Predicting Proficiency on the Kentucky Summative Assessment (KSA) Based on NWEA MAP Growth Scores

July 2025

NWEA Psychometrics and Analytics

nwea

Linking Study Updates

Date	Description
2016-02-01	Initial linking study conducted for Kentucky in mathematics & reading grades 3–8 using Spring 2015 data.
2020-07-20	Updated since the previous version published in February 2016 to incorporate the 2020 MAP Growth norms.
2023-03-24	Updated with new cuts for mathematics & reading grades 3–8 & 10, editing & mechanics grades 5 & 8, and science grades 4 & 7 based on Spring 2022 data. Added projected proficiency for grade 2 using grade 3 scores and grade 9 using grade 10 scores.
2025-07	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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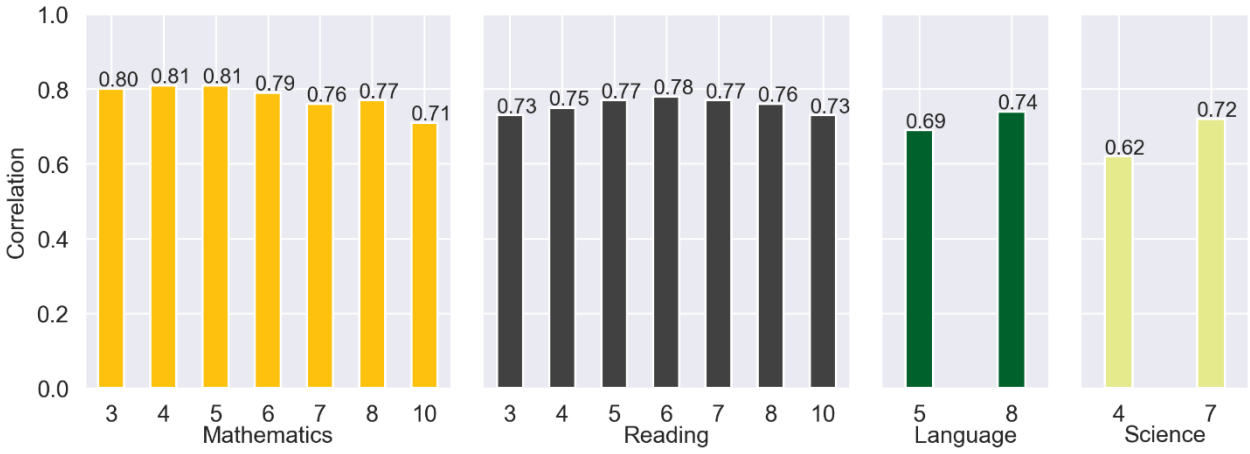
Executive Summary

Linking studies allow partners to use MAP® Growth™ Rasch Unit (RIT) scores throughout the year to predict students' likely performance levels on state summative assessments. This is accomplished through statistical analyses that produce RIT cut scores that correspond to the state summative performance levels. A "cut score" is the minimum score a student must get on a test to be placed in a certain performance level. The linking study for the Kentucky Summative Assessment (KSA) described in this report provides RIT cut scores for the fall, winter, and spring MAP Growth administrations that correspond to the KSA performance levels for mathematics and reading in grades 3–8 and 10, editing and mechanics in grades 5 and 8, and science in grades 4 and 7.

The linking study is based on test scores from students in grades 3–10 who took both the MAP Growth and KSA assessments in Spring 2022. The linking study sample included 162,281 students across 92 districts and 647 schools in Kentucky. Scores from both tests were used as the basis for linking the two assessments together.

Before the linking analyses began, NWEA confirmed that the MAP Growth and KSA assessments were aligned on the same or similar set of content standards to warrant a connection. The link between the two tests was further investigated by calculating the Pearson correlation coefficients that relate the relationship between the specific MAP Growth and KSA test scores. A positive correlation of $r \geq 0.70$ is considered a "high" correlation. This indicates that students who perform well on one assessment also tend to perform well on the other, and vice versa. A perfect positive correlation is 1.00. As shown in Figure E.1, the correlations between the MAP Growth and KSA test scores from Spring 2022 are mostly consistent with expectations, except for the linkages for MAP Growth language grade 5 with KSA editing and mechanics grade 5 ($r = 0.69$) and for MAP Growth science grade 4 with KSA science grade 4 ($r = 0.62$). As such, NWEA suggests that readers use the RIT cuts for these tests with caution. The correlations for all other matchups show that MAP Growth is a good assessment for predicting performance on the KSA.

Figure E.1. Correlations Between MAP Growth and KSA Test Scores by Grade



The equipercentile linking method (Kolen & Brennan, 2004) was used to produce the RIT cut scores for the spring administration that correspond to performance levels on the KSA assessments for every subject and grade. MAP Growth cut scores for grades 2 and 9, as well as those for the fall and winter administrations of all grades, are also provided so that educators can track grades 2 and 9 students' progress on the KSA test by grades 3 and 10, respectively, alongside all other students, early in the year. These cut scores were derived from the spring cuts[1] and the growth norms for the adjacent grades (i.e., grades 2 to 3 or grades 9 to 10), or fall and winter administrations to the spring administration. While RIT cut scores were generated for every performance level on the KSA assessments, Table E.1 presents the *Proficient* cut scores that indicate the minimum score a student must get to be considered proficient for accountability purposes.

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

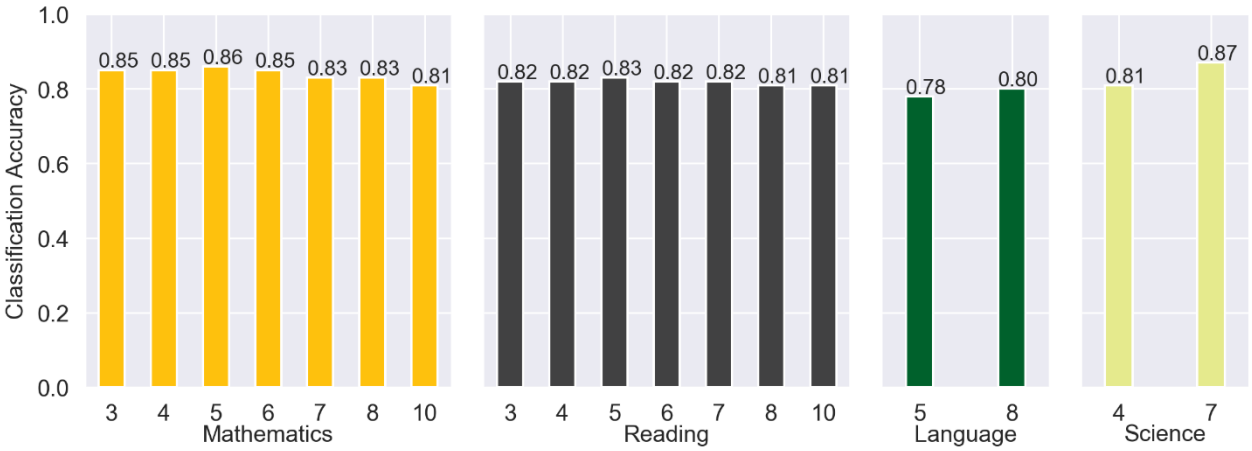
Assessment		*Proficient* Cut Scores by Grade								
		2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Mathematics										
KSA Spring		–	521	521	515	507	505	505	–	504
MAP Growth Mathematics	Fall	181	191	204	212	214	221	228	234	237
	Winter	190	200	212	218	220	225	232	236	239
	Spring	195	206	217	222	224	228	235	237	240
Reading										
KSA Spring		–	513	516	522	518	512	515	–	513
MAP Growth Reading	Fall	178	192	203	210	216	219	223	224	225
	Winter	185	197	206	213	217	220	224	225	226
	Spring	189	200	208	214	218	221	225	226	227
Editing & Mechanics										
KSA Spring		–	–	–	522	–	–	517	–	–
MAP Growth Language	Fall	–	–	–	205	–	–	218	–	–
	Winter	–	–	–	208	–	–	219	–	–
	Spring	–	–	–	210	–	–	220	–	–
Science										
KSA Spring		–	–	515	–	–	510	–	–	–
MAP Growth Science	Fall	–	–	205	–	–	220	–	–	–
	Winter	–	–	208	–	–	221	–	–	–
	Spring	–	–	209	–	–	222	–	–	–

[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.

Educators can use these cut scores to determine whether students are on track for proficiency (*Proficient* or higher) on the state assessments. For example, the *Proficient* cut score on the grade 3 KSA mathematics test is 521. A grade 3 student with a MAP Growth mathematics RIT score of 191 in the fall is likely to meet proficiency on the KSA mathematics test in the spring, whereas a grade 3 student with a RIT score lower than 191 in the fall is in jeopardy of not meeting proficiency.

As further evidence that MAP Growth scores can be used to predict students' proficiency on the state tests, NWEA calculated classification accuracy statistics that show how well the RIT scores correctly classified, or predicted, students as proficient for accountability purposes on the KSA tests.[2] For example, the grade 3 MAP Growth mathematics *Proficient* cut score has a 0.85 accuracy rate, meaning it accurately predicted student achievement on the state test for 85% of the sample. A high statistic indicates high accuracy. Overall, MAP Growth scores have a high accuracy rate of identifying student proficiency on the KSA tests, as shown in Figure E.2.

Figure E.2. Accuracy of MAP Growth Classifications by Grade



Please note that the purpose of this report is to explain NWEA's linking study methodology. It is not meant as the main reference for determining a student's likely performance on the state summative assessments. The cut scores in this report are based on the default instructional weeks most encountered for each term (i.e., Weeks 4, 20, and 32 for fall, winter, and spring, respectively), whereas instructional weeks often vary by district. The cut scores in this report may therefore differ from the results in the NWEA reporting system that reflect the specific instructional weeks set by partners. Partners should therefore reference their MAP Growth score reports instead.

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

1. Introduction

1.1. Purpose of the Study

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

This report presents results from a linking study conducted by NWEA to statistically connect Rasch Unit (RIT) scores from the MAP Growth assessments with scores from the Kentucky Summative Assessment (KSA) for the following tests: mathematics and reading in grades 3–8 and 10, editing and mechanics in grades 5 and 8, and science in grades 4 and 7 taken during the Spring 2022 term. MAP Growth cut scores are also included for grade 2 and grade 9 so that educators can track students' progress toward proficiency (*Proficient* or higher) on the KSA test by grade 3 and grade 10, respectively. Specifically, this report presents the following results:

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

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

1.2. Assessment Overview

The KSA tests are Kentucky's state summative assessments aligned to the academic content standards. Based on their test scores, students are placed into one of four performance levels: *Novice*, *Apprentice*, *Proficient*, and *Distinguished*. The *Proficient* cut score demarks the minimum level of achievement considered to be proficient for accountability purposes.

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

2. Methods

2.1. Data Collection

This linking study is based on data from the Spring 2022 administrations of the MAP Growth and KSA assessments. The Kentucky Department of Education (KDE) shared its student and score data from the target term with NWEA and gave permission to access its students' MAP Growth scores from the NWEA in-house database. Once state score information was available to NWEA, each student's state testing record was matched to their MAP Growth score based on the student's first and last names, date of birth, student ID, and other available identifying information. Only students who took both the MAP Growth and KSA assessments in Spring 2022 were included in the study sample.

2.2. Post-Stratification Weighting

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

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

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

2.3. Descriptive Statistics

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

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

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

2.4. MAP Growth Cut Scores

MAP Growth cut scores that predict student achievement on the KSA assessment are reported for grades 3–8 & 10, as well as for grade 2 and grade 9 so that educators can track students' progress toward proficiency on the KSA test by grade 3 and grade 10, respectively. Percentile ranks based on the 2025 NWEA norms are also provided. These are useful for understanding how students' scores compare with peers nationwide and the relative rigor of a state's performance level designations for its summative assessment.

The equipercentile linking method (Kolen & Brennan, 2004) was used to identify the spring MAP Growth RIT scores for grades 3–8 & 10 that correspond to the spring KSA performance level cut scores. The equipercentile linking procedure matches scores on the two scales that have the same percentile rank (i.e., the proportion of tests at or below each score). For example, let x represent a score on Test X (e.g., KSA). 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 KSA tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the KSA tests, and G^{-1} is the inverse of the percentile rank function for MAP Growth that indicates the score on MAP Growth corresponding to a given percentile. Polynomial loglinear pre-smoothing was applied to reduce irregularities of the score distributions and equipercentile linking curve.

The MAP Growth conditional growth norms provide students' expected score gains across terms, such as growth from fall to spring within the same grade or from spring of a lower grade to spring of the adjacent higher grade. This information was used to calculate the fall and winter cut scores for grades 3–8 & 10. The equation below was used to determine the previous term's MAP Growth score needed to reach the spring cut score, considering the expected growth associated with the previous RIT score:

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

where:

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

Students do not take the KSA assessment in grades 2 and 9. Therefore, the most recent MAP Growth conditional growth norms were also used to estimate the fall, winter, and spring cuts in grades 2 and 9 that are needed to meet KSA proficiency (*Proficient* or higher) in grades 3 and 10, respectively. For example, to derive the grade 2 spring cut scores, the growth score from spring of grade 2 to spring of grade 3 was used. The estimations of fall and winter cuts followed the same process for grades 3–8 and 10. For example, the projected growth from fall to spring in grade 2 was used to calculate the fall cuts for grade 2.

2.5. Classification Accuracy

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

Table 2.1. Description of Classification Accuracy Summary Statistics

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

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

2.6. Proficiency Projections

Given that all test scores contain measurement errors, reaching the *Proficient* RIT cut does not guarantee that the student is proficient at the state test. Instead, it can be claimed that a student meeting the RIT cut score has a 50% chance of reaching proficiency (*Proficient* 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 grades 2 and grade 9 cut scores), the MAP Growth conditional growth norms data were also used to calculate the probability of reaching proficiency on the KSA test in the spring based on a student’s RIT scores from fall and winter:

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

where:

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

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

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

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 KSA assessments in Spring 2022 for the target subjects were included in the sample. Data were provided by the KDE from 92 districts and 647 schools in Kentucky. Table 3.1 presents the distributions of students by race, sex, and performance level in the original unweighted study sample. Table 3.2 presents the distributions of the target population of students who took the KSA tests. Since the original study sample is different from the target KSA population, post-stratification weights were applied to the study sample to improve its representativeness. Table 3.3 presents the demographic distributions of the sample after weighting, which are almost identical to the KSA student population distributions. The analyses in this study were conducted using the weighted sample.

Table 3.1. Linking Study Sample Demographics (Unweighted)

Demographic Subgroup		% Students by Grade						
		3	4	5	6	7	8	10
KSA Mathematics to MAP Growth Mathematics								
	Total N	25,732	23,696	25,892	25,686	26,733	26,602	5,147
Race	Asian, NHPI	2.7	2.8	2.4	2.4	2.2	2.1	1.6
	Black	14.4	14.0	14.9	14.8	14.9	15.1	12.7
	Hispanic	9.5	9.6	10.2	10.1	9.6	10.3	7.1
	Other	5.7	5.5	5.3	5.1	5.0	4.7	4.0
	White	67.6	68.1	67.1	67.6	68.3	67.9	74.5
Sex	Female	48.5	48.3	48.6	48.6	48.9	48.9	48.4
	Male	51.5	51.7	51.4	51.4	51.1	51.1	51.6
Performance Level	*Novice*	32.8	33.2	31.8	34.1	33.9	38.2	36.1
	Apprentice	29.2	27.5	30.7	28.9	28.2	25.7	31.6
	Proficient	27.4	29.4	27.7	27.2	28.3	26.5	25.1
	Distinguished	10.6	9.9	9.9	9.8	9.5	9.6	7.3
KSA Reading to MAP Growth Reading								
	Total N	25,850	23,785	26,023	25,622	26,627	26,486	5,817
Race	Asian, NHPI	2.7	2.7	2.4	2.4	2.2	2.1	1.5
	Black	14.4	14.0	14.9	14.8	14.8	14.9	11.2
	Hispanic	9.5	9.6	10.2	9.9	9.4	10.1	6.0
	Other	5.8	5.6	5.4	5.2	5.0	4.7	3.6
	White	67.7	68.1	67.1	67.7	68.5	68.1	77.7
Sex	Female	48.4	48.3	48.5	48.6	48.9	49.0	47.6
	Male	51.6	51.7	51.5	51.4	51.1	51.0	52.4
Performance Level	*Novice*	28.2	30.2	28.6	27.9	32.7	31.5	30.0
	Apprentice	27.0	24.6	27.9	29.1	24.0	24.7	26.5
	Proficient	27.0	28.6	27.4	26.2	27.5	28.4	28.5
	Distinguished	17.8	16.5	16.2	16.8	15.8	15.4	14.9

Demographic Subgroup		% Students by Grade						
		3	4	5	6	7	8	10
KSA Editing & Mechanics to MAP Growth Language								
	Total N	–	–	6,243	–	–	5,961	–
Race	Asian, NHPI	–	–	1.7	–	–	1.5	–
	Black	–	–	8.0	–	–	4.9	–
	Hispanic	–	–	8.2	–	–	7.1	–
	Other	–	–	4.2	–	–	4.1	–
	White	–	–	77.9	–	–	82.4	–
Sex	Female	–	–	47.5	–	–	47.4	–
	Male	–	–	52.5	–	–	52.6	–
Performance Level	*Novice*	–	–	23.2	–	–	22.6	–
	Apprentice	–	–	29.8	–	–	29.7	–
	Proficient	–	–	26.8	–	–	31.5	–
	Distinguished	–	–	20.1	–	–	16.2	–
KSA Science to MAP Growth Science								
	Total N	–	5,349	–	–	6,101	–	–
Race	Asian, NH/PI	–	0.7	–	–	1.0	–	–
	Black	–	2.7	–	–	7.8	–	–
	Hispanic	–	4.6	–	–	5.7	–	–
	Other	–	3.6	–	–	4.7	–	–
	White	–	88.5	–	–	80.9	–	–
Sex	Female	–	48.3	–	–	49.4	–	–
	Male	–	51.7	–	–	50.6	–	–
Performance Level	*Novice*	–	14.2	–	–	36.5	–	–
	Apprentice	–	54.8	–	–	42.9	–	–
	Proficient	–	25.3	–	–	18.8	–	–
	Distinguished	–	5.7	–	–	1.8	–	–

Note. Asian, NHPI = Asian and Native Hawaiian and Other Pacific Islander. The race categories reflect the KSA performance reports from each testing term.

Table 3.2. Spring 2022 KSA Student Population Demographics

Demographic Subgroup		% Students by Grade						
		3	4	5	6	7	8	10
Mathematics								
	Total N	45,583	42,129	45,817	46,169	48,268	49,314	45,814
Race	Asian, NHPI	2.4	2.3	2.1	2.1	1.9	1.9	2.2
	Black	10.8	10.2	11.0	11.0	11.0	11.2	10.0
	Hispanic	8.3	8.3	8.7	8.7	8.5	8.7	8.1
	Other	5.5	5.4	5.3	5.2	5.0	4.7	4.2
	White	73.0	73.7	72.9	73.1	73.6	73.5	75.6

Demographic Subgroup		% Students by Grade						
		3	4	5	6	7	8	10
Sex	Female	48.7	48.1	48.6	48.3	48.8	48.9	48.8
	Male	51.3	51.9	51.4	51.7	51.2	51.1	51.2
Performance Level	*Novice*	32.0	32.0	31.0	32.0	33.0	37.0	32.0
	Apprentice	30.0	28.0	31.0	30.0	29.0	26.0	31.0
	Proficient	28.0	29.0	28.0	28.0	29.0	27.0	28.0
	Distinguished	11.0	10.0	10.0	10.0	9.0	10.0	10.0
Reading								
	Total N	45,522	42,086	45,773	46,071	48,171	49,200	45,809
Race	Asian, NHPI	2.3	2.3	2.1	2.1	1.9	1.9	2.1
	Black	10.8	10.3	11.0	11.0	11.0	11.2	10.0
	Hispanic	8.3	8.2	8.7	8.5	8.4	8.6	7.9
	Other	5.5	5.4	5.3	5.2	5.1	4.7	4.2
	White	73.1	73.8	72.9	73.2	73.7	73.7	75.7
Sex	Female	48.7	48.1	48.6	48.3	48.8	48.8	48.8
	Male	51.3	51.9	51.4	51.7	51.2	51.2	51.2
Performance Level	*Novice*	28.0	29.0	27.0	26.0	32.0	31.0	29.0
	Apprentice	27.0	25.0	28.0	29.0	24.0	25.0	26.0
	Proficient	27.0	29.0	28.0	27.0	28.0	29.0	29.0
	Distinguished	18.0	17.0	17.0	17.0	16.0	15.0	16.0
Editing & Mechanics								
	Total N	–	–	42,113	–	–	48,207	–
Race	Asian, NHPI	–	–	2.3	–	–	1.9	–
	Black	–	–	10.3	–	–	10.9	–
	Hispanic	–	–	8.2	–	–	8.5	–
	Other	–	–	5.4	–	–	5.0	–
	White	–	–	73.7	–	–	73.6	–
Sex	Female	–	–	48.1	–	–	48.8	–
	Male	–	–	51.9	–	–	51.2	–
Performance Level	*Novice*	–	–	16.0	–	–	35.0	–
	Apprentice	–	–	55.0	–	–	42.0	–
	Proficient	–	–	23.0	–	–	20.0	–
	Distinguished	–	–	6.0	–	–	2.0	–
Science								
	Total N	–	45,747	–	–	49,107	–	–
Race	Asian, NHPI	–	2.1	–	–	1.9	–	–
	Black	–	11.0	–	–	11.1	–	–
	Hispanic	–	8.7	–	–	8.6	–	–
	Other	–	5.3	–	–	4.7	–	–
	White	–	72.9	–	–	73.7	–	–

Demographic Subgroup		% Students by Grade						
		3	4	5	6	7	8	10
Sex	Female	–	48.6	–	–	48.9	–	–
	Male	–	51.4	–	–	51.1	–	–
Performance Level	*Novice*	–	23.0	–	–	25.0	–	–
	Apprentice	–	30.0	–	–	30.0	–	–
	Proficient	–	27.0	–	–	31.0	–	–
	Distinguished	–	20.0	–	–	15.0	–	–

Note. Asian, NHPI = Asian and Native Hawaiian or Other Pacific Islander. The race categories reflect the KSA performance reports from each testing term.

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		% Students by Grade						
		3	4	5	6	7	8	10
KSA Mathematics to MAP Growth Mathematics								
	Total N	25,989	23,459	25,892	25,686	26,733	26,602	5,198
Race	Asian, NHPI	2.4	2.3	2.1	2.1	1.9	1.9	2.2
	Black	10.8	10.2	11.0	11.0	11.0	11.2	10.0
	Hispanic	8.3	8.3	8.7	8.7	8.5	8.7	8.1
	Other	5.5	5.4	5.3	5.2	5.0	4.7	4.2
	White	73.0	73.7	72.9	73.1	73.6	73.5	75.6
Sex	Female	48.7	48.1	48.6	48.3	48.8	48.9	48.9
	Male	51.3	51.9	51.4	51.7	51.2	51.1	51.1
Performance Level	*Novice*	31.7	32.3	31.0	32.0	33.0	37.0	31.7
	Apprentice	29.7	28.3	31.0	30.0	29.0	26.0	30.7
	Proficient	27.7	29.3	28.0	28.0	29.0	27.0	27.7
	Distinguished	10.9	10.1	10.0	10.0	9.0	10.0	9.9
KSA Reading to MAP Growth Reading								
	Total N	25,850	23,785	26,023	25,366	26,627	26,486	5,817
Race	Asian, NHPI	2.3	2.3	2.1	2.1	1.9	1.9	2.1
	Black	10.8	10.3	11.0	11.0	11.0	11.2	10.0
	Hispanic	8.3	8.2	8.7	8.5	8.4	8.6	7.9
	Other	5.5	5.4	5.3	5.2	5.1	4.7	4.2
	White	73.1	73.8	72.9	73.2	73.7	73.7	75.7
Sex	Female	48.7	48.1	48.6	48.3	48.8	48.8	48.8
	Male	51.3	51.9	51.4	51.7	51.2	51.2	51.2
Performance Level	*Novice*	28.0	29.0	27.0	26.3	32.0	31.0	29.0
	Apprentice	27.0	25.0	28.0	29.3	24.0	25.0	26.0
	Proficient	27.0	29.0	28.0	27.3	28.0	29.0	29.0
	Distinguished	18.0	17.0	17.0	17.2	16.0	15.0	16.0

Demographic Subgroup		% Students by Grade						
		3	4	5	6	7	8	10
KSA Editing & Mechanics to MAP Growth Language								
	Total N	–	–	6,243	–	–	6,021	–
Race	Asian, NHPI	–	–	2.1	–	–	1.9	–
	Black	–	–	11.0	–	–	11.1	–
	Hispanic	–	–	8.7	–	–	8.6	–
	Other	–	–	5.3	–	–	4.7	–
	White	–	–	72.9	–	–	73.7	–
Sex	Female	–	–	48.6	–	–	48.9	–
	Male	–	–	51.4	–	–	51.1	–
Performance Level	*Novice*	–	–	23.0	–	–	24.8	–
	Apprentice	–	–	30.0	–	–	29.7	–
	Proficient	–	–	27.0	–	–	30.7	–
	Distinguished	–	–	20.0	–	–	14.9	–
KSA Science to MAP Growth Science								
	Total N	–	5,349	–	–	6,040	–	–
Race	Asian, NHPI	–	2.3	–	–	1.9	–	–
	Black	–	10.3	–	–	10.9	–	–
	Hispanic	–	8.2	–	–	8.5	–	–
	Other	–	5.4	–	–	5.0	–	–
	White	–	73.7	–	–	73.6	–	–
Sex	Female	–	48.1	–	–	48.8	–	–
	Male	–	51.9	–	–	51.2	–	–
Performance Level	*Novice*	–	16.0	–	–	35.4	–	–
	Apprentice	–	55.0	–	–	42.4	–	–
	Proficient	–	23.0	–	–	20.2	–	–
	Distinguished	–	6.0	–	–	2.0	–	–

Note. Asian, NHPI = Asian and Native Hawaiian or Other Pacific Islander. The race categories reflect the KSA performance reports from each testing term.

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and KSA test scores from Spring 2022, including the correlation coefficients (*r*) between them. The correlations between the scores range from 0.71 to 0.81 for mathematics, 0.73 to 0.78 for reading, 0.69 or 0.74 for language, and 0.62 or 0.72 for science. These values mostly indicate a high positive correlation among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the KSA assessments, except for KSA editing and mechanics grade 5 and KSA science grade 4.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	*r*	KSA				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
KSA Mathematics to MAP Growth Mathematics										
3	25,989	0.80	515.9	20.3	400	600	197.9	14.7	122	273
4	23,459	0.81	516.4	19.9	400	600	206.6	15.6	121	275
5	25,892	0.81	510.3	19.5	400	600	212.7	16.4	137	284
6	25,686	0.79	503.2	16.7	400	599	216.3	16.3	152	290
7	26,733	0.76	502.5	14.1	400	600	221.3	17.4	154	304
8	26,602	0.77	502.0	16.4	400	600	226.1	18.5	150	327
10	5,198	0.71	500.5	14.8	400	573	230.5	19.9	159	306
KSA Reading to MAP Growth Reading										
3	25,850	0.73	511.0	17.3	400	600	195.7	17.2	140	242
4	23,785	0.75	513.7	17.3	443	598	204.2	16.4	143	276
5	26,023	0.77	518.9	18.5	440	600	210.1	15.7	142	262
6	25,366	0.78	514.5	16.7	400	600	213.3	15.6	155	262
7	26,627	0.77	509.3	16.1	400	600	217.1	15.6	156	272
8	26,486	0.76	512.0	15.1	440	580	220.7	15.7	152	278
10	5,817	0.73	510.8	16.8	444	600	222.2	17.4	153	272
KSA Editing & Mechanics to MAP Growth Language										
5	6,243	0.69	520.1	16.4	471	600	206.7	14.8	145	257
8	6,021	0.74	515.5	17.4	455	600	216.3	14.7	148	279
KSA Science to MAP Growth Science										
4	5,349	0.62	507.9	13.2	459	559	202.0	11.8	157	237
7	6,040	0.72	498.0	14.0	446	562	211.0	12.9	161	254

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

3.3. MAP Growth Cut Scores

Table 3.5 through Table 3.8 present the KSA scale score ranges and the corresponding MAP Growth RIT cut scores and percentile ranges by content area and grade. Bold numbers highlight the cut scores considered to be proficient for accountability purposes. These tables can be used to predict a student's performance level on the KSA spring assessments when MAP Growth is taken in the fall, winter, or spring. For example, a grade 3 student who obtained a MAP Growth mathematics RIT score of 191 in the fall is likely to achieve *Proficient* performance on the KSA mathematics test. The same is true for a grade 3 student who obtained a MAP Growth mathematics RIT score of 200 in the winter. The winter cut score is higher than the fall cut score because of expected growth during the school year as students receive more instruction.

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

students' score reports since they reflect the specific instructional weeks set by partners.

Table 3.5. MAP Growth Cut Scores—Mathematics

KSA Mathematics				
Grade	***Novice***	***Apprentice***	***Proficient***	***Distinguished***
3	400–504	505–520	**521**–541	542–600
4	400–506	507–520	**521**–542	543–600
5	400–498	499–514	**515**–536	537–600
6	400–494	495–506	**507**–525	526–600
7	400–495	496–504	**505**–521	522–600
8	400–494	495–504	**505**–523	524–600
10	400–493	494–503	**504**–520	521–600

MAP Growth Mathematics								
Grade	***Novice***		***Apprentice***		***Proficient***		***Distinguished***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–163	1–27	164–180	28–69	**181**–198	70–94	199–350	95–99
3	100–177	1–34	178–190	35–66	**191**–205	67–91	206–350	92–99
4	100–191	1–37	192–203	38–66	**204**–218	67–91	219–350	92–99
5	100–195	1–25	196–211	26–63	**212**–226	64–89	227–350	90–99
6	100–201	1–29	202–213	30–58	**214**–230	59–89	231–350	90–99
7	100–208	1–31	209–220	32–58	**221**–240	59–91	241–350	92–99
8	100–215	1–36	216–227	37–62	**228**–247	63–91	248–350	92–99
9	100–218	1–36	219–233	37–69	**234**–256	70–96	257–350	97–99
10	100–221	1–39	222–236	40–70	**237**–258	71–95	259–350	96–99
Winter								
2	100–172	1–29	173–189	30–70	**190**–206	71–94	207–350	95–99
3	100–185	1–33	186–199	34–66	**200**–214	67–90	215–350	91–99
4	100–198	1–36	199–211	37–66	**212**–226	67–90	227–350	91–99
5	100–201	1–28	202–217	29–63	**218**–232	64–88	233–350	89–99
6	100–206	1–29	207–219	30–58	**220**–237	59–89	238–350	90–99
7	100–212	1–32	213–224	33–58	**225**–245	59–90	246–350	91–99
8	100–219	1–37	220–231	38–61	**232**–252	62–91	253–350	92–99
9	100–221	1–38	222–235	39–67	**236**–257	68–94	258–350	95–99
10	100–223	1–38	224–238	39–67	**239**–259	68–93	260–350	94–99
Spring								
2	100–179	1–31	180–194	32–67	**195**–210	68–92	211–350	93–99
3	100–192	1–35	193–205	36–65	**206**–219	66–88	220–350	89–99
4	100–204	1–38	205–216	39–64	**217**–231	65–88	232–350	89–99
5	100–205	1–28	206–221	29–62	**222**–236	63–86	237–350	87–99
6	100–211	1–32	212–223	33–57	**224**–241	58–87	242–350	88–99
7	100–215	1–33	216–227	34–58	**228**–247	59–88	248–350	89–99
8	100–222	1–38	223–234	39–61	**235**–254	62–89	255–350	90–99
9	100–223	1–40	224–236	41–64	**237**–258	65–91	259–350	92–99
10	100–226	1–41	227–239	42–64	**240**–260	65–90	261–350	91–99

Table 3.6. MAP Growth Cut Scores—Reading

KSA Reading								
Grade	***Novice***		***Apprentice***		***Proficient***		***Distinguished***	
3	400–499		500–512		**513**–527		528–600	
4	400–502		503–515		**516**–530		531–600	
5	400–506		507–521		**522**–537		538–600	
6	400–503		504–517		**518**–531		532–600	
7	400–500		501–511		**512**–525		526–600	
8	400–503		504–514		**515**–527		528–600	
10	400–499		500–512		**513**–527		528–600	
MAP Growth Reading								
Grade	***Novice***		***Apprentice***		***Proficient***		***Distinguished***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–159	1–27	160–177	28–67	**178**–194	68–92	195–350	93–99
3	100–176	1–33	177–191	34–65	**192**–205	66–87	206–350	88–99
4	100–188	1–34	189–202	35–64	**203**–216	65–87	217–350	88–99
5	100–195	1–32	196–209	33–63	**210**–222	64–86	223–350	87–99
6	100–200	1–31	201–215	32–65	**216**–226	66–85	227–350	86–99
7	100–207	1–39	208–218	40–64	**219**–229	65–84	230–350	85–99
8	100–210	1–38	211–222	39–66	**223**–233	67–85	234–350	86–99
9	100–212	1–42	213–223	43–66	**224**–235	67–85	236–350	86–99
10	100–213	1–41	214–224	42–65	**225**–237	66–86	238–350	87–99
Winter								
2	100–166	1–28	167–184	29–68	**185**–200	69–91	201–350	92–99
3	100–181	1–32	182–196	33–64	**197**–209	65–86	210–350	87–99
4	100–192	1–35	193–205	36–63	**206**–218	64–85	219–350	86–99
5	100–198	1–32	199–212	33–64	**213**–223	65–84	224–350	85–99
6	100–202	1–31	203–216	32–64	**217**–227	65–84	228–350	85–99
7	100–208	1–38	209–219	39–63	**220**–230	64–84	231–350	85–99
8	100–211	1–38	212–223	39–65	**224**–234	66–85	235–350	86–99
9	100–213	1–43	214–224	44–67	**225**–236	68–86	237–350	87–99
10	100–214	1–42	215–225	43–66	**226**–238	67–87	239–350	88–99
Spring								
2	100–172	1–30	173–188	31–65	**189**–202	66–88	203–350	89–99
3	100–186	1–34	187–199	35–62	**200**–211	63–83	212–350	84–99
4	100–195	1–36	196–207	37–62	**208**–219	63–83	220–350	84–99
5	100–201	1–35	202–213	36–62	**214**–224	63–82	225–350	83–99
6	100–204	1–33	205–217	34–63	**218**–228	64–84	229–350	85–99
7	100–210	1–40	211–220	41–63	**221**–231	64–83	232–350	84–99
8	100–213	1–40	214–224	41–65	**225**–235	66–85	236–350	86–99
9	100–214	1–44	215–225	45–68	**226**–237	69–86	238–350	87–99
10	100–215	1–44	216–226	45–67	**227**–239	68–87	240–350	88–99

Table 3.7. MAP Growth Cut Scores—Language, Editing & Mechanics

KSA Editing & Mechanics								
Grade	***Novice***		***Apprentice***		***Proficient***		***Distinguished***	
5	400–507		508–521		**522**–533		534–600	
8	400–503		504–516		**517**–532		533–600	
MAP Growth Language								
Grade	***Novice***		***Apprentice***		***Proficient***		***Distinguished***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
5	100–190	1–24	191–204	25–57	**205**–215	58–80	216–350	81–99
8	100–203	1–26	204–217	27–60	**218**–228	61–83	229–350	84–99
Winter								
5	100–194	1–26	195–207	27–57	**208**–217	58–79	218–350	80–99
8	100–205	1–27	206–218	28–58	**219**–229	59–81	230–350	82–99
Spring								
5	100–197	1–27	198–209	28–57	**210**–218	58–77	219–350	78–99
8	100–207	1–29	208–219	30–58	**220**–230	59–81	231–350	82–99

Table 3.8. MAP Growth Cut Scores—Science

KSA Science								
Grade	***Novice***		***Apprentice***		***Proficient***		***Distinguished***	
4	400–494		495–514		**515**–530		531–600	
7	400–491		492–509		**510**–528		529–600	
MAP Growth Science								
Grade	***Novice***		***Apprentice***		***Proficient***		***Distinguished***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
4	100–183	1–19	184–204	20–77	**205**–217	78–95	218–350	96–99
7	100–202	1–37	203–219	38–82	**220**–232	83–96	233–350	97–99
Winter								
4	100–186	1–19	187–207	20–77	**208**–218	78–94	219–350	95–99
7	100–203	1–36	204–220	37–80	**221**–233	81–95	234–350	96–99
Spring								
4	100–190	1–23	191–208	24–74	**209**–219	75–92	220–350	93–99
7	100–205	1–38	206–221	39–79	**222**–234	80–95	235–350	96–99

3.4. Classification Accuracy

Table 3.9 presents the classification accuracy summary statistics, including the overall classification accuracy rates. These results indicate how well MAP Growth spring RIT scores predict proficiency (*Proficient* or higher) on the KSA tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.81 to 0.86 for mathematics, 0.81 to 0.83 for reading, 0.78 and 0.80 for language, and 0.81 and 0.87 for science. These values suggest that most of the RIT cut scores are good at classifying students as proficient or not proficient on the KSA assessments.

Although the results show that MAP Growth scores can be used to predict student proficiency (*Proficient* or higher) with relatively high accuracy on the KSA tests, there is a notable limitation to how these results should be used and interpreted. The KSA 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 3.9. Classification Accuracy Results

Grade	N	Cut Score		Class. Accuracy	Rate		Sensitivity	Specificity	Precision	AUC
		MAP Growth	KSA		FP	FN				
Mathematics										
3	25,989	204	521	0.85	0.12	0.19	0.81	0.88	0.64	0.81
4	23,459	212	521	0.85	0.13	0.17	0.83	0.87	0.81	0.80
5	25,892	219	515	0.86	0.11	0.18	0.82	0.89	0.80	0.82
6	25,686	221	507	0.85	0.14	0.17	0.83	0.86	0.82	0.78
7	26,733	226	505	0.83	0.16	0.19	0.81	0.84	0.78	0.76
8	26,602	231	505	0.83	0.15	0.19	0.81	0.85	0.76	0.76
10	5,198	236	504	0.81	0.18	0.21	0.79	0.82	0.73	0.73
Reading										
3	25,850	200	513	0.82	0.18	0.19	0.81	0.82	0.76	0.79
4	23,785	208	516	0.82	0.18	0.18	0.82	0.82	0.79	0.80
5	26,023	214	522	0.83	0.18	0.17	0.83	0.82	0.80	0.79
6	25,366	218	518	0.82	0.16	0.21	0.79	0.84	0.79	0.80
7	26,627	221	512	0.82	0.18	0.19	0.81	0.82	0.80	0.78
8	26,486	225	515	0.81	0.17	0.21	0.79	0.83	0.78	0.78
10	5,817	227	513	0.81	0.16	0.21	0.79	0.84	0.80	0.80
Language										
5	6,243	210	522	0.78	0.21	0.24	0.76	0.79	0.76	0.85
8	6,021	220	517	0.80	0.17	0.23	0.77	0.83	0.79	0.79
Science										
4	5,349	209	515	0.81	0.14	0.31	0.69	0.86	0.66	0.85
7	6,040	222	510	0.87	0.08	0.32	0.68	0.92	0.72	0.72

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

3.5. Proficiency Projections

Table 3.10 to Table 3.13 present the estimated probability of achieving proficiency performance (*Proficient* or higher) on the KSA tests based on RIT scores from fall, winter, or spring. Due to measurement error in all test scores, the *Proficient* MAP Growth cuts do not guarantee that a student will reach proficiency on the KSA. Instead, they indicate a 50% chance that a student will reach a particular performance level. Therefore, these projections further elucidate the *Proficient* cut scores by providing the likelihood of reaching proficiency on the KSA in the spring at a given percentile throughout the year. For example, the spring grade 3 *Proficient* RIT cut score for mathematics is 206, which indicates a 50% chance of achieving proficiency in the spring. An educator can use the table to estimate that a grade 3 student who obtained a MAP Growth mathematics score of 192 in the fall has a 55% probability of reaching *Proficient* or higher on the KSA test in the spring.

