

Predicting Proficiency on the Grades 3–8 New York State Testing Program Based on NWEA MAP Growth Scores

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NWEA Psychometrics and Analytics

Linking Study Updates

Date	Description
2013-11	Conducted an initial linking study for grades 3–8 in mathematics and ELA/reading based on the observed MAP scores and Spring 2013 data.
2016-03	Updated the linking study from 2013 for grades 3–8 in mathematics and ELA/reading based on the 2015 norms and Spring 2013 data.
2020-02-20	Conducted a linking study for grades 3–8 in mathematics and ELA/reading based on the 2015 norms and Spring 2018 data.
2020-07-22	Updated the linking study from 2020 based on the 2020 norms and Spring 2018 data.
2025-03-10	Conducted a linking study for grades 3–8 in mathematics and ELA/reading and grades 5 and 8 in science based on the 2020 norms and Spring 2024 data. However, the grade 8 science was excluded from the linking study report due to an insufficient number of students.

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Table of Contents

Executive Summary	1
1. Introduction	4
1.1. Purpose of the Study	4
1.2. Assessment Overview.....	4
2. Methods	5
2.1. Data Collection.....	5
2.2. Post-Stratification Weighting	5
2.3. Descriptive Statistics	5
2.4. MAP Growth Cut Scores	5
2.5. Classification Accuracy	7
2.6. Proficiency Projections.....	7
3. Results.....	9
3.1. Study Sample	9
3.2. Descriptive Statistics	12
3.3. MAP Growth Cut Scores	13
3.4. Classification Accuracy	15
3.5. Proficiency Projections.....	18
References	32

List of Tables

Table E.1. MAP Growth RIT Cut Scores Linked to NYSTP Level 3 Cut Scores.....	2
Table 2.1. Description of Classification Accuracy Summary Statistics.....	7
Table 3.1. Linking Study Sample Demographics (Unweighted)	9
Table 3.2. Linking Study Population Demographics	10
Table 3.3. Linking Study Sample Demographics (Weighted).....	11
Table 3.4. Descriptive Statistics of Test Scores.....	12
Table 3.5. MAP Growth Cut Scores—Mathematics	14
Table 3.6. MAP Growth Cut Scores—ELA/Reading	14
Table 3.7. MAP Growth Cut Scores—Science	15
Table 3.8. Classification Accuracy Results.....	17
Table 3.9. Proficiency Projections Based on RIT Scores—Mathematics	19
Table 3.10. Proficiency Projections Based on RIT Scores—ELA/Reading	25
Table 3.11. Proficiency Projections Based on RIT Scores—Science.....	31

List of Figures

Figure E.1. Correlations Between MAP Growth and State Summative Assessment Scores.....	2
Figure E.2. Accuracy of MAP Growth Classifications	3

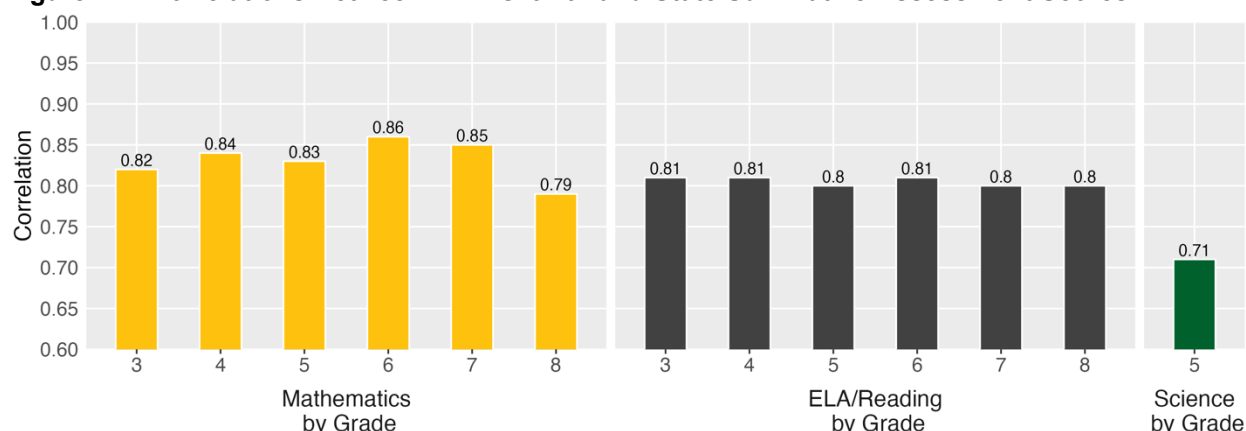
Executive Summary

Linking studies allow partners to use MAP® Growth™ Rasch Unit (RIT) scores throughout the year to predict students' performance levels on state summative assessments. This is accomplished through statistical analyses that produce RIT cut scores that correspond to state summative performance levels. A "cut score" is the minimum score a student must get on a test to be placed at a certain performance level. The linking study for the Grades 3–8 New York State Testing Program (NYSTP) assessments described in this report provides RIT cut scores for the fall, winter, and spring MAP Growth administrations that correspond to the Grades 3–8 NYSTP performance levels for each subject and grade. Educators can use the RIT cut scores to identify students at risk of not meeting state proficiency standards and provide targeted instruction to improve academic outcomes.

The linking study is based on test scores from students in grades 3–8 for mathematics and English language arts (ELA) and grade 5 for science who took both the MAP Growth and Grades 3–8 NYSTP assessments in Spring 2024. NWEA also gathered student records for grade 8 science; however, this grade for this subject was excluded from the final linking study report due to an insufficient number of students. In total, this study included 118,561 students from 484 schools within 13 districts in New York.

Prior to initiating the linking study, NWEA's content team confirmed that the content standards used to construct the MAP Growth interim assessment were aligned with those of the Grades 3–8 NYSTP summative assessments, thus warranting a connection. Further investigation into the relationship between MAP Growth and Grades 3–8 NYSTP involved calculating correlation coefficients to confirm the alignment between the MAP Growth scores and the summative test scores of Grades 3–8 NYSTP. A high positive correlation (e.g., ≥ 0.70) shows that students who perform well on one assessment also tend to perform well on the other, and vice versa, with 1.00 being a perfect positive correlation. The correlations between the MAP Growth and Grades 3–8 NYSTP test scores in all subjects and grades are higher than 0.70, indicating that MAP Growth is a good assessment for predicting performance on the Grades 3–8 NYSTP spring summative assessments.

Figure E.1. Correlations Between MAP Growth and State Summative Assessment Scores



The equipercentile linking method and the most recent MAP Growth norms (Thum & Kuhfeld, 2020) were then used to produce the RIT cut scores that correspond to performance levels on the Grades 3–8 NYSTP summative assessments for every subject and grade. While RIT cut scores were generated for every performance level on the Grades 3–8 NYSTP summative assessments, Table E.1 presents the Level 3 cut scores that indicate the minimum score a student must get to be considered proficient.

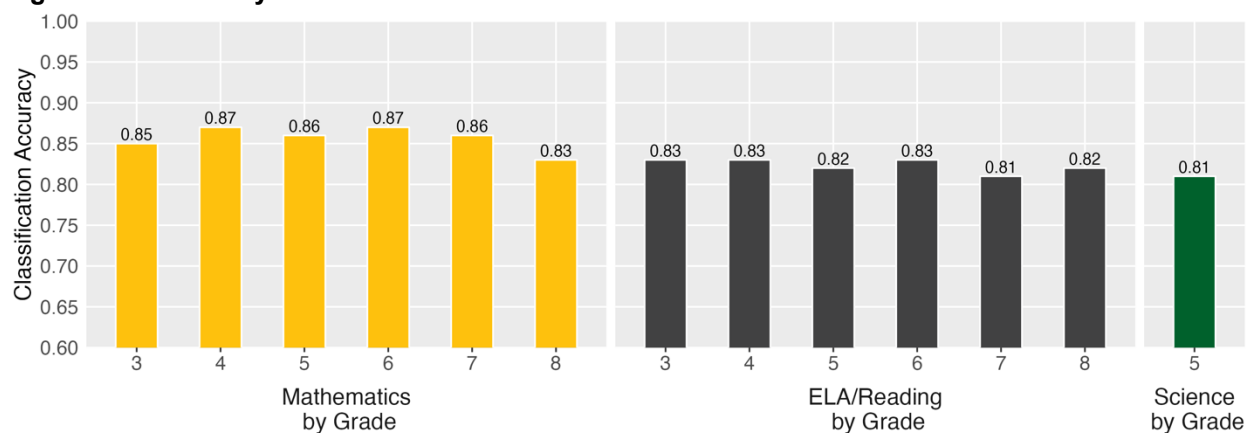
Table E.1. MAP Growth RIT Cut Scores Linked to NYSTP Level 3 Cut Scores

Assessment		Level 3 Cut Scores by Grade						
		2	3	4	5	6	7	8
Mathematics								
Grades 3–8 NYSTP Spring		–	450	450	450	450	450	450
MAP Growth Mathematics	Fall	171	185	194	206	213	216	222
	Winter	181	193	201	212	218	219	225
	Spring	186	198	205	216	221	222	227
ELA/Reading								
Grades 3–8 NYSTP Spring		–	450	450	450	450	450	450
MAP Growth Reading	Fall	176	190	198	207	211	213	214
	Winter	185	197	204	211	214	216	217
	Spring	189	200	206	213	216	217	218
Science								
Grades 3–8 NYSTP Spring		–	–	–	450	–	–	–
MAP Growth Science	Fall	–	–	–	205	–	–	–
	Winter	–	–	–	208	–	–	–
	Spring	–	–	–	210	–	–	–

Educators can use these cut scores to determine whether students are on track for proficiency on the state assessments. For example, the Level 3 cut score on the grade 3 NYSTP mathematics summative test is 450. A grade 3 student with a MAP Growth mathematics RIT score of 185 in the fall is likely to meet proficiency on the Grades 3–8 NYSTP mathematics summative test in the spring, whereas a grade 3 student with an RIT score lower than 185 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 Grades 3–8 NYSTP spring summative assessment by grade 3.

As further evidence that MAP Growth scores can be used to predict students' proficiency on the state tests, NWEA calculated classification accuracy statistics that show how well the RIT scores correctly classified, or predicted, students as proficient on the Grades 3–8 NYSTP summative tests. For example, the grade 3 MAP Growth mathematics Level 3 cut score has a 0.85 accuracy rate, meaning it accurately predicted student performance on the state test for 85% of the sample. A high statistic indicates high accuracy. