Predicting Performance on the NSCAS General Summative Assessments Based on NWEA MAP Growth Scores

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NWEA Psychometrics and Analytics

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Linking Study Updates

Date	Description
2020-09	Conducted a linking study for grades 3–8 in mathematics and ELA/reading based on the 2020 norms and Spring 2019 data.
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

To predict student achievement on the Nebraska Student-Centered Assessment System (NSCAS) general summative assessments in grades 3–8 in English language arts (ELA) and mathematics, NWEA® conducted a linking study using Spring 2019 data to derive Rasch Unit (RIT) cut scores on the MAP® Growth™ assessments that correspond to the NSCAS 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 new 2025 NWEA MAP Growth norms (NWEA, 2025).

Table E.1 presents the NSCAS *On Track* achievement level cut scores and the corresponding MAP Growth RIT cut scores that allow teachers to identify students who are on track for proficiency on the state summative test and those who are not. For example, the *On Track* cut score on the NSCAS grade 3 ELA test is 2477. A grade 3 student with a MAP Growth reading RIT score of 192 in the fall is likely to meet proficiency (*On Track* or higher) on the NSCAS ELA test in the spring, whereas a grade 3 student with a MAP Growth reading RIT score lower than 192 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 NSCAS 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 NSCAS Proficiency

Assessment		*On Track* Cut Scores by Grade						
		2	**3**	**4**	**5**	**6**	**7**	**8**
ELA/Reading								
NSCAS Spring		–	2477	2500	2531	2543	2556	2561
MAP Growth	Fall	178	192	200	211	217	220	222
	Winter	185	197	204	214	218	221	223
	Spring	189	200	206	215	219	222	224
Mathematics								
NSCAS Spring		–	1190	1222	1236	1244	1247	1264
MAP Growth	Fall	181	191	206	215	219	227	234
	Winter	190	200	214	221	225	232	239
	Spring	195	206	219	225	229	234	241

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 NSCAS grades 3–8 ELA and mathematics tests are Nebraska's state summative assessments aligned to the Nebraska's College and Career Ready Standards. Based on their test scores, students are placed into one of three achievement levels: *Developing*, *On Track*, and *College and Career Ready (CCR) Benchmark*. These tests are used to provide evidence of student achievement in ELA and mathematics for various test score uses, such as meeting the requirements of the state's accountability program. The *On Track* 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 NSCAS 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 NSCAS assessments in Spring 2019 were included in the study sample. Table E.2 presents the weighted numbers of Nebraska students from 186 districts and 588 schools who were included in the linking study. Since not all students in Nebraska took MAP Growth, the sample may 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.

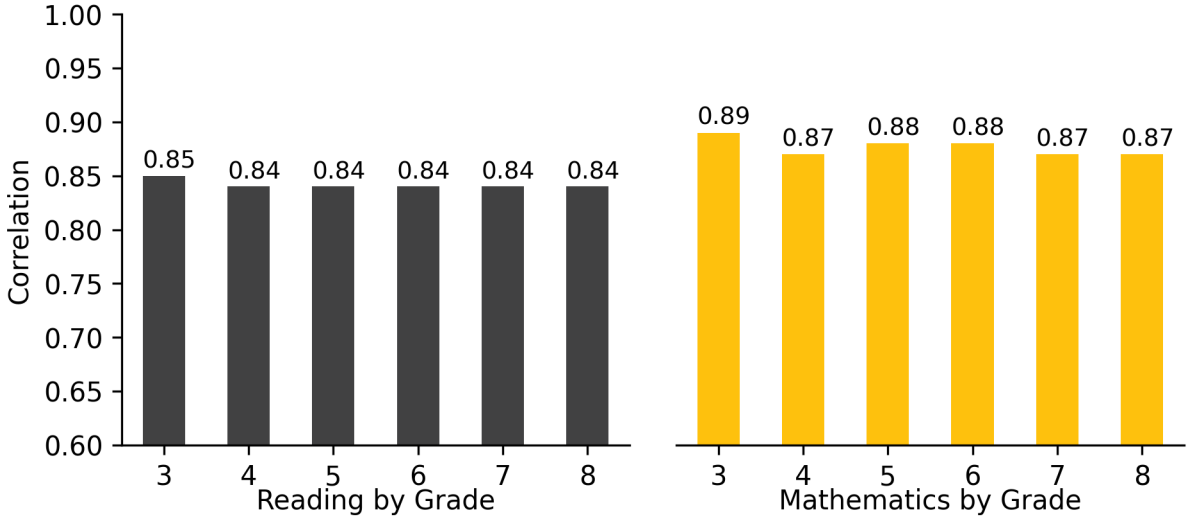
Table E.2. Linking Study Sample

Grade	# Students	
	ELA/Reading	Mathematics
3	15,096	15,062
4	15,228	15,077
5	15,137	15,215
6	14,167	14,288
7	14,771	14,108
8	14,223	13,829

E.4. Test Score Relationships

Correlations between MAP Growth RIT scores and NSCAS scores range from 0.84 to 0.89 across both content areas, as shown in Figure E.1. These values indicate a strong relationship among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the NSCAS assessments.

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

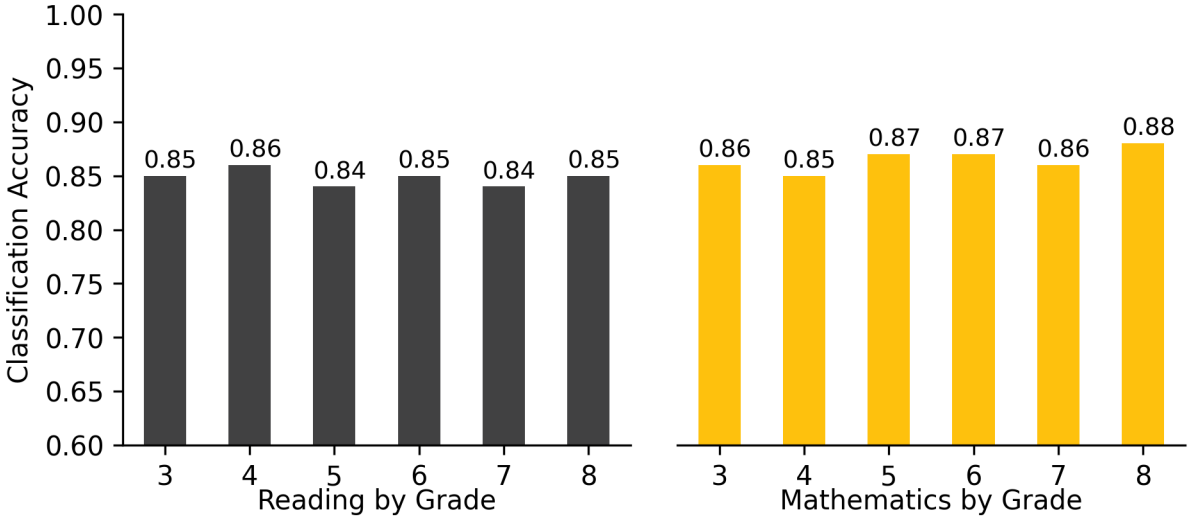


E.5. Accuracy of MAP Growth Classifications

Figure E.2 presents the classification accuracy statistics that show the proportion of students correctly classified by their RIT scores as proficient (*On Track* or higher) or not proficient (lower than *On Track*) on the NSCAS tests.[2] For example, the MAP Growth reading grade 3 *On Track* 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 0.84 to 0.88 across both content areas, indicating that RIT scores have a high accuracy rate of identifying student proficiency on the NSCAS tests.

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

Figure E.2. Accuracy of MAP Growth Classifications



1. Introduction

1.1. Purpose of the Study

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

This report presents results from a linking study conducted by NWEA in September 2020 to statistically connect the scores of the Nebraska Student-Centered Assessment System (NSCAS) general summative grades 3–8 English language arts (ELA) and mathematics assessments with Rasch Unit (RIT) scores from the MAP Growth assessments taken during the Spring 2019 term. The linking study has been updated since the previous version to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025). 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 NSCAS 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 NSCAS 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 NSCAS tests
5. The probability of achieving grade-level proficiency on the NSCAS assessment based on MAP Growth RIT scores from fall, winter, and spring using the 2025 norms

