204	No	<0.01
	45	216	201	No	0.11	204	No	0.1	206	No	<0.01
	50	216	204	No	0.2	206	No	0.15	208	No	0.01
	55	216	206	No	0.23	209	No	0.26	211	No	0.08
	60	216	208	No	0.31	211	No	0.3	213	No	0.2
	65	216	210	No	0.4	213	No	0.4	215	No	0.39
	70	216	213	Yes	0.5	215	Yes	0.5	217	Yes	0.61
	75	216	215	Yes	0.6	218	Yes	0.65	220	Yes	0.87
	80	216	218	Yes	0.73	221	Yes	0.78	223	Yes	0.98
	85	216	222	Yes	0.84	224	Yes	0.88	226	Yes	>0.99
	90	216	226	Yes	0.93	228	Yes	0.95	230	Yes	>0.99
	95	216	232	Yes	0.99	235	Yes	0.99	237	Yes	>0.99
6	5	222	181	No	<0.01	183	No	<0.01	185	No	<0.01
	10	222	187	No	<0.01	189	No	<0.01	191	No	<0.01
	15	222	191	No	<0.01	193	No	<0.01	195	No	<0.01
	20	222	195	No	<0.01	197	No	<0.01	198	No	<0.01
	25	222	198	No	0.01	199	No	0.01	201	No	<0.01
	30	222	200	No	0.01	202	No	0.01	203	No	<0.01
	35	222	202	No	0.03	204	No	0.02	206	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	40	222	205	No	0.06	206	No	0.04	208	No	<0.01
	45	222	207	No	0.07	209	No	0.08	210	No	<0.01
	50	222	209	No	0.11	211	No	0.1	212	No	<0.01
	55	222	211	No	0.16	213	No	0.16	214	No	0.01
	60	222	213	No	0.23	215	No	0.22	216	No	0.04
	65	222	215	No	0.27	217	No	0.31	218	No	0.13
	70	222	218	No	0.4	219	No	0.4	221	No	0.39
	75	222	220	Yes	0.5	222	Yes	0.55	223	Yes	0.61
	80	222	223	Yes	0.64	225	Yes	0.69	226	Yes	0.87
	85	222	226	Yes	0.77	228	Yes	0.81	229	Yes	0.98
	90	222	231	Yes	0.91	232	Yes	0.92	233	Yes	>0.99
	95	222	237	Yes	0.98	238	Yes	0.98	239	Yes	>0.99
7	5	227	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	227	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	227	195	No	<0.01	196	No	<0.01	197	No	<0.01
	20	227	198	No	<0.01	200	No	<0.01	201	No	<0.01
	25	227	201	No	0.01	202	No	<0.01	203	No	<0.01
	30	227	204	No	0.01	205	No	0.01	206	No	<0.01
	35	227	206	No	0.02	207	No	0.01	208	No	<0.01
	40	227	208	No	0.03	210	No	0.03	211	No	<0.01
	45	227	210	No	0.05	212	No	0.04	213	No	<0.01
	50	227	212	No	0.08	214	No	0.07	215	No	<0.01
	55	227	214	No	0.1	216	No	0.11	217	No	<0.01
	60	227	217	No	0.18	218	No	0.16	219	No	0.01
	65	227	219	No	0.24	220	No	0.23	221	No	0.04
	70	227	221	No	0.32	223	No	0.36	224	No	0.2
	75	227	224	No	0.45	225	No	0.45	226	No	0.39
	80	227	226	Yes	0.55	228	Yes	0.6	229	Yes	0.72

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	85	227	230	Yes	0.72	231	Yes	0.73	232	Yes	0.92
	90	227	234	Yes	0.85	235	Yes	0.86	237	Yes	>0.99
	95	227	240	Yes	0.96	241	Yes	0.97	243	Yes	>0.99
8	5	233	188	No	<0.01	189	No	<0.01	190	No	<0.01
	10	233	194	No	<0.01	195	No	<0.01	196	No	<0.01
	15	233	198	No	<0.01	199	No	<0.01	200	No	<0.01
	20	233	201	No	<0.01	203	No	<0.01	203	No	<0.01
	25	233	204	No	<0.01	205	No	<0.01	206	No	<0.01
	30	233	207	No	<0.01	208	No	<0.01	209	No	<0.01
	35	233	209	No	0.01	210	No	0.01	211	No	<0.01
	40	233	211	No	0.02	213	No	0.01	213	No	<0.01
	45	233	214	No	0.03	215	No	0.02	216	No	<0.01
	50	233	216	No	0.04	217	No	0.04	218	No	<0.01
	55	233	218	No	0.07	219	No	0.06	220	No	<0.01
	60	233	220	No	0.11	221	No	0.1	222	No	<0.01
	65	233	222	No	0.15	223	No	0.14	224	No	0.01
	70	233	225	No	0.25	226	No	0.24	227	No	0.04
	75	233	227	No	0.33	228	No	0.32	229	No	0.13
	80	233	230	No	0.45	231	No	0.45	232	No	0.39
	85	233	233	Yes	0.59	235	Yes	0.64	236	Yes	0.8
	90	233	238	Yes	0.79	239	Yes	0.8	240	Yes	0.98
	95	233	244	Yes	0.93	245	Yes	0.94	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	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
2	5	195	147	No	<0.01	155	No	<0.01	161	No	<0.01
	10	195	153	No	<0.01	161	No	<0.01	167	No	<0.01
	15	195	157	No	<0.01	165	No	<0.01	171	No	<0.01
	20	195	160	No	0.01	168	No	0.01	174	No	<0.01
	25	195	162	No	0.02	171	No	0.01	177	No	<0.01
	30	195	165	No	0.03	173	No	0.02	179	No	<0.01
	35	195	167	No	0.06	175	No	0.04	181	No	<0.01
	40	195	169	No	0.09	177	No	0.07	183	No	<0.01
	45	195	171	No	0.14	179	No	0.09	185	No	<0.01
	50	195	173	No	0.2	181	No	0.14	187	No	0.01
	55	195	175	No	0.23	183	No	0.21	189	No	0.04
	60	195	177	No	0.31	185	No	0.3	192	No	0.2
	65	195	179	No	0.4	187	No	0.4	194	No	0.39
	70	195	181	Yes	0.5	189	No	0.45	196	Yes	0.61
	75	195	183	Yes	0.6	192	Yes	0.6	198	Yes	0.8
	80	195	186	Yes	0.69	194	Yes	0.7	201	Yes	0.96
	85	195	189	Yes	0.8	197	Yes	0.82	204	Yes	0.99
	90	195	193	Yes	0.89	201	Yes	0.91	208	Yes	>0.99
	95	195	198	Yes	0.97	207	Yes	0.98	214	Yes	>0.99
3	5	206	158	No	<0.01	166	No	<0.01	171	No	<0.01
	10	206	164	No	<0.01	172	No	<0.01	177	No	<0.01
	15	206	168	No	<0.01	176	No	<0.01	181	No	<0.01
	20	206	171	No	0.01	179	No	<0.01	185	No	<0.01
	25	206	174	No	0.01	182	No	0.01	188	No	<0.01
	30	206	176	No	0.03	184	No	0.02	190	No	<0.01
	35	206	178	No	0.05	186	No	0.04	193	No	<0.01
	40	206	180	No	0.08	189	No	0.08	195	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	45	206	182	No	0.13	191	No	0.13	197	No	0.01
	50	206	184	No	0.19	193	No	0.17	199	No	0.02
	55	206	186	No	0.26	195	No	0.24	201	No	0.08
	60	206	188	No	0.35	197	No	0.34	203	No	0.2
	65	206	190	No	0.45	199	No	0.45	206	Yes	0.5
	70	206	192	Yes	0.55	201	Yes	0.55	208	Yes	0.72
	75	206	195	Yes	0.7	204	Yes	0.71	211	Yes	0.92
	80	206	197	Yes	0.78	206	Yes	0.8	213	Yes	0.98
	85	206	200	Yes	0.87	210	Yes	0.89	217	Yes	>0.99
	90	206	204	Yes	0.95	214	Yes	0.96	221	Yes	>0.99
	95	206	210	Yes	0.99	220	Yes	>0.99	227	Yes	>0.99
	5	223	171	No	<0.01	176	No	<0.01	180	No	<0.01
	10	223	177	No	<0.01	183	No	<0.01	187	No	<0.01
	15	223	181	No	<0.01	187	No	<0.01	191	No	<0.01
	20	223	184	No	<0.01	190	No	<0.01	195	No	<0.01
	25	223	186	No	<0.01	193	No	<0.01	198	No	<0.01
	30	223	189	No	<0.01	196	No	<0.01	201	No	<0.01
	35	223	191	No	0.01	198	No	<0.01	203	No	<0.01
	40	223	193	No	0.02	200	No	0.01	206	No	<0.01
4	45	223	195	No	0.03	202	No	0.02	208	No	<0.01
	50	223	197	No	0.05	204	No	0.03	210	No	<0.01
	55	223	199	No	0.09	207	No	0.08	212	No	<0.01
	60	223	201	No	0.13	209	No	0.1	215	No	0.01
	65	223	203	No	0.19	211	No	0.16	217	No	0.04
	70	223	205	No	0.27	213	No	0.24	220	No	0.2
	75	223	208	No	0.4	216	No	0.39	222	No	0.39
	80	223	210	Yes	0.5	219	Yes	0.56	225	Yes	0.72
	85	223	214	Yes	0.69	222	Yes	0.72	229	Yes	0.96

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	90	223	217	Yes	0.81	226	Yes	0.87	233	Yes	>0.99
	95	223	223	Yes	0.95	232	Yes	0.98	240	Yes	>0.99
5	5	232	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	232	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	232	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	232	193	No	<0.01	197	No	<0.01	200	No	<0.01
	25	232	195	No	<0.01	200	No	<0.01	204	No	<0.01
	30	232	198	No	<0.01	203	No	<0.01	206	No	<0.01
	35	232	200	No	<0.01	205	No	<0.01	209	No	<0.01
	40	232	202	No	0.01	207	No	<0.01	211	No	<0.01
	45	232	204	No	0.01	210	No	0.01	214	No	<0.01
	50	232	206	No	0.02	212	No	0.01	216	No	<0.01
