Predicting Performance on the Oregon Smarter Balanced Summative Assessments Based on NWEA MAP Growth Scores

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Linking Study Updates

Date	Description
2021-03	Conducted a linking study for grades 3–8 in ELA/literacy 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 Oregon Smarter Balanced Assessment Consortium (OR SBAC) summative assessments in grades 3–8 English language arts/literacy (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 OR SBAC achievement levels. With this information, educators can identify students at risk of failing to meet state proficiency standards early in the year and provide tailored educational interventions. The linking study has been updated since the previous version to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025).

Table E.1 presents the OR SBAC Level 3 achievement 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 OR SBAC grade 3 ELA test is 2432. A grade 3 student with a MAP Growth reading RIT score of 194 in the fall is likely to meet proficiency on the OR SBAC ELA test in the spring, whereas a grade 3 student with a MAP Growth reading RIT score lower than 194 in the fall is in jeopardy of not meeting proficiency. MAP Growth cut scores for grade 2 are also provided so that educators can track early learners' progress toward proficiency on the OR SBAC test by grade 3. These cut scores were derived based on the grade 3 cuts and the 2025 NWEA growth norms for the adjacent grade (i.e., grades 2 to 3).

Table E.1. MAP Growth Cut Scores for OR SBAC Proficiency

Assessment		Level 3 Cut Scores by Grade						
		2	3	4	5	6	7	8
ELA/Reading								
OR SBAC Spring		–	2432	2473	2502	2531	2552	2567
MAP Growth	Fall	181	194	204	209	216	218	222
	Winter	187	199	207	212	217	219	223
	Spring	191	202	209	213	218	220	224
Mathematics								
OR SBAC Spring		–	2436	2485	2528	2552	2567	2586
MAP Growth	Fall	179	190	206	218	220	228	237
	Winter	187	199	214	224	227	233	242
	Spring	193	205	219	228	231	235	244

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 OR SBAC grades 3–8 ELA and mathematics tests are Oregon's state summative assessments aligned to the Oregon State Standards. Based on their test scores, students are placed into one of four achievement levels: Level 1, Level 2, Level 3, and Level 4. 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 OR SBAC achievement level cut scores. MAP Growth spring cut scores for grade 2 were then derived from the spring cuts for grade 3 and the growth norms for the adjacent grade (i.e., grades 2 to 3). Similarly, the MAP Growth cut scores for the fall and winter administrations of all grades were derived from the spring administration cuts and the growth norms for either fall to spring or winter to spring, respectively. The spring cuts[1] for mathematics were adjusted for score alignment before deriving the cuts for grade 2 spring and for all grades' fall and winter administrations.

E.3. Student Sample

Only students who took both the MAP Growth and OR SBAC assessments in Spring 2019 were included in the study sample. Table E.2 presents the weighted numbers of Oregon students from 4 districts and 76 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 achievement level, weighting (i.e., a statistical method that matches the distributions of the variables of interest to those of the target population) was applied to the sample. As a result, the RIT cuts derived from the study sample can be generalized to any student from the target population. All analyses 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.

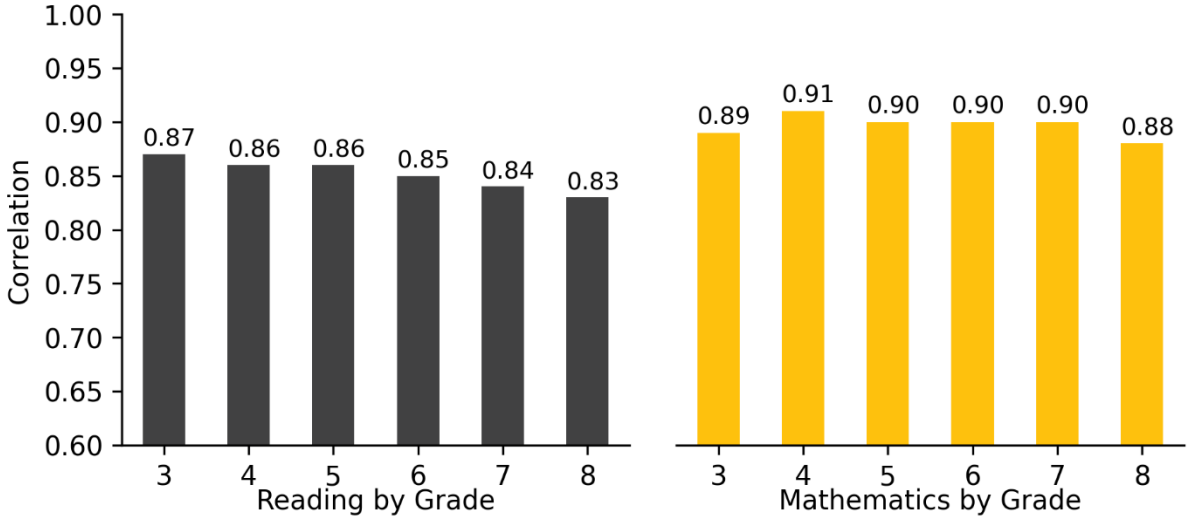
Table E.2. Linking Study Sample

Grade	# Students	
	ELA/Reading	Mathematics
3	1,964	3,381
4	2,003	3,465
5	1,817	3,348
6	1,322	3,272
7	1,253	2,877
8	1,057	2,623

E.4. Test Score Relationships

Correlations between MAP Growth RIT scores and OR SBAC scores range from 0.83 to 0.91 across 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 OR SBAC summative assessments.

Figure E.1. Correlations Between MAP Growth and OR SBAC Test Scores

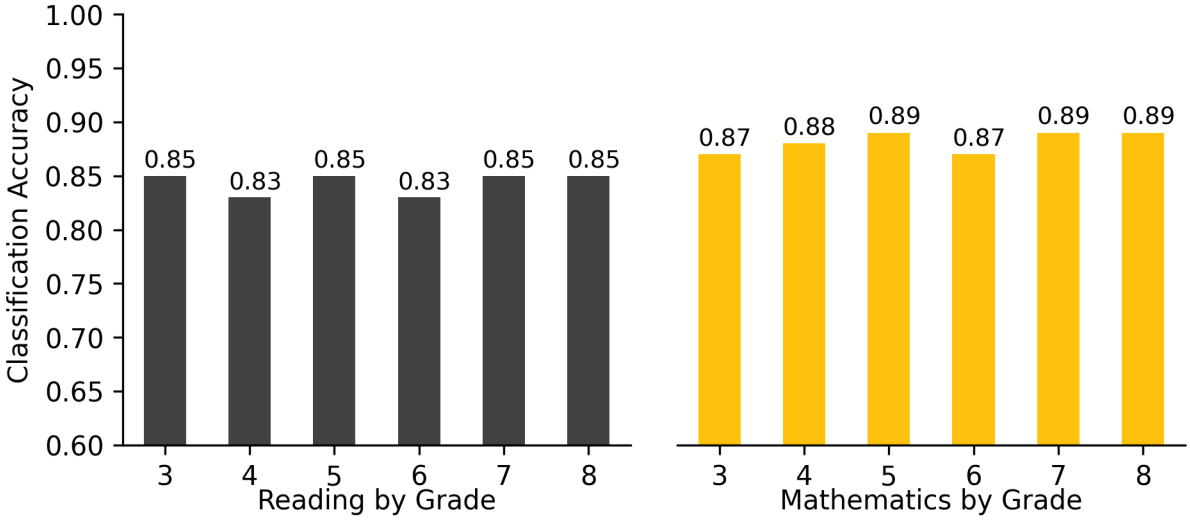


E.5. Accuracy of MAP Growth Classifications

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 OR SBAC summative tests.[2] For example, the MAP Growth reading grade 3 Level 3 cut score has a 0.85 accuracy rate, meaning it accurately classified student achievement on the state test for 85% of the sample. The results range from 0.83 to 0.89 across content areas, indicating that RIT scores have a high accuracy rate of identifying student proficiency on the OR SBAC summative 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 to statistically connect the scores of the Oregon Smarter Balanced Assessment Consortium (OR SBAC) grades 3–8 English language arts/literacy (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). In this updated study, MAP Growth cut scores are also included for grade 2 so that educators can track early learners' progress toward proficiency on the OR SBAC summative test by grade 3. This report presents the following results:

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

1.2. Assessment Overview

The OR SBAC grades 3–8 ELA and mathematics summative assessments are aligned to the Oregon State Standards. Each assessment has three cut scores (i.e., the minimum score a student must get on a test to be placed in a certain achievement level) that distinguish between the following achievement levels: 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 OR SBAC assessments. NWEA requested that Oregon 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 OR SBAC assessments in Spring 2019 were included in the study sample.

2.2. Post-Stratification Weighting

Post-stratification weights were applied to the calculations to ensure that the linking study sample represented the state population in terms of race, sex, and achievement level. These variables were selected because they are correlated with the student's academic achievement within this study and are often provided in the data for the state population. The weighted sample matches the target population as closely as possible for the key demographics and test score characteristics. Specifically, a raking procedure was used to calculate the post-stratification weights and improve the representativeness of the sample. Raking uses iterative procedures to obtain weights that match sample marginal distributions to known population margins. The following steps were taken during this process:

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

2.3. MAP Growth Cut Scores

The equipercentile linking method (Kolen & Brennan, 2004) was used to identify the spring MAP Growth RIT scores that correspond to the spring OR SBAC achievement level cut scores. Spring cuts for grade 2 were derived based on the cuts for grade 3 and the 2025 NWEA growth norms. RIT fall and winter cut scores that predict proficiency on the spring OR SBAC summative test were then projected using the 2025 growth norms. Percentile ranks are also provided that show how a nationally representative sample of students in the same grade scored on 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 achievement level designations for its summative assessment.

The MAP Growth spring cut scores for grades 3–8 could be calculated using the equipercentile linking method because that data are directly connected to the OR SBAC 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., OR SBAC). 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 OR SBAC tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the OR SBAC 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 OR SBAC 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 OR SBAC 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 OR SBAC summative 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 performance on the OR SBAC summative 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 performance on the OR SBAC summative 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 OR SBAC assessments in Spring 2019 were included in the study sample. Data used in this study were collected from 4 districts and 76 schools in Oregon. Table 3.1 presents the demographic distributions of race, sex, and achievement level in the original unweighted study sample. Table 3.2 presents the distributions of the student population who took the Spring 2019 OR SBAC summative assessments. Since the unweighted data are different from the general OR SBAC 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 OR SBAC 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	1,964	2,003	1,817	1,322	1,253	1,057
Race	AI/AN	2.8	2.8	2.8	4.1	5.5	4.8
	Asian	5.8	5.5	5.9	5.6	5.5	5.6
	Black	9.3	11.3	9.1	10.4	10.0	8.6
	Hispanic	17.4	17.2	18.2	21.3	18.7	21.7
	Multi-Race	10.8	10.4	11.7	9.4	11.3	9.6
	Pacific Islander	1.0	0.5	0.8	0.7	0.7	0.9
	White	52.9	52.2	51.6	48.6	48.3	48.8
Sex	Female	49.4	50.3	50.4	49.3	48.3	49.7
	Male	50.6	49.7	49.6	50.7	51.7	50.3
Achievement Level	Level 1	27.0	33.0	25.8	29.3	27.4	26.2
	Level 2	20.2	15.3	15.8	24.4	20.2	22.5
	Level 3	22.0	20.8	28.5	29.4	30.2	30.1
	Level 4	30.8	30.9	29.9	16.9	22.2	21.2
Mathematics							
	Total N	3,381	3,465	3,348	3,272	2,877	2,623
Race	AI/AN	1.9	1.7	1.9	2.0	2.6	2.3
	Asian	6.7	6.5	7.0	7.1	7.0	6.8
	Black	8.2	9.5	8.8	7.7	6.8	6.4
	Hispanic	14.7	14.4	15.6	15.8	15.1	15.5
	Multi-Race	11.1	10.4	11.4	10.8	11.6	10.2
	Pacific Islander	0.9	0.6	0.7	0.5	0.7	0.7
	White	56.6	56.9	54.5	56.1	56.2	58.1
Sex	Female	48.9	49.6	49.1	48.5	46.4	46.6
	Male	51.1	50.4	50.	51.5	53.6	53.4
Achievement Level	Level 1	25.8	25.8	31.0	31.7	27.6	31.1
	Level 2	20.6	26.6	25.9	25.1	21.2	20.2

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
	Level 3	28.5	27.5	19.2	18.0	22.5	16.6
	Level 4	25.1	20.1	23.9	25.2	28.6	32.1

Note. AI/AN = American Indian/Alaska Native.

Table 3.2. Spring 2019 OR SBAC Student Population Demographics

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA							
	Total N	42,299	43,476	44,905	44,654	43,229	41,762
Race	AI/AN	1.1	1.2	1.2	1.3	1.3	1.3
	Asian	4.0	4.0	3.9	3.9	4.2	4.1
	Black	2.3	2.4	2.3	2.2	2.2	2.2
	Hispanic	24.0	24.6	24.7	24.6	24.8	24.4
	Multi-Race	6.6	6.6	6.7	6.5	6.3	6.3
	Pacific Islander	0.8	0.7	0.8	0.7	0.8	0.8
	White	61.3	60.5	60.5	60.7	60.4	61.1
Sex	Female	48.9	48.4	48.9	48.9	48.8	48.0
	Male	51.1	51.6	51.1	51.1	51.2	52.0
Achievement Level	Level 1	28.7	30.3	25.5	22.9	22.8	22.5
	Level 2	24.9	20.5	20.5	25.6	22.3	24.4
	Level 3	22.6	23.5	30.4	33.0	36.1	34.8
	Level 4	23.9	25.6	23.6	18.5	18.8	18.4
Mathematics							
	Total N	42,188	43,353	44,754	44,504	42,921	41,421
Race	AI/AN	1.1	1.2	1.2	1.3	1.3	1.3
	Asian	4.0	4.0	3.9	4.0	4.2	4.1
	Black	2.3	2.4	2.3	2.2	2.1	2.2
	Hispanic	24.0	24.7	24.7	24.6	24.9	24.4
	Multi-Race	6.6	6.6	6.7	6.5	6.2	6.2
	Pacific Islander	0.8	0.7	0.8	0.7	0.8	0.8
	White	61.3	60.4	60.5	60.7	60.5	61.0
Sex	Female	48.9	48.3	48.9	48.9	48.7	47.9
	Male	51.1	51.7	51.1	51.1	51.3	52.1
Achievement Level	Level 1	30.0	25.6	34.2	34.2	33.6	37.8
	Level 2	23.6	31.2	27.9	28.7	26.3	24.0
	Level 3	26.4	25.1	17.5	18.8	20.8	16.9
	Level 4	20.0	18.1	20.3	18.3	19.3	21.3

Note. AI/AN = American Indian/Alaska Native.

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	1,964	2,003	1,817	1,322	1,253	1,057
Race	AI/AN	1.1	1.2	1.2	1.3	1.3	1.3
	Asian	4.0	4.0	3.9	3.9	4.2	4.1
	Black	2.4	2.4	2.3	2.2	2.2	2.2
	Hispanic	24.0	24.7	24.7	24.6	24.9	24.4
	Multi-Race	6.5	6.6	6.7	6.5	6.3	6.3
	Pacific Islander	0.8	0.7	0.8	0.7	0.8	0.8
	White	61.3	60.4	60.5	60.7	60.4	61.0
Sex	Female	48.9	48.4	48.9	48.9	48.8	48.0
	Male	51.1	51.6	51.1	51.1	51.2	52.0
Achievement Level	Level 1	28.7	30.3	25.5	22.9	22.8	22.5
	Level 2	24.8	20.5	20.5	25.6	22.3	24.4
	Level 3	22.6	23.5	30.4	33.0	36.1	34.8
	Level 4	23.9	25.6	23.6	18.5	18.8	18.4
Mathematics							
	Total N	3,381	3,465	3,348	3,272	2,877	2,623
Race	AI/AN	1.1	1.2	1.2	1.3	1.3	1.3
	Asian	4.0	4.0	3.9	4.0	4.2	4.1
	Black	2.3	2.4	2.3	2.2	2.1	2.2
	Hispanic	24.0	24.7	24.7	24.6	24.9	24.4
	Multi-Race	6.6	6.6	6.7	6.5	6.2	6.2
	Pacific Islander	0.8	0.7	0.8	0.7	0.8	0.8
	White	61.3	60.4	60.5	60.7	60.4	61.0
Sex	Female	48.9	48.3	48.9	48.9	48.7	47.9
	Male	51.1	51.7	51.1	51.1	51.3	52.1
Achievement Level	Level 1	30.0	25.6	34.2	34.2	33.6	37.8
	Level 2	23.6	31.2	27.9	28.7	26.3	24.0
	Level 3	26.4	25.1	17.5	18.8	20.8	16.9
	Level 4	20.0	18.1	20.3	18.3	19.3	21.3

Note. AI/AN = American Indian/Alaska Native.

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and OR SBAC test scores from Spring 2019, including the correlation coefficients (*r*) between them. The correlation coefficients between the scores range from 0.83 to 0.87 for ELA/reading and 0.88 to 0.91 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 OR SBAC summative assessments.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	*r*	OR SBAC				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
ELA/Reading										
3	1,964	0.87	2420.8	95.1	2147	2697	198.4	18.4	148	240
4	2,003	0.86	2464.8	100.3	2184	2761	206.4	17.6	146	249
5	1,817	0.86	2509.0	101.4	2184	2775	212.3	17.1	152	266
6	1,322	0.85	2529.7	101.9	2186	2891	216.1	17.6	156	259
7	1,253	0.84	2556.2	107.3	1941	2852	219.7	17.8	156	266
8	1,057	0.83	2566.6	109.9	2245	2867	222.2	18.4	162	267
Mathematics										
3	3,381	0.89	2425.1	89.0	2097	2736	200.2	15.6	139	256
4	3,465	0.91	2465.7	89.5	2147	2796	210.1	16.7	147	269
5	3,348	0.90	2494.1	98.6	2067	2871	217.7	18.8	148	276
6	3,272	0.90	2508.1	115.7	1985	2924	221.2	17.9	159	272
7	2,877	0.90	2530.0	120.6	1908	3042	226.7	20.1	156	291
8	2,623	0.88	2544.8	131.0	2172	2972	232.0	21.9	159	295

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

3.3. MAP Growth Cut Scores

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

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

Table 3.5. MAP Growth Cut Scores—ELA/Reading

OR SBAC ELA								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
3	≤2366		2367–2431		**2432**–2489		≥2490	
4	≤2415		2416–2472		**2473**–2532		≥2533	
5	≤2441		2442–2501		**2502**–2581		≥2582	
6	≤2456		2457–2530		**2531**–2617		≥2618	
7	≤2478		2479–2551		**2552**–2648		≥2649	
8	≤2486		2487–2566		**2567**–2667		≥2668	
MAP Growth Reading								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–161	1–31	162–180	32–73	**181**–194	74–92	195–350	93–99
3	100–178	1–37	179–193	38–68	**194**–205	69–87	206–350	88–99
4	100–192	1–43	193–203	44–66	**204**–213	67–83	214–350	84–99
5	100–196	1–34	197–208	35–61	**209**–221	62–84	222–350	85–99
6	100–200	1–31	201–215	32–65	**216**–228	66–87	229–350	88–99
7	100–203	1–30	204–217	31–62	**218**–232	63–88	233–350	89–99
8	100–207	1–32	208–221	33–63	**222**–235	64–87	236–350	88–99
Winter								
2	100–168	1–32	169–186	33–72	**187**–200	73–91	201–350	92–99
3	100–183	1–36	184–198	37–68	**199**–209	69–86	210–350	87–99
4	100–196	1–44	197–206	45–65	**207**–216	66–83	217–350	84–99
5	100–199	1–35	200–211	36–62	**212**–222	63–82	223–350	83–99
6	100–202	1–31	203–216	32–64	**217**–229	65–87	230–350	88–99
7	100–205	1–31	206–218	32–61	**219**–233	62–88	234–350	89–99
8	100–208	1–31	209–222	32–63	**223**–236	64–87	237–350	88–99
Spring								
2	100–174	1–34	175–190	35–69	**191**–202	70–88	203–350	89–99
3	100–188	1–39	189–201	40–66	**202**–211	67–83	212–350	84–99
4	100–199	1–44	200–208	45–64	**209**–217	65–81	218–350	82–99
5	100–202	1–37	203–212	38–60	**213**–223	61–81	224–350	82–99
6	100–204	1–33	205–217	34–63	**218**–230	64–86	231–350	87–99
7	100–207	1–33	208–219	34–61	**220**–234	62–87	235–350	88–99
8	100–210	1–34	211–223	35–63	**224**–237	64–87	238–350	88–99

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

OR SBAC Mathematics								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
3	≤2380		2381–2435		**2436**–2500		≥2501	
4	≤2410		2411–2484		**2485**–2548		≥2549	
5	≤2454		2455–2527		**2528**–2578		≥2579	
6	≤2472		2473–2551		**2552**–2609		≥2610	
7	≤2483		2484–2566		**2567**–2634		≥2635	
8	≤2503		2504–2585		**2586**–2652		≥2653	
MAP Growth Mathematics								
Grade	**Level 1**		**Level 2**		**Level 3**		**Level 4**	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall								
2	100–166	1–34	167–178	35–64	**179**–194	65–91	195–350	92–99
3	100–179	1–39	180–189	40–64	**190**–201	65–87	202–350	88–99
4	100–190	1–34	191–205	35–70	**206**–217	71–90	218–350	91–99
5	100–202	1–41	203–217	42–76	**218**–226	77–89	227–350	90–99
6	100–208	1–46	209–219	47–72	**220**–229	73–88	230–350	89–99
7	100–214	1–44	215–227	45–72	**228**–239	73–90	240–350	91–99
8	100–223	1–53	224–236	54–78	**237**–246	79–90	247–350	91–99
Winter								
2	100–174	1–34	175–186	35–63	**187**–202	64–91	203–350	92–99
3	100–187	1–38	188–198	39–64	**199**–211	65–87	212–350	88–99
4	100–197	1–34	198–213	35–70	**214**–225	71–89	226–350	90–99
5	100–208	1–43	209–223	44–75	**224**–232	76–88	233–350	89–99
6	100–214	1–47	215–226	48–73	**227**–236	74–88	237–350	89–99
7	100–218	1–45	219–232	46–73	**233**–244	74–89	245–350	90–99
8	100–227	1–53	228–241	54–79	**242**–251	80–90	252–350	91–99
Spring								
2	100–181	1–36	182–192	37–62	**193**–206	63–88	207–350	89–99
3	100–194	1–39	195–204	40–63	**205**–216	64–84	217–350	85–99
4	100–203	1–36	204–218	37–68	**219**–230	69–87	231–350	88–99
5	100–212	1–43	213–227	44–73	**228**–236	74–86	237–350	87–99
6	100–218	1–46	219–230	47–71	**231**–240	72–86	241–350	87–99
7	100–221	1–45	222–234	46–71	**235**–246	72–87	247–350	88–99
8	100–230	1–53	231–243	54–76	**244**–253	77–88	254–350	89–99

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

3.4. Classification Accuracy

Table 3.7 presents the classification accuracy summary statistics, including the overall classification accuracy rates. These results indicate how well MAP Growth spring RIT scores predict proficiency on the OR SBAC summative tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.83 to 0.85 for ELA/reading and 0.87 to 0.89 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 OR SBAC summative assessment.

Although the results show that MAP Growth scores can be used to accurately classify students as likely to be proficient on the OR SBAC summative tests, there is a notable limitation to how these results should be used and interpreted. The OR SBAC 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	OR SBAC		FP	FN				
ELA/Reading										
3	1,964	202	2432	0.85	0.16	0.13	0.87	0.84	0.83	0.94
4	2,003	209	2473	0.83	0.18	0.15	0.85	0.82	0.82	0.92
5	1,817	213	2502	0.85	0.17	0.13	0.87	0.83	0.86	0.94
6	1,322	218	2531	0.83	0.18	0.16	0.84	0.82	0.83	0.92
7	1,253	220	2552	0.85	0.16	0.14	0.86	0.84	0.86	0.93
8	1,057	224	2567	0.85	0.16	0.14	0.86	0.84	0.86	0.93
Mathematics										
3	3,381	203	2436	0.87	0.14	0.12	0.88	0.86	0.84	0.95
4	3,465	214	2485	0.88	0.12	0.12	0.88	0.88	0.85	0.96
5	3,348	225	2528	0.89	0.08	0.16	0.84	0.92	0.86	0.96
6	3,272	228	2552	0.87	0.12	0.16	0.84	0.88	0.81	0.95
7	2,877	233	2567	0.89	0.10	0.12	0.88	0.90	0.85	0.96
8	2,623	240	2586	0.89	0.09	0.13	0.87	0.91	0.85	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 OR SBAC summative test based on RIT scores from fall, winter, or spring. “Prob.” indicates the probability of obtaining proficiency status on the OR SBAC summative test in the spring. For example, a grade 3 student who obtained a MAP Growth reading score of 204 in the fall has an 82% chance of reaching proficiency on the OR SBAC summative 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	191	142	No	<0.01	149	No	<0.01	153	No	<0.01
	10	191	148	No	<0.01	155	No	<0.01	159	No	<0.01
	15	191	152	No	<0.01	159	No	<0.01	164	No	<0.01
	20	191	156	No	0.01	162	No	<0.01	167	No	<0.01
	25	191	159	No	0.02	165	No	0.01	170	No	<0.01
	30	191	161	No	0.03	168	No	0.02	173	No	<0.01
	35	191	163	No	0.05	170	No	0.04	175	No	<0.01
	40	191	166	No	0.07	172	No	0.06	177	No	<0.01
	45	191	168	No	0.11	175	No	0.09	180	No	<0.01
	50	191	170	No	0.16	177	No	0.14	182	No	0.01
	55	191	172	No	0.19	179	No	0.2	184	No	0.02
	60	191	174	No	0.25	181	No	0.24	186	No	0.08
	65	191	177	No	0.37	183	No	0.32	188	No	0.2
	70	191	179	No	0.41	186	No	0.45	191	Yes	0.5
	75	191	182	Yes	0.54	188	Yes	0.55	193	Yes	0.72
	80	191	184	Yes	0.63	191	Yes	0.64	196	Yes	0.92
	85	191	188	Yes	0.75	194	Yes	0.76	200	Yes	0.99
	90	191	192	Yes	0.87	199	Yes	0.89	204	Yes	>0.99
	95	191	198	Yes	0.95	205	Yes	0.97	210	Yes	>0.99
3	5	202	155	No	<0.01	160	No	<0.01	164	No	<0.01
	10	202	161	No	<0.01	167	No	<0.01	171	No	<0.01
	15	202	166	No	<0.01	171	No	<0.01	175	No	<0.01
	20	202	169	No	0.01	175	No	0.01	179	No	<0.01
	25	202	172	No	0.02	178	No	0.01	182	No	<0.01
	30	202	175	No	0.03	180	No	0.02	184	No	<0.01
	35	202	178	No	0.06	183	No	0.05	187	No	<0.01
	40	202	180	No	0.09	185	No	0.06	189	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	45	202	182	No	0.11	188	No	0.12	192	No	<0.01
	50	202	185	No	0.18	190	No	0.17	194	No	0.01
	55	202	187	No	0.25	192	No	0.24	196	No	0.04
	60	202	189	No	0.33	194	No	0.27	198	No	0.13
	65	202	192	No	0.41	197	No	0.41	201	No	0.39
	70	202	194	Yes	0.5	199	Yes	0.5	203	Yes	0.61
	75	202	197	Yes	0.59	202	Yes	0.64	206	Yes	0.87
	80	202	200	Yes	0.71	205	Yes	0.73	209	Yes	0.98
	85	202	204	Yes	0.82	209	Yes	0.86	213	Yes	>0.99
	90	202	208	Yes	0.91	213	Yes	0.92	217	Yes	>0.99
	95	202	215	Yes	0.98	220	Yes	0.99	224	Yes	>0.99
	5	209	166	No	<0.01	170	No	<0.01	173	No	<0.01
	10	209	173	No	<0.01	177	No	<0.01	179	No	<0.01
	15	209	177	No	<0.01	181	No	<0.01	184	No	<0.01
	20	209	181	No	0.01	184	No	<0.01	187	No	<0.01
	25	209	184	No	0.02	187	No	0.01	190	No	<0.01
	30	209	186	No	0.03	190	No	0.03	193	No	<0.01
	35	209	189	No	0.06	193	No	0.05	195	No	<0.01
	40	209	191	No	0.1	195	No	0.08	198	No	<0.01
4	45	209	194	No	0.14	197	No	0.13	200	No	0.01
	50	209	196	No	0.2	199	No	0.19	202	No	0.02
	55	209	198	No	0.28	202	No	0.27	204	No	0.08
	60	209	200	No	0.36	204	No	0.35	207	No	0.28
	65	209	203	No	0.45	206	No	0.45	209	Yes	0.5
	70	209	205	Yes	0.55	209	Yes	0.6	211	Yes	0.72
	75	209	208	Yes	0.68	211	Yes	0.65	214	Yes	0.92
	80	209	211	Yes	0.76	214	Yes	0.77	217	Yes	0.99
	85	209	215	Yes	0.88	218	Yes	0.9	220	Yes	>0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	90	209	219	Yes	0.94	222	Yes	0.96	225	Yes	>0.99
	95	209	226	Yes	0.99	229	Yes	>0.99	231	Yes	>0.99
5	5	213	175	No	<0.01	178	No	<0.01	180	No	<0.01
	10	213	181	No	<0.01	184	No	<0.01	186	No	<0.01
	15	213	186	No	0.01	189	No	0.01	191	No	<0.01
	20	213	189	No	0.02	192	No	0.01	194	No	<0.01
	25	213	192	No	0.03	195	No	0.03	197	No	<0.01
	30	213	195	No	0.07	197	No	0.05	199	No	<0.01
	35	213	197	No	0.11	200	No	0.1	202	No	<0.01
	40	213	199	No	0.14	202	No	0.15	204	No	0.01
	45	213	201	No	0.2	204	No	0.18	206	No	0.02
	50	213	204	No	0.31	206	No	0.26	208	No	0.08
	55	213	206	No	0.36	209	No	0.4	211	No	0.28
	60	213	208	No	0.45	211	No	0.45	213	Yes	0.5
	65	213	210	Yes	0.55	213	Yes	0.55	215	Yes	0.72
	70	213	213	Yes	0.64	215	Yes	0.65	217	Yes	0.87
	75	213	215	Yes	0.73	218	Yes	0.78	220	Yes	0.98
	80	213	218	Yes	0.84	221	Yes	0.88	223	Yes	>0.99
	85	213	222	Yes	0.91	224	Yes	0.94	226	Yes	>0.99
	90	213	226	Yes	0.97	228	Yes	0.98	230	Yes	>0.99
	95	213	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	
				Level 3	Prob.		Level 3	Prob.		Level 3	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	220	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	220	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	220	195	No	0.01	196	No	0.01	197	No	<0.01
	20	220	198	No	0.02	200	No	0.02	201	No	<0.01
	25	220	201	No	0.04	202	No	0.03	203	No	<0.01
	30	220	204	No	0.08	205	No	0.06	206	No	<0.01
	35	220	206	No	0.1	207	No	0.09	208	No	<0.01
	40	220	208	No	0.15	210	No	0.16	211	No	0.01
	45	220	210	No	0.21	212	No	0.2	213	No	0.02
	50	220	212	No	0.28	214	No	0.27	215	No	0.08
	55	220	214	No	0.32	216	No	0.36	217	No	0.2
	60	220	217	No	0.45	218	No	0.45	219	No	0.39
	65	220	219	Yes	0.55	220	Yes	0.55	221	Yes	0.61
	70	220	221	Yes	0.64	223	Yes	0.69	224	Yes	0.87
	75	220	224	Yes	0.76	225	Yes	0.77	226	Yes	0.96
	80	220	226	Yes	0.82	228	Yes	0.86	229	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.
	85	220	230	Yes	0.92	231	Yes	0.93	232	Yes	>0.99
	90	220	234	Yes	0.97	235	Yes	0.97	237	Yes	>0.99
	95	220	240	Yes	0.99	241	Yes	>0.99	243	Yes	>0.99
8	5	224	188	No	<0.01	189	No	<0.01	190	No	<0.01
	10	224	194	No	<0.01	195	No	<0.01	196	No	<0.01
	15	224	198	No	0.01	199	No	<0.01	200	No	<0.01
	20	224	201	No	0.02	203	No	0.02	203	No	<0.01
	25	224	204	No	0.04	205	No	0.02	206	No	<0.01
	30	224	207	No	0.06	208	No	0.05	209	No	<0.01
	35	224	209	No	0.09	210	No	0.08	211	No	<0.01
	40	224	211	No	0.13	213	No	0.12	213	No	<0.01
	45	224	214	No	0.18	215	No	0.17	216	No	0.01
	50	224	216	No	0.25	217	No	0.24	218	No	0.04
	55	224	218	No	0.33	219	No	0.32	220	No	0.13
	60	224	220	No	0.41	221	No	0.41	222	No	0.28
	65	224	222	Yes	0.5	223	Yes	0.5	224	Yes	0.5
	70	224	225	Yes	0.63	226	Yes	0.64	227	Yes	0.8
	75	224	227	Yes	0.71	228	Yes	0.72	229	Yes	0.92
	80	224	230	Yes	0.82	231	Yes	0.83	232	Yes	0.99
	85	224	233	Yes	0.89	235	Yes	0.92	236	Yes	>0.99
	90	224	238	Yes	0.96	239	Yes	0.97	240	Yes	>0.99
	95	224	244	Yes	0.99	245	Yes	>0.99	246	Yes	>0.99