1.2. Assessment Overview

The NSCAS grades 3–8 ELA and mathematics summative assessments are aligned to the Nebraska's College and Career Ready Standards. Each assessment has two 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: *Developing*, *On Track*, and *College and Career Ready (CCR) Benchmark*. The *On Track* 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 NSCAS assessments. 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 had valid scores on both the MAP Growth and NSCAS 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 NSCAS 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 Track* or higher) on the spring NSCAS 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 NSCAS 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., NSCAS). 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 NSCAS tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the NSCAS 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 NSCAS 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 (*On Track* or higher) or not proficient (lower than *On Track*). 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 NSCAS data for *On Track* 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
Specificity	TN / (TN + FP)	Proportion of students identified by MAP Growth as not proficient in those observed as such on the state test

Statistic	Description	Interpretation
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 *On Track* RIT cut does not guarantee that a student is proficient on the state test. Instead, it can be claimed that a student meeting the RIT cut score has a 50% chance of reaching proficiency (*On Track* 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 NSCAS test based on a student's RIT scores from fall, winter, and spring. The equation below was used to calculate the probability of a student achieving proficiency on the NSCAS 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 *On Track* cut score for spring, and
- SD is the conditional standard deviation of the expected growth, g.

The equation below was used to estimate the probability of a student achieving proficiency on the NSCAS 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 NSCAS assessments in Spring 2019 were included in the study sample. Data used in this study were collected from 186 districts and 588 schools in Nebraska. 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 NSCAS tests (NDE, 2019). Since the unweighted data are different from the general NSCAS 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 NSCAS 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	15,096	15,228	15,122	14,167	14,771	14,223
Race	Asian	3.0	2.9	3.0	2.9	2.8%	2.8
	Black	7.6	7.6	8.3	7.6	7.7%	8.0
	Hispanic	22.6	23.4	22.4	22.9	23.8%	23.0
	Multi-Race	4.0	3.8	3.4	3.7	3.4%	3.6
	Other	1.1	1.2	1.2	1.3	1.3%	1.3
	White	61.7	61.2	61.6	61.6	61.0%	61.4
Sex	Female	48.4	48.6	48.4	48.4	49.1%	48.6
	Male	51.6	51.4	51.6	51.6	50.9%	51.4
Achievement Level	*Developing*	45.6	43.6	52.9	52.4	53.6%	51.4
	On Track	38.5	38.5	32.3	30.5	36.3%	35.0
	CCR Benchmark	15.9	17.9	14.8	17.1	10.1%	13.6
Mathematics							
	Total N	15,062	15,077	15,215	14,288	14,122	13,829
Race	Asian	3.1	2.9	3.0	2.8	2.8	2.8
	Black	7.7	7.7	8.2	7.6	7.6	7.9
	Hispanic	22.6	23.4	22.6	22.6	23.5	22.7
	Multi-Race	4.1	3.8	3.4	3.7	3.1	3.2
	Other	1.1	1.3	1.1	1.3	1.3	1.2
	White	61.4	60.9	61.7	61.9	61.8	62.2
Sex	Female	48.4	48.7	48.6	48.5	49.1	48.9
	Male	51.6	51.3	51.4	51.5	50.9	51.1
Achievement Level	*Developing*	45.9	49.0	47.4	45.9	52.2	53.5
	On Track	44.8	42.5	42.3	44.6	40.0	36.6
	CCR Benchmark	9.3	8.4	10.3	9.5	7.9	10.0

Table 3.2. Spring 2019 NSCAS Student Population Demographics

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA							
	Total N	23,475	23,982	24,009	22,431	23,562	23,226
Race	Asian	2.9	2.7	2.8	2.7	2.7	2.6
	Black	6.6	6.7	7.0	6.7	6.9	6.9
	Hispanic	19.5	19.9	19.4	19.3	19.4	19.0
	Multi-Race	4.4	4.4	4.2	4.1	3.8	3.7
	Other	1.4	1.4	1.4	1.6	1.5	1.4
	White	65.2	64.8	65.1	65.7	65.8	66.4
Sex	Female	48.4	48.8	48.5	48.3	48.8	48.5
	Male	51.6	51.2	51.5	51.7	51.2	51.5
Achievement Level	*Developing*	43.6	41.7	51.9	50.7	51.1	49.5
	On Track	39.0	39.5	32.9	31.6	38.1	36.0
	CCR Benchmark	17.4	18.8	15.3	17.7	10.8	14.5
Mathematics							
	Total N	23,446	23,967	23,998	22,414	23,547	23,217
Race	Asian	2.9	2.7	2.8	2.7	2.7	2.6
	Black	6.6	6.6	7.0	6.8	6.9	6.9
	Hispanic	19.5	19.9	19.4	19.3	19.4	19.0
	Multi-Race	4.5	4.4	4.2	4.1	3.8	3.7
	Other	1.4	1.4	1.4	1.6	1.5	1.4
	White	65.2	64.9	65.2	65.7	65.8	66.4
Sex	Female	48.4	48.8	48.5	48.3	48.8	48.5
	Male	51.6	51.2	51.5	51.7	51.2	51.5
Achievement Level	*Developing*	44.9	48.3	45.8	44.8	51.0	52.5
	On Track	45.4	43.6	43.5	45.4	40.3	37.1
	CCR Benchmark	9.7	8.1	10.7	9.8	8.6	10.4

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	15,096	15,228	15,137	14,167	14,771	14,223
Race	Asian	2.9	2.7	2.8	2.7	2.7	2.6
	Black	6.6	6.6	7.0	6.7	6.9	6.9
	Hispanic	19.5	19.9	19.4	19.3	19.4	19.0
	Multi-Race	4.4	4.4	4.2	4.1	3.8	3.7
	Other	1.4	1.4	1.4	1.5	1.5	1.4
	White	65.2	64.8	65.1	65.7	65.8	66.4
Sex	Female	48.4	48.8	48.5	48.3	48.8	48.5
	Male	51.6	51.2	51.5	51.7	51.2	51.5
Achievement Level	*Developing*	43.6	41.7	51.8	50.7	51.1	49.5
	On Track	39.0	39.5	32.9	31.6	38.1	36.0
	CCR Benchmark	17.4	18.8	15.3	17.7	10.8	14.5
Mathematics							
	Total N	15,062	15,077	15,215	14,288	14,108	13,829
Race	Asian	2.9	2.7	2.8	2.7	2.7	2.6
	Black	6.6	6.6	7.0	6.8	6.9	6.9
	Hispanic	19.5	19.9	19.4	19.3	19.4	19.0
	Multi-Race	4.5	4.4	4.2	4.1	3.8	3.7
	Other	1.4	1.4	1.4	1.6	1.5	1.4
	White	65.2	64.9	65.2	65.7	65.8	66.4
Sex	Female	48.4	48.8	48.5	48.3	48.8	48.5
	Male	51.6	51.2	51.5	51.7	51.2	51.5
Achievement Level	*Developing*	44.9	48.3	45.8	44.8	51.1	52.5
	On Track	45.4	43.6	43.5	45.4	40.3	37.1
	CCR Benchmark	9.7	8.1	10.7	9.8	8.6	10.4

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and NSCAS test scores from Spring 2019, including the correlation coefficients (*r*) between them. The correlation coefficients between the scores range from 0.84 to 0.85 for ELA/reading and 0.87 to 0.89 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 NSCAS assessments.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	*r*	NSCAS				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
ELA/Reading										
3	15,096	0.85	2485.8	71.8	2253	2748	200.5	15.4	143	245
4	15,228	0.84	2514.1	72.9	2252	2778	207.6	15.0	143	251
5	15,137	0.84	2525.8	69.6	2282	2833	212.9	15.1	142	256
6	14,167	0.84	2538.3	68.1	2292	2777	216.8	14.8	148	258
7	14,771	0.84	2544.6	72.8	2301	2750	219.1	15.3	144	263
8	14,223	0.84	2557.7	68.9	2311	2853	222.2	15.9	150	275
Mathematics										
3	15,062	0.89	1195.5	71.3	1001	1470	204.7	13.8	127	257
4	15,077	0.87	1225.2	66.4	1012	1500	213.6	15.2	138	270
5	15,215	0.88	1244.4	70.0	1022	1510	222.2	16.9	140	283
6	14,288	0.88	1252.6	68.0	1032	1530	226.6	16.2	136	289
7	14,108	0.87	1252.0	64.2	1042	1540	230.6	18.0	143	294
8	13,829	0.87	1268.1	70.8	1052	1550	235.1	19.2	139	310

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

3.3. MAP Growth Cut Scores

Table 3.5 and Table 3.6 present the NSCAS 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 NSCAS 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 192 in the fall is likely to reach *On Track* performance on the NSCAS ELA test. A grade 3 student who obtained a MAP Growth reading RIT score of 197 in the winter is also likely to reach *On Track* performance on the NSCAS assessment. The winter cut score is higher than the fall cut score because growth is expected between fall and winter as students receive more instruction during the school year.

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

Table 3.5. MAP Growth Cut Scores—ELA/Reading

NSCAS ELA			
Grade	***Developing***	***On Track***	***CCR Benchmark***
3	2220–2476	**2477**–2556	2557–2840
4	2250–2499	**2500**–2581	2582–2850
5	2280–2530	**2531**–2598	2599–2860
6	2290–2542	**2543**–2602	2603–2870
7	2300–2555	**2556**–2629	2630–2880
8	2310–2560	**2561**–2631	2632–2890

MAP Growth Reading						
Grade	***Developing***		***On Track***		***CCR Benchmark***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall						
2	100–177	1–67	**178**–198	68–94	199–350	95–99
3	100–191	1–65	**192**–208	66–90	209–350	91–99
4	100–199	1–58	**200**–217	59–88	218–350	89–99
5	100–210	1–65	**211**–225	66–89	226–350	90–99
6	100–216	1–67	**217**–227	68–86	228–350	87–99
7	100–219	1–67	**220**–233	68–89	234–350	90–99
8	100–221	1–63	**222**–235	64–87	236–350	88–99
Winter						
2	100–184	1–68	**185**–204	69–94	205–350	95–99
3	100–196	1–64	**197**–213	65–90	214–350	91–99
4	100–203	1–59	**204**–219	60–87	220–350	88–99
5	100–213	1–66	**214**–226	67–87	227–350	88–99
6	100–217	1–66	**218**–228	67–85	229–350	86–99
7	100–220	1–66	**221**–234	67–89	235–350	90–99
8	100–222	1–63	**223**–236	64–87	237–350	88–99
Spring						
2	100–188	1–65	**189**–206	66–92	207–350	93–99
3	100–199	1–62	**200**–214	63–87	215–350	88–99
4	100–205	1–58	**206**–220	59–85	221–350	86–99
5	100–214	1–64	**215**–227	65–86	228–350	87–99
6	100–218	1–65	**219**–229	66–85	230–350	86–99
7	100–221	1–65	**222**–235	66–88	236–350	89–99
8	100–223	1–63	**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

NSCAS Mathematics			
Grade	***Developing***	***On Track***	***CCR Benchmark***
3	1000–1189	**1190**–1285	1286–1470
4	1010–1221	**1222**–1316	1317–1500
5	1020–1235	**1236**–1330	1331–1510
6	1030–1243	**1244**–1341	1342–1530
7	1040–1246	**1247**–1345	1346–1540
8	1050–1263	**1264**–1364	1365–1550

MAP Growth Mathematics						
Grade	***Developing***		***On Track***		***CCR Benchmark***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall						
2	100–180	1–69	**181**–206	70–98	207–350	99–99
3	100–190	1–66	**191**–211	67–95	212–350	96–99
4	100–205	1–70	**206**–225	71–96	226–350	97–99
5	100–214	1–70	**215**–234	71–95	235–350	96–99
6	100–218	1–70	**219**–239	71–96	240–350	97–99
7	100–226	1–71	**227**–250	72–97	251–350	98–99
8	100–233	1–73	**234**–255	74–96	256–350	97–99
Winter						
2	100–189	1–70	**190**–214	71–97	215–350	98–99
3	100–199	1–66	**200**–220	67–95	221–350	96–99
4	100–213	1–70	**214**–233	71–95	234–350	96–99
5	100–220	1–69	**221**–241	70–95	242–350	96–99
6	100–224	1–69	**225**–246	70–95	247–350	96–99
7	100–231	1–72	**232**–255	73–96	256–350	97–99
8	100–238	1–74	**239**–261	75–96	262–350	97–99
Spring						
2	100–194	1–67	**195**–217	68–96	218–350	97–99
3	100–205	1–65	**206**–225	66–93	226–350	94–99
4	100–218	1–68	**219**–238	69–94	239–350	95–99
5	100–224	1–68	**225**–245	69–94	246–350	95–99
6	100–228	1–67	**229**–250	68–94	251–350	95–99
7	100–233	1–69	**234**–257	70–95	258–350	96–99
8	100–240	1–72	**241**–262	73–94	263–350	95–99

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

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 NSCAS tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.84 to 0.86 for ELA/reading and 0.85 to 0.88 for mathematics. These values suggest that the RIT cut scores are good at classifying students as proficient (*On Track* or higher) or not proficient (lower than *On Track*) on the NSCAS assessment.

Although the results show that MAP Growth scores can be used to accurately classify students as likely to be proficient on the NSCAS tests, there is a notable limitation to how these results should be used and interpreted. NSCAS 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	NSCAS		FP	FN				
ELA/Reading										
3	15,096	200	2477	0.85	0.19	0.12	0.88	0.81	0.86	0.93
4	15,228	206	2500	0.86	0.21	0.10	0.90	0.79	0.86	0.93
5	15,137	215	2531	0.84	0.18	0.13	0.87	0.82	0.82	0.93
6	14,167	219	2543	0.85	0.17	0.14	0.86	0.83	0.83	0.93
7	14,771	222	2556	0.84	0.15	0.16	0.84	0.85	0.84	0.93
8	14,223	224	2561	0.85	0.17	0.14	0.86	0.83	0.84	0.93
Mathematics										
3	15,062	204	1190	0.86	0.19	0.09	0.91	0.81	0.85	0.94
4	15,077	214	1222	0.85	0.18	0.11	0.89	0.82	0.84	0.93
5	15,215	222	1236	0.87	0.15	0.11	0.89	0.85	0.87	0.95
6	14,288	226	1244	0.87	0.18	0.09	0.91	0.82	0.86	0.95
7	14,108	232	1247	0.86	0.16	0.12	0.88	0.84	0.84	0.94
8	13,829	237	1264	0.88	0.14	0.11	0.89	0.86	0.85	0.95

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 (*On Track* or higher) performance on the NSCAS test based on RIT scores from fall, winter, or spring. “Prob.” indicates the probability of obtaining proficient status on the NSCAS test in the spring. For example, a grade 3 student who obtained a MAP Growth reading score of 192 in the fall has a 50% chance of reaching proficiency on the NSCAS 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	
				On Track	Prob.		*On Track*	Prob.		*On Track*	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	
				On Track	Prob.		*On Track*	Prob.		*On Track*	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	206	166	No	<0.01	170	No	<0.01	173	No	<0.01
	10	206	173	No	<0.01	177	No	<0.01	179	No	<0.01
	15	206	177	No	0.01	181	No	0.01	184	No	<0.01
	20	206	181	No	0.02	184	No	0.01	187	No	<0.01
	25	206	184	No	0.05	187	No	0.03	190	No	<0.01
	30	206	186	No	0.06	190	No	0.07	193	No	<0.01
	35	206	189	No	0.12	193	No	0.1	195	No	<0.01
	40	206	191	No	0.17	195	No	0.16	198	No	0.01
	45	206	194	No	0.24	197	No	0.23	200	No	0.04
	50	206	196	No	0.32	199	No	0.31	202	No	0.13
	55	206	198	No	0.41	202	No	0.4	204	No	0.28
	60	206	200	Yes	0.5	204	Yes	0.5	207	Yes	0.61
	65	206	203	Yes	0.59	206	Yes	0.6	209	Yes	0.8
	70	206	205	Yes	0.68	209	Yes	0.73	211	Yes	0.92
	75	206	208	Yes	0.8	211	Yes	0.77	214	Yes	0.99
	80	206	211	Yes	0.86	214	Yes	0.87	217	Yes	>0.99
	85	206	215	Yes	0.94	218	Yes	0.95	220	Yes	>0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				On Track	Prob.		*On Track*	Prob.		*On Track*	Prob.
	90	206	219	Yes	0.97	222	Yes	0.98	225	Yes	>0.99
	95	206	226	Yes	>0.99	229	Yes	>0.99	231	Yes	>0.99
5	5	215	175	No	<0.01	178	No	<0.01	180	No	<0.01
	10	215	181	No	<0.01	184	No	<0.01	186	No	<0.01
	15	215	186	No	<0.01	189	No	<0.01	191	No	<0.01
	20	215	189	No	0.01	192	No	0.01	194	No	<0.01
	25	215	192	No	0.02	195	No	0.01	197	No	<0.01
	30	215	195	No	0.04	197	No	0.03	199	No	<0.01
	35	215	197	No	0.07	200	No	0.06	202	No	<0.01
	40	215	199	No	0.09	202	No	0.1	204	No	<0.01
	45	215	201	No	0.14	204	No	0.12	206	No	0.01
	50	215	204	No	0.23	206	No	0.18	208	No	0.02
	55	215	206	No	0.27	209	No	0.3	211	No	0.13
	60	215	208	No	0.36	211	No	0.35	213	No	0.28
	65	215	210	No	0.45	213	No	0.45	215	Yes	0.5
	70	215	213	Yes	0.55	215	Yes	0.55	217	Yes	0.72
	75	215	215	Yes	0.64	218	Yes	0.7	220	Yes	0.92
	80	215	218	Yes	0.77	221	Yes	0.82	223	Yes	0.99
	85	215	222	Yes	0.86	224	Yes	0.9	226	Yes	>0.99
	90	215	226	Yes	0.94	228	Yes	0.96	230	Yes	>0.99
	95	215	232	Yes	0.99	235	Yes	>0.99	237	Yes	>0.99
6	5	219	181	No	<0.01	183	No	<0.01	185	No	<0.01
	10	219	187	No	<0.01	189	No	<0.01	191	No	<0.01
	15	219	191	No	<0.01	193	No	<0.01	195	No	<0.01
	20	219	195	No	0.01	197	No	0.01	198	No	<0.01
	25	219	198	No	0.03	199	No	0.02	201	No	<0.01
	30	219	200	No	0.03	202	No	0.03	203	No	<0.01
	35	219	202	No	0.06	204	No	0.05	206	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				On Track	Prob.		*On Track*	Prob.		*On Track*	Prob.
	40	219	205	No	0.11	206	No	0.08	208	No	<0.01
	45	219	207	No	0.14	209	No	0.16	210	No	0.01
	50	219	209	No	0.2	211	No	0.19	212	No	0.02
	55	219	211	No	0.27	213	No	0.26	214	No	0.08
	60	219	213	No	0.36	215	No	0.35	216	No	0.2
	65	219	215	No	0.4	217	No	0.45	218	No	0.39
	70	219	218	Yes	0.55	219	Yes	0.55	221	Yes	0.72
	75	219	220	Yes	0.64	222	Yes	0.69	223	Yes	0.87
	80	219	223	Yes	0.77	225	Yes	0.81	226	Yes	0.98
	85	219	226	Yes	0.86	228	Yes	0.9	229	Yes	>0.99
	90	219	231	Yes	0.96	232	Yes	0.96	233	Yes	>0.99
	95	219	237	Yes	0.99	238	Yes	0.99	239	Yes	>0.99
7	5	222	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	222	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	222	195	No	0.01	196	No	<0.01	197	No	<0.01
	20	222	198	No	0.01	200	No	0.01	201	No	<0.01
	25	222	201	No	0.02	202	No	0.01	203	No	<0.01
	30	222	204	No	0.05	205	No	0.03	206	No	<0.01
	35	222	206	No	0.06	207	No	0.06	208	No	<0.01
	40	222	208	No	0.1	210	No	0.11	211	No	<0.01
	45	222	210	No	0.15	212	No	0.14	213	No	0.01
	50	222	212	No	0.21	214	No	0.2	215	No	0.02
	55	222	214	No	0.24	216	No	0.27	217	No	0.08
	60	222	217	No	0.36	218	No	0.36	219	No	0.2
	65	222	219	No	0.45	220	No	0.45	221	No	0.39
	70	222	221	Yes	0.55	223	Yes	0.6	224	Yes	0.72
	75	222	224	Yes	0.68	225	Yes	0.69	226	Yes	0.87
	80	222	226	Yes	0.76	228	Yes	0.8	229	Yes	0.98

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				On Track	Prob.		*On Track*	Prob.		*On Track*	Prob.
	85	222	230	Yes	0.88	231	Yes	0.89	232	Yes	>0.99
	90	222	234	Yes	0.95	235	Yes	0.96	237	Yes	>0.99
	95	222	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	
				On Track	Prob.		*On Track*	Prob.		*On Track*	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	
				On Track	Prob.		*On Track*	Prob.		*On Track*	Prob.
	45	206	182	No	0.13	191	No	0.13	197	No	0.01
	50	206	184	No	0.19	193	No	0.17	199	No	0.02
	55	206	186	No	0.26	195	No	0.24	201	No	0.08
	60	206	188	No	0.35	197	No	0.34	203	No	0.2
	65	206	190	No	0.45	199	No	0.45	206	Yes	0.5
	70	206	192	Yes	0.55	201	Yes	0.55	208	Yes	0.72
	75	206	195	Yes	0.7	204	Yes	0.71	211	Yes	0.92
	80	206	197	Yes	0.78	206	Yes	0.8	213	Yes	0.98
	85	206	200	Yes	0.87	210	Yes	0.89	217	Yes	>0.99
	90	206	204	Yes	0.95	214	Yes	0.96	221	Yes	>0.99
	95	206	210	Yes	0.99	220	Yes	>0.99	227	Yes	>0.99
	5	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	
				On Track	Prob.		*On Track*	Prob.		*On Track*	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	225	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	225	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	225	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	225	193	No	<0.01	197	No	<0.01	200	No	<0.01
	25	225	195	No	<0.01	200	No	<0.01	204	No	<0.01
	30	225	198	No	0.01	203	No	0.01	206	No	<0.01
	35	225	200	No	0.03	205	No	0.01	209	No	<0.01
	40	225	202	No	0.05	207	No	0.02	211	No	<0.01
	45	225	204	No	0.08	210	No	0.06	214	No	<0.01
	50	225	206	No	0.12	212	No	0.1	216	No	0.01
	55	225	208	No	0.19	214	No	0.16	218	No	0.02
	60	225	210	No	0.26	216	No	0.24	221	No	0.13
	65	225	212	No	0.35	219	No	0.39	223	No	0.28
	70	225	215	Yes	0.5	221	Yes	0.5	226	Yes	0.61
	75	225	217	Yes	0.6	224	Yes	0.67	228	Yes	0.8
	80	225	220	Yes	0.74	226	Yes	0.76	232	Yes	0.98
	85	225	223	Yes	0.85	230	Yes	0.9	235	Yes	>0.99
	90	225	227	Yes	0.94	234	Yes	0.97	240	Yes	>0.99
	95	225	233	Yes	0.99	240	Yes	>0.99	246	Yes	>0.99
6	5	229	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	229	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	229	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	229	197	No	<0.01	201	No	<0.01	205	No	<0.01
	25	229	199	No	0.01	204	No	<0.01	208	No	<0.01
	30	229	202	No	0.02	207	No	0.01	211	No	<0.01
	35	229	204	No	0.03	209	No	0.01	213	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				On Track	Prob.		*On Track*	Prob.		*On Track*	Prob.
	40	229	206	No	0.05	212	No	0.04	216	No	<0.01
	45	229	208	No	0.09	214	No	0.07	218	No	<0.01
	50	229	210	No	0.13	216	No	0.11	220	No	0.01
	55	229	212	No	0.19	218	No	0.17	223	No	0.04
	60	229	214	No	0.27	220	No	0.25	225	No	0.13
	65	229	216	No	0.36	223	No	0.39	227	No	0.28
	70	229	219	Yes	0.5	225	Yes	0.5	230	Yes	0.61
	75	229	221	Yes	0.64	228	Yes	0.66	233	Yes	0.87
	80	229	224	Yes	0.77	231	Yes	0.79	236	Yes	0.98
	85	229	227	Yes	0.87	234	Yes	0.89	239	Yes	>0.99
	90	229	231	Yes	0.95	238	Yes	0.96	244	Yes	>0.99
	95	229	237	Yes	0.99	245	Yes	>0.99	251	Yes	>0.99
7	5	234	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	234	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	234	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	234	203	No	<0.01	206	No	<0.01	208	No	<0.01
	25	234	206	No	0.01	209	No	<0.01	211	No	<0.01
	30	234	208	No	0.01	211	No	<0.01	214	No	<0.01
	35	234	211	No	0.03	214	No	0.01	216	No	<0.01
	40	234	213	No	0.04	216	No	0.02	219	No	<0.01
	45	234	215	No	0.07	219	No	0.06	221	No	<0.01
	50	234	217	No	0.11	221	No	0.1	224	No	<0.01
	55	234	219	No	0.17	223	No	0.15	226	No	0.01
	60	234	222	No	0.27	226	No	0.26	229	No	0.08
	65	234	224	No	0.36	228	No	0.35	231	No	0.2
	70	234	226	No	0.45	231	No	0.45	234	Yes	0.5
	75	234	229	Yes	0.6	233	Yes	0.55	237	Yes	0.8
	80	234	232	Yes	0.73	236	Yes	0.7	240	Yes	0.96

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

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