Table 3.10. Proficiency Projections Based on RIT Scores—Mathematics

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
2	5	195	147	No	<0.01	155	No	<0.01	161	No	<0.01
	10	195	153	No	<0.01	161	No	<0.01	167	No	<0.01
	15	195	157	No	<0.01	165	No	<0.01	171	No	<0.01
	20	195	160	No	0.01	168	No	0.01	174	No	<0.01
	25	195	162	No	0.02	171	No	0.01	177	No	<0.01
	30	195	165	No	0.03	173	No	0.02	179	No	<0.01
	35	195	167	No	0.06	175	No	0.04	181	No	<0.01
	40	195	169	No	0.09	177	No	0.07	183	No	<0.01
	45	195	171	No	0.14	179	No	0.09	185	No	<0.01
	50	195	173	No	0.2	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	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	45	206	182	No	0.13	191	No	0.13	197	No	0.01
	50	206	184	No	0.19	193	No	0.17	199	No	0.02
	55	206	186	No	0.26	195	No	0.24	201	No	0.08
	60	206	188	No	0.35	197	No	0.34	203	No	0.2
	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
4	5	217	171	No	<0.01	176	No	<0.01	180	No	<0.01
	10	217	177	No	<0.01	183	No	<0.01	187	No	<0.01
	15	217	181	No	<0.01	187	No	<0.01	191	No	<0.01
	20	217	184	No	0.01	190	No	<0.01	195	No	<0.01
	25	217	186	No	0.01	193	No	0.01	198	No	<0.01
	30	217	189	No	0.03	196	No	0.02	201	No	<0.01
	35	217	191	No	0.05	198	No	0.03	203	No	<0.01
	40	217	193	No	0.09	200	No	0.06	206	No	<0.01
	45	217	195	No	0.13	202	No	0.1	208	No	0.01
	50	217	197	No	0.19	204	No	0.16	210	No	0.02
	55	217	199	No	0.27	207	No	0.28	212	No	0.08
	60	217	201	No	0.35	209	No	0.33	215	No	0.28
	65	217	203	No	0.45	211	No	0.44	217	Yes	0.5
	70	217	205	Yes	0.55	213	Yes	0.56	220	Yes	0.8
	75	217	208	Yes	0.69	216	Yes	0.72	222	Yes	0.92
	80	217	210	Yes	0.77	219	Yes	0.84	225	Yes	0.99
	85	217	214	Yes	0.89	222	Yes	0.92	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	217	217	Yes	0.95	226	Yes	0.98	233	Yes	>0.99
	95	217	223	Yes	0.99	232	Yes	>0.99	240	Yes	>0.99
5	5	222	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	222	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	222	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	222	193	No	0.01	197	No	<0.01	200	No	<0.01
	25	222	195	No	0.01	200	No	0.01	204	No	<0.01
	30	222	198	No	0.04	203	No	0.02	206	No	<0.01
	35	222	200	No	0.06	205	No	0.03	209	No	<0.01
	40	222	202	No	0.1	207	No	0.06	211	No	<0.01
	45	222	204	No	0.15	210	No	0.13	214	No	0.01
	50	222	206	No	0.22	212	No	0.2	216	No	0.04
	55	222	208	No	0.3	214	No	0.28	218	No	0.13
	60	222	210	No	0.4	216	No	0.39	221	No	0.39
	65	222	212	Yes	0.5	219	Yes	0.56	223	Yes	0.61
	70	222	215	Yes	0.65	221	Yes	0.67	226	Yes	0.87
	75	222	217	Yes	0.74	224	Yes	0.8	228	Yes	0.96
	80	222	220	Yes	0.85	226	Yes	0.87	232	Yes	>0.99
	85	222	223	Yes	0.92	230	Yes	0.96	235	Yes	>0.99
	90	222	227	Yes	0.97	234	Yes	0.99	240	Yes	>0.99
	95	222	233	Yes	>0.99	240	Yes	>0.99	246	Yes	>0.99
6	5	224	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	224	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	224	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	224	197	No	0.02	201	No	0.01	205	No	<0.01
	25	224	199	No	0.03	204	No	0.02	208	No	<0.01
	30	224	202	No	0.07	207	No	0.05	211	No	<0.01
	35	224	204	No	0.11	209	No	0.07	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	224	206	No	0.16	212	No	0.14	216	No	0.01
	45	224	208	No	0.23	214	No	0.21	218	No	0.04
	50	224	210	No	0.31	216	No	0.29	220	No	0.13
	55	224	212	No	0.4	218	No	0.39	223	No	0.39
	60	224	214	Yes	0.5	220	Yes	0.5	225	Yes	0.61
	65	224	216	Yes	0.6	223	Yes	0.66	227	Yes	0.8
	70	224	219	Yes	0.73	225	Yes	0.75	230	Yes	0.96
	75	224	221	Yes	0.84	228	Yes	0.86	233	Yes	0.99
	80	224	224	Yes	0.91	231	Yes	0.93	236	Yes	>0.99
	85	224	227	Yes	0.96	234	Yes	0.97	239	Yes	>0.99
	90	224	231	Yes	0.99	238	Yes	0.99	244	Yes	>0.99
	95	224	237	Yes	>0.99	245	Yes	>0.99	251	Yes	>0.99
7	5	228	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	228	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	228	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	228	203	No	0.01	206	No	0.01	208	No	<0.01
	25	228	206	No	0.03	209	No	0.02	211	No	<0.01
	30	228	208	No	0.06	211	No	0.03	214	No	<0.01
	35	228	211	No	0.11	214	No	0.07	216	No	<0.01
	40	228	213	No	0.17	216	No	0.12	219	No	0.01
	45	228	215	No	0.23	219	No	0.22	221	No	0.02
	50	228	217	No	0.31	221	No	0.3	224	No	0.13
	55	228	219	No	0.4	223	No	0.4	226	No	0.28
	60	228	222	Yes	0.55	226	Yes	0.55	229	Yes	0.61
	65	228	224	Yes	0.64	228	Yes	0.65	231	Yes	0.8
	70	228	226	Yes	0.73	231	Yes	0.74	234	Yes	0.96
	75	228	229	Yes	0.83	233	Yes	0.82	237	Yes	0.99
	80	228	232	Yes	0.91	236	Yes	0.9	240	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.
	85	228	235	Yes	0.96	240	Yes	0.97	244	Yes	>0.99
	90	228	239	Yes	0.99	245	Yes	0.99	249	Yes	>0.99
	95	228	246	Yes	>0.99	251	Yes	>0.99	256	Yes	>0.99
8	5	235	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	235	199	No	<0.01	201	No	<0.01	203	No	<0.01
	15	235	203	No	<0.01	206	No	<0.01	208	No	<0.01
	20	235	207	No	0.01	210	No	<0.01	212	No	<0.01
	25	235	210	No	0.02	213	No	0.01	215	No	<0.01
	30	235	212	No	0.03	216	No	0.02	218	No	<0.01
	35	235	215	No	0.07	219	No	0.05	221	No	<0.01
	40	235	217	No	0.1	221	No	0.08	224	No	<0.01
	45	235	220	No	0.18	224	No	0.16	226	No	0.01
	50	235	222	No	0.25	226	No	0.23	229	No	0.04
	55	235	224	No	0.32	228	No	0.31	231	No	0.13
	60	235	227	No	0.45	231	No	0.45	234	No	0.39
	65	235	229	Yes	0.55	233	Yes	0.55	237	Yes	0.72
	70	235	232	Yes	0.68	236	Yes	0.69	239	Yes	0.87
	75	235	234	Yes	0.75	239	Yes	0.77	242	Yes	0.98
	80	235	237	Yes	0.85	242	Yes	0.87	246	Yes	>0.99
	85	235	241	Yes	0.93	246	Yes	0.95	250	Yes	>0.99
	90	235	246	Yes	0.98	251	Yes	0.99	255	Yes	>0.99
	95	235	252	Yes	>0.99	258	Yes	>0.99	262	Yes	>0.99
9	5	237	196	No	0.01	196	No	<0.01	194	No	<0.01
	10	237	202	No	0.03	203	No	0.01	202	No	<0.01
	15	237	207	No	0.05	207	No	0.02	207	No	<0.01
	20	237	210	No	0.07	211	No	0.03	211	No	<0.01
	25	237	213	No	0.11	214	No	0.05	215	No	<0.01
	30	237	216	No	0.14	217	No	0.08	218	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.
	35	237	218	No	0.17	220	No	0.11	221	No	<0.01
	40	237	220	No	0.2	222	No	0.14	223	No	<0.01
	45	237	223	No	0.25	225	No	0.2	226	No	<0.01
	50	237	225	No	0.29	227	No	0.25	229	No	0.01
	55	237	227	No	0.34	230	No	0.31	231	No	0.04
	60	237	229	No	0.37	232	No	0.37	234	No	0.2
	65	237	232	No	0.45	235	No	0.47	237	Yes	0.5
	70	237	234	Yes	0.5	237	Yes	0.53	240	Yes	0.8
	75	237	237	Yes	0.55	240	Yes	0.63	243	Yes	0.96
	80	237	240	Yes	0.63	243	Yes	0.72	247	Yes	>0.99
	85	237	243	Yes	0.71	247	Yes	0.82	251	Yes	>0.99
	90	237	248	Yes	0.81	252	Yes	0.91	256	Yes	>0.99
	95	237	254	Yes	0.9	259	Yes	0.97	263	Yes	>0.99
10	5	240	196	No	0.01	196	No	<0.01	195	No	<0.01
	10	240	203	No	0.03	204	No	0.01	203	No	<0.01
	15	240	208	No	0.05	208	No	0.02	208	No	<0.01
	20	240	211	No	0.08	212	No	0.03	213	No	<0.01
	25	240	214	No	0.1	216	No	0.05	216	No	<0.01
	30	240	217	No	0.14	219	No	0.08	220	No	<0.01
	35	240	220	No	0.18	222	No	0.12	223	No	<0.01
	40	240	222	No	0.2	224	No	0.16	226	No	<0.01
	45	240	224	No	0.24	227	No	0.2	229	No	<0.01
	50	240	227	No	0.3	229	No	0.24	231	No	0.01
	55	240	229	No	0.33	232	No	0.32	234	No	0.04
	60	240	232	No	0.4	235	No	0.38	237	No	0.2
	65	240	234	No	0.45	237	No	0.44	240	Yes	0.5
	70	240	237	Yes	0.5	240	Yes	0.53	243	Yes	0.8
	75	240	239	Yes	0.55	243	Yes	0.62	246	Yes	0.96

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.
	80	240	242	Yes	0.6	246	Yes	0.7	250	Yes	>0.99
	85	240	246	Yes	0.7	250	Yes	0.8	254	Yes	>0.99
	90	240	251	Yes	0.8	255	Yes	0.89	260	Yes	>0.99
	95	240	257	Yes	0.89	263	Yes	0.97	268	Yes	>0.99

Note. Prob. = Probability.

Table 3.11. Proficiency Projections Based on RIT Scores—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	189	142	No	<0.01	149	No	<0.01	153	No	<0.01
	10	189	148	No	<0.01	155	No	<0.01	159	No	<0.01
	15	189	152	No	0.01	159	No	<0.01	164	No	<0.01
	20	189	156	No	0.02	162	No	0.01	167	No	<0.01
	25	189	159	No	0.03	165	No	0.02	170	No	<0.01
	30	189	161	No	0.05	168	No	0.04	173	No	<0.01
	35	189	163	No	0.07	170	No	0.06	175	No	<0.01
	40	189	166	No	0.11	172	No	0.09	177	No	<0.01
	45	189	168	No	0.16	175	No	0.14	180	No	0.01
	50	189	170	No	0.22	177	No	0.2	182	No	0.02
	55	189	172	No	0.25	179	No	0.27	184	No	0.08
	60	189	174	No	0.33	181	No	0.32	186	No	0.2
	65	189	177	No	0.46	183	No	0.41	188	No	0.39
	70	189	179	Yes	0.5	186	Yes	0.55	191	Yes	0.72
	75	189	182	Yes	0.63	188	Yes	0.64	193	Yes	0.87
	80	189	184	Yes	0.71	191	Yes	0.73	196	Yes	0.98
	85	189	188	Yes	0.81	194	Yes	0.83	200	Yes	>0.99
	90	189	192	Yes	0.91	199	Yes	0.93	204	Yes	>0.99
	95	189	198	Yes	0.97	205	Yes	0.98	210	Yes	>0.99
3	5	200	155	No	<0.01	160	No	<0.01	164	No	<0.01
	10	200	161	No	<0.01	167	No	<0.01	171	No	<0.01
	15	200	166	No	0.01	171	No	<0.01	175	No	<0.01
	20	200	169	No	0.01	175	No	0.01	179	No	<0.01
	25	200	172	No	0.03	178	No	0.02	182	No	<0.01
	30	200	175	No	0.05	180	No	0.04	184	No	<0.01
	35	200	178	No	0.09	183	No	0.08	187	No	<0.01
	40	200	180	No	0.13	185	No	0.09	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	200	182	No	0.16	188	No	0.17	192	No	0.01
	50	200	185	No	0.25	190	No	0.24	194	No	0.04
	55	200	187	No	0.33	192	No	0.32	196	No	0.13
	60	200	189	No	0.41	194	No	0.36	198	No	0.28
	65	200	192	Yes	0.5	197	Yes	0.5	201	Yes	0.61
	70	200	194	Yes	0.59	199	Yes	0.59	203	Yes	0.8
	75	200	197	Yes	0.67	202	Yes	0.73	206	Yes	0.96
	80	200	200	Yes	0.78	205	Yes	0.8	209	Yes	0.99
	85	200	204	Yes	0.87	209	Yes	0.91	213	Yes	>0.99
	90	200	208	Yes	0.94	213	Yes	0.95	217	Yes	>0.99
	95	200	215	Yes	0.99	220	Yes	0.99	224	Yes	>0.99
4	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
	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	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	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	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	221	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	221	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	221	195	No	0.01	196	No	<0.01	197	No	<0.01
	20	221	198	No	0.01	200	No	0.01	201	No	<0.01
	25	221	201	No	0.03	202	No	0.02	203	No	<0.01
	30	221	204	No	0.06	205	No	0.04	206	No	<0.01
	35	221	206	No	0.08	207	No	0.07	208	No	<0.01
	40	221	208	No	0.12	210	No	0.14	211	No	<0.01
	45	221	210	No	0.18	212	No	0.16	213	No	0.01
	50	221	212	No	0.24	214	No	0.23	215	No	0.04
	55	221	214	No	0.28	216	No	0.31	217	No	0.13
	60	221	217	No	0.41	218	No	0.4	219	No	0.28
	65	221	219	Yes	0.5	220	Yes	0.5	221	Yes	0.5
	70	221	221	Yes	0.59	223	Yes	0.64	224	Yes	0.8
	75	221	224	Yes	0.72	225	Yes	0.73	226	Yes	0.92
	80	221	226	Yes	0.79	228	Yes	0.84	229	Yes	0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	85	221	230	Yes	0.9	231	Yes	0.91	232	Yes	>0.99
	90	221	234	Yes	0.96	235	Yes	0.97	237	Yes	>0.99
	95	221	240	Yes	0.99	241	Yes	0.99	243	Yes	>0.99
8	5	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
9	5	226	186	No	<0.01	187	No	<0.01	187	No	<0.01
	10	226	193	No	<0.01	194	No	<0.01	194	No	<0.01
	15	226	197	No	0.01	198	No	<0.01	198	No	<0.01
	20	226	201	No	0.01	201	No	0.01	202	No	<0.01
	25	226	204	No	0.03	205	No	0.02	205	No	<0.01
	30	226	207	No	0.04	207	No	0.04	208	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.
	35	226	209	No	0.06	210	No	0.06	210	No	<0.01
	40	226	212	No	0.11	212	No	0.08	213	No	<0.01
	45	226	214	No	0.15	214	No	0.12	215	No	<0.01
	50	226	216	No	0.21	217	No	0.2	217	No	0.01
	55	226	218	No	0.27	219	No	0.26	219	No	0.02
	60	226	221	No	0.38	221	No	0.34	222	No	0.13
	65	226	223	No	0.46	224	No	0.46	224	No	0.28
	70	226	226	Yes	0.58	226	Yes	0.54	227	Yes	0.61
	75	226	228	Yes	0.66	229	Yes	0.66	230	Yes	0.87
	80	226	231	Yes	0.76	232	Yes	0.77	233	Yes	0.98
	85	226	235	Yes	0.87	236	Yes	0.88	236	Yes	>0.99
	90	226	239	Yes	0.94	240	Yes	0.94	241	Yes	>0.99
	95	226	246	Yes	0.99	247	Yes	0.99	247	Yes	>0.99
10	5	227	188	No	<0.01	188	No	<0.01	188	No	<0.01
	10	227	195	No	<0.01	195	No	<0.01	195	No	<0.01
	15	227	199	No	0.01	199	No	0.01	200	No	<0.01
	20	227	203	No	0.02	203	No	0.02	203	No	<0.01
	25	227	206	No	0.04	206	No	0.03	206	No	<0.01
	30	227	208	No	0.05	209	No	0.05	209	No	<0.01
	35	227	211	No	0.09	211	No	0.06	211	No	<0.01
	40	227	213	No	0.12	214	No	0.11	214	No	<0.01
	45	227	215	No	0.17	216	No	0.16	216	No	<0.01
	50	227	218	No	0.25	218	No	0.21	218	No	0.01
	55	227	220	No	0.31	220	No	0.27	221	No	0.04
	60	227	222	No	0.39	223	No	0.38	223	No	0.13
	65	227	225	Yes	0.5	225	No	0.46	225	No	0.28
	70	227	227	Yes	0.58	228	Yes	0.58	228	Yes	0.61
	75	227	230	Yes	0.69	230	Yes	0.66	231	Yes	0.87

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.
	80	227	233	Yes	0.78	233	Yes	0.76	234	Yes	0.98
	85	227	236	Yes	0.86	237	Yes	0.87	237	Yes	>0.99
	90	227	241	Yes	0.94	241	Yes	0.94	242	Yes	>0.99
	95	227	247	Yes	0.98	248	Yes	0.99	248	Yes	>0.99

Note. Prob. = Probability.

Table 3.12. Proficiency Projections Based on RIT Scores—Language, Editing & Mechanics

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.
5	5	210	175	No	<0.01	179	No	<0.01	181	No	<0.01
	10	210	181	No	<0.01	185	No	<0.01	187	No	<0.01
	15	210	185	No	0.01	188	No	0.01	191	No	<0.01
	20	210	188	No	0.02	191	No	0.02	194	No	<0.01
	25	210	191	No	0.05	194	No	0.04	196	No	<0.01
	30	210	193	No	0.07	197	No	0.08	199	No	<0.01
	35	210	196	No	0.14	199	No	0.13	201	No	0.01
	40	210	198	No	0.21	201	No	0.2	203	No	0.02
	45	210	200	No	0.25	203	No	0.24	205	No	0.08
	50	210	202	No	0.34	205	No	0.34	207	No	0.2
	55	210	204	No	0.45	207	No	0.44	209	No	0.39
	60	210	206	Yes	0.55	209	Yes	0.56	211	Yes	0.61
	65	210	208	Yes	0.61	211	Yes	0.61	213	Yes	0.8
	70	210	210	Yes	0.7	213	Yes	0.71	215	Yes	0.92
	75	210	213	Yes	0.79	215	Yes	0.8	218	Yes	0.99
	80	210	215	Yes	0.86	218	Yes	0.89	220	Yes	>0.99
	85	210	219	Yes	0.95	221	Yes	0.95	223	Yes	>0.99
	90	210	222	Yes	0.97	225	Yes	0.99	227	Yes	>0.99
	95	210	228	Yes	>0.99	231	Yes	>0.99	233	Yes	>0.99
8	5	220	188	No	<0.01	189	No	<0.01	190	No	<0.01
	10	220	194	No	<0.01	195	No	<0.01	196	No	<0.01
	15	220	197	No	0.01	199	No	0.01	200	No	<0.01
	20	220	201	No	0.03	202	No	0.03	203	No	<0.01
	25	220	203	No	0.05	205	No	0.05	206	No	<0.01
	30	220	206	No	0.11	207	No	0.08	208	No	<0.01
	35	220	208	No	0.16	209	No	0.12	210	No	<0.01
	40	220	210	No	0.19	211	No	0.18	213	No	0.02

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	220	212	No	0.27	213	No	0.22	215	No	0.08
	50	220	214	No	0.35	215	No	0.3	217	No	0.2
	55	220	216	No	0.45	217	No	0.4	219	No	0.39
	60	220	218	Yes	0.5	219	Yes	0.5	221	Yes	0.61
	65	220	220	Yes	0.6	221	Yes	0.6	223	Yes	0.8
	70	220	222	Yes	0.69	224	Yes	0.74	225	Yes	0.92
	75	220	224	Yes	0.77	226	Yes	0.82	227	Yes	0.98
	80	220	227	Yes	0.87	229	Yes	0.9	230	Yes	>0.99
	85	220	230	Yes	0.93	232	Yes	0.95	233	Yes	>0.99
	90	220	234	Yes	0.98	236	Yes	0.99	237	Yes	>0.99
	95	220	239	Yes	>0.99	241	Yes	>0.99	243	Yes	>0.99

Note. Prob. = Probability.

Table 3.13. Proficiency Projections Based on RIT Scores—Science

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.
4	5	209	174	No	<0.01	177	No	<0.01	179	No	<0.01
	10	209	178	No	<0.01	181	No	<0.01	183	No	<0.01
	15	209	181	No	<0.01	184	No	<0.01	187	No	<0.01
	20	209	184	No	<0.01	187	No	<0.01	189	No	<0.01
	25	209	186	No	0.01	189	No	0.01	191	No	<0.01
	30	209	188	No	0.02	191	No	0.01	193	No	<0.01
	35	209	190	No	0.03	193	No	0.03	195	No	<0.01
	40	209	192	No	0.06	195	No	0.05	197	No	<0.01
	45	209	193	No	0.08	196	No	0.07	199	No	<0.01
	50	209	195	No	0.1	198	No	0.09	200	No	0.01
	55	209	197	No	0.16	200	No	0.15	202	No	0.02
	60	209	198	No	0.19	201	No	0.18	204	No	0.08
	65	209	200	No	0.28	203	No	0.27	205	No	0.13
	70	209	202	No	0.33	205	No	0.33	207	No	0.28
	75	209	204	No	0.44	207	No	0.44	209	Yes	0.5
	80	209	206	Yes	0.56	209	Yes	0.56	211	Yes	0.72
	85	209	208	Yes	0.67	211	Yes	0.67	214	Yes	0.92
	90	209	211	Yes	0.76	215	Yes	0.85	217	Yes	0.99
	95	209	216	Yes	0.9	219	Yes	0.95	222	Yes	>0.99
7	5	222	185	No	<0.01	186	No	<0.01	186	No	<0.01
	10	222	190	No	<0.01	191	No	<0.01	192	No	<0.01
	15	222	193	No	<0.01	194	No	<0.01	195	No	<0.01
	20	222	196	No	<0.01	197	No	<0.01	198	No	<0.01
	25	222	198	No	<0.01	199	No	<0.01	200	No	<0.01
	30	222	200	No	0.01	201	No	<0.01	203	No	<0.01
	35	222	202	No	0.01	203	No	0.01	205	No	<0.01
	40	222	204	No	0.02	205	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	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	45	222	205	No	0.03	207	No	0.03	208	No	<0.01
	50	222	207	No	0.05	209	No	0.05	210	No	<0.01
	55	222	209	No	0.09	211	No	0.08	212	No	<0.01
	60	222	211	No	0.12	212	No	0.11	214	No	0.01
	65	222	212	No	0.14	214	No	0.17	216	No	0.04
	70	222	214	No	0.21	216	No	0.24	218	No	0.13
	75	222	216	No	0.3	218	No	0.34	220	No	0.28
	80	222	219	No	0.45	221	Yes	0.5	222	Yes	0.5
	85	222	221	Yes	0.55	223	Yes	0.61	225	Yes	0.8
	90	222	225	Yes	0.75	227	Yes	0.8	228	Yes	0.96
	95	222	230	Yes	0.91	232	Yes	0.94	234	Yes	>0.99

Note. Prob. = Probability.

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