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

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
	45	205	182	No	0.15	191	No	0.17	197	No	0.01
	50	205	184	No	0.22	193	No	0.2	199	No	0.04
	55	205	186	No	0.3	195	No	0.29	201	No	0.13
	60	205	188	No	0.4	197	No	0.39	203	No	0.28
	65	205	190	Yes	0.5	199	Yes	0.5	206	Yes	0.61
	70	205	192	Yes	0.6	201	Yes	0.61	208	Yes	0.8
	75	205	195	Yes	0.74	204	Yes	0.76	211	Yes	0.96
	80	205	197	Yes	0.81	206	Yes	0.83	213	Yes	0.99
	85	205	200	Yes	0.9	210	Yes	0.92	217	Yes	>0.99
	90	205	204	Yes	0.96	214	Yes	0.97	221	Yes	>0.99
	95	205	210	Yes	0.99	220	Yes	>0.99	227	Yes	>0.99
	5	219	171	No	<0.01	176	No	<0.01	180	No	<0.01
	10	219	177	No	<0.01	183	No	<0.01	187	No	<0.01
	15	219	181	No	<0.01	187	No	<0.01	191	No	<0.01
	20	219	184	No	<0.01	190	No	<0.01	195	No	<0.01
	25	219	186	No	0.01	193	No	<0.01	198	No	<0.01
	30	219	189	No	0.02	196	No	0.01	201	No	<0.01
	35	219	191	No	0.03	198	No	0.02	203	No	<0.01
	40	219	193	No	0.05	200	No	0.03	206	No	<0.01
4	45	219	195	No	0.09	202	No	0.06	208	No	<0.01
	50	219	197	No	0.13	204	No	0.1	210	No	0.01
	55	219	199	No	0.19	207	No	0.2	212	No	0.02
	60	219	201	No	0.27	209	No	0.24	215	No	0.13
	65	219	203	No	0.35	211	No	0.33	217	No	0.28
	70	219	205	No	0.45	213	No	0.44	220	Yes	0.61
	75	219	208	Yes	0.6	216	Yes	0.61	222	Yes	0.8
	80	219	210	Yes	0.69	219	Yes	0.76	225	Yes	0.96
	85	219	214	Yes	0.84	222	Yes	0.87	229	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	219	217	Yes	0.91	226	Yes	0.96	233	Yes	>0.99
	95	219	223	Yes	0.98	232	Yes	0.99	240	Yes	>0.99
5	5	228	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	228	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	228	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	228	193	No	<0.01	197	No	<0.01	200	No	<0.01
	25	228	195	No	<0.01	200	No	<0.01	204	No	<0.01
	30	228	198	No	0.01	203	No	<0.01	206	No	<0.01
	35	228	200	No	0.01	205	No	<0.01	209	No	<0.01
	40	228	202	No	0.02	207	No	0.01	211	No	<0.01
	45	228	204	No	0.04	210	No	0.02	214	No	<0.01
	50	228	206	No	0.06	212	No	0.04	216	No	<0.01
	55	228	208	No	0.1	214	No	0.08	218	No	<0.01
	60	228	210	No	0.15	216	No	0.13	221	No	0.02
	65	228	212	No	0.22	219	No	0.24	223	No	0.08
	70	228	215	No	0.35	221	No	0.33	226	No	0.28
	75	228	217	No	0.45	224	Yes	0.5	228	Yes	0.5
	80	228	220	Yes	0.6	226	Yes	0.61	232	Yes	0.87
	85	228	223	Yes	0.74	230	Yes	0.8	235	Yes	0.98
	90	228	227	Yes	0.88	234	Yes	0.92	240	Yes	>0.99
	95	228	233	Yes	0.98	240	Yes	0.99	246	Yes	>0.99
6	5	231	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	231	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	231	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	231	197	No	<0.01	201	No	<0.01	205	No	<0.01
	25	231	199	No	<0.01	204	No	<0.01	208	No	<0.01
	30	231	202	No	0.01	207	No	<0.01	211	No	<0.01
	35	231	204	No	0.02	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	231	206	No	0.03	212	No	0.02	216	No	<0.01
	45	231	208	No	0.05	214	No	0.04	218	No	<0.01
	50	231	210	No	0.09	216	No	0.07	220	No	<0.01
	55	231	212	No	0.13	218	No	0.11	223	No	0.01
	60	231	214	No	0.19	220	No	0.17	225	No	0.04
	65	231	216	No	0.27	223	No	0.29	227	No	0.13
	70	231	219	No	0.4	225	No	0.39	230	No	0.39
	75	231	221	Yes	0.55	228	Yes	0.55	233	Yes	0.72
	80	231	224	Yes	0.69	231	Yes	0.71	236	Yes	0.92
	85	231	227	Yes	0.81	234	Yes	0.83	239	Yes	0.99
	90	231	231	Yes	0.91	238	Yes	0.93	244	Yes	>0.99
	95	231	237	Yes	0.98	245	Yes	0.99	251	Yes	>0.99
7	5	235	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	235	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	235	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	235	203	No	<0.01	206	No	<0.01	208	No	<0.01
	25	235	206	No	<0.01	209	No	<0.01	211	No	<0.01
	30	235	208	No	0.01	211	No	<0.01	214	No	<0.01
	35	235	211	No	0.02	214	No	0.01	216	No	<0.01
	40	235	213	No	0.03	216	No	0.02	219	No	<0.01
	45	235	215	No	0.06	219	No	0.04	221	No	<0.01
	50	235	217	No	0.09	221	No	0.07	224	No	<0.01
	55	235	219	No	0.14	223	No	0.12	226	No	0.01
	60	235	222	No	0.23	226	No	0.22	229	No	0.04
	65	235	224	No	0.31	228	No	0.3	231	No	0.13
	70	235	226	No	0.4	231	No	0.4	234	No	0.39
	75	235	229	Yes	0.55	233	Yes	0.5	237	Yes	0.72
	80	235	232	Yes	0.69	236	Yes	0.65	240	Yes	0.92

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	235	235	Yes	0.8	240	Yes	0.82	244	Yes	0.99
	90	235	239	Yes	0.91	245	Yes	0.94	249	Yes	>0.99
	95	235	246	Yes	0.99	251	Yes	0.99	256	Yes	>0.99
8	5	244	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	244	199	No	<0.01	201	No	<0.01	203	No	<0.01
	15	244	203	No	<0.01	206	No	<0.01	208	No	<0.01
	20	244	207	No	<0.01	210	No	<0.01	212	No	<0.01
	25	244	210	No	<0.01	213	No	<0.01	215	No	<0.01
	30	244	212	No	<0.01	216	No	<0.01	218	No	<0.01
	35	244	215	No	0.01	219	No	<0.01	221	No	<0.01
	40	244	217	No	0.01	221	No	0.01	224	No	<0.01
	45	244	220	No	0.03	224	No	0.02	226	No	<0.01
	50	244	222	No	0.04	226	No	0.03	229	No	<0.01
	55	244	224	No	0.07	228	No	0.05	231	No	<0.01
	60	244	227	No	0.13	231	No	0.1	234	No	<0.01
	65	244	229	No	0.18	233	No	0.16	237	No	0.02
	70	244	232	No	0.28	236	No	0.26	239	No	0.08
	75	244	234	No	0.37	239	No	0.35	242	No	0.28
	80	244	237	Yes	0.5	242	Yes	0.5	246	Yes	0.72
	85	244	241	Yes	0.68	246	Yes	0.69	250	Yes	0.96
	90	244	246	Yes	0.85	251	Yes	0.87	255	Yes	>0.99
	95	244	252	Yes	0.96	258	Yes	0.98	262	Yes	>0.99

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