	55	232	208	No	0.04	214	No	0.02	218	No	<0.01
	60	232	210	No	0.06	216	No	0.04	221	No	<0.01
	65	232	212	No	0.1	219	No	0.1	223	No	0.01
	70	232	215	No	0.19	221	No	0.16	226	No	0.04
	75	232	217	No	0.26	224	No	0.28	228	No	0.13
	80	232	220	No	0.4	226	No	0.39	232	Yes	0.5
	85	232	223	Yes	0.55	230	Yes	0.61	235	Yes	0.8
	90	232	227	Yes	0.74	234	Yes	0.8	240	Yes	0.99
	95	232	233	Yes	0.94	240	Yes	0.96	246	Yes	>0.99
6	5	236	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	236	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	236	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	236	197	No	<0.01	201	No	<0.01	205	No	<0.01
	25	236	199	No	<0.01	204	No	<0.01	208	No	<0.01
	30	236	202	No	<0.01	207	No	<0.01	211	No	<0.01
	35	236	204	No	<0.01	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	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	40	236	206	No	0.01	212	No	<0.01	216	No	<0.01
	45	236	208	No	0.01	214	No	0.01	218	No	<0.01
	50	236	210	No	0.02	216	No	0.01	220	No	<0.01
	55	236	212	No	0.04	218	No	0.03	223	No	<0.01
	60	236	214	No	0.07	220	No	0.05	225	No	<0.01
	65	236	216	No	0.11	223	No	0.11	227	No	0.01
	70	236	219	No	0.19	225	No	0.17	230	No	0.04
	75	236	221	No	0.31	228	No	0.29	233	No	0.2
	80	236	224	No	0.45	231	No	0.45	236	Yes	0.5
	85	236	227	Yes	0.6	234	Yes	0.61	239	Yes	0.8
	90	236	231	Yes	0.77	238	Yes	0.79	244	Yes	0.99
	95	236	237	Yes	0.93	245	Yes	0.96	251	Yes	>0.99
7	5	241	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	241	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	241	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	241	203	No	<0.01	206	No	<0.01	208	No	<0.01
	25	241	206	No	<0.01	209	No	<0.01	211	No	<0.01
	30	241	208	No	<0.01	211	No	<0.01	214	No	<0.01
	35	241	211	No	<0.01	214	No	<0.01	216	No	<0.01
	40	241	213	No	0.01	216	No	<0.01	219	No	<0.01
	45	241	215	No	0.01	219	No	0.01	221	No	<0.01
	50	241	217	No	0.02	221	No	0.01	224	No	<0.01
	55	241	219	No	0.03	223	No	0.02	226	No	<0.01
	60	241	222	No	0.07	226	No	0.06	229	No	<0.01
	65	241	224	No	0.11	228	No	0.1	231	No	<0.01
	70	241	226	No	0.17	231	No	0.15	234	No	0.02
	75	241	229	No	0.27	233	No	0.22	237	No	0.13
	80	241	232	No	0.4	236	No	0.35	240	No	0.39

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	85	241	235	Yes	0.55	240	Yes	0.55	244	Yes	0.8
	90	241	239	Yes	0.73	245	Yes	0.78	249	Yes	0.99
	95	241	246	Yes	0.93	251	Yes	0.94	256	Yes	>0.99
8	5	251	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	251	199	No	<0.01	201	No	<0.01	203	No	<0.01
	15	251	203	No	<0.01	206	No	<0.01	208	No	<0.01
	20	251	207	No	<0.01	210	No	<0.01	212	No	<0.01
	25	251	210	No	<0.01	213	No	<0.01	215	No	<0.01
	30	251	212	No	<0.01	216	No	<0.01	218	No	<0.01
	35	251	215	No	<0.01	219	No	<0.01	221	No	<0.01
	40	251	217	No	<0.01	221	No	<0.01	224	No	<0.01
	45	251	220	No	<0.01	224	No	<0.01	226	No	<0.01
	50	251	222	No	0.01	226	No	<0.01	229	No	<0.01
	55	251	224	No	0.01	228	No	0.01	231	No	<0.01
	60	251	227	No	0.03	231	No	0.02	234	No	<0.01
	65	251	229	No	0.04	233	No	0.03	237	No	<0.01
	70	251	232	No	0.08	236	No	0.07	239	No	<0.01
	75	251	234	No	0.13	239	No	0.1	242	No	0.01
	80	251	237	No	0.21	242	No	0.19	246	No	0.08
	85	251	241	No	0.37	246	No	0.35	250	No	0.39
	90	251	246	Yes	0.59	251	Yes	0.6	255	Yes	0.87
	95	251	252	Yes	0.82	258	Yes	0.87	262	Yes	>0.99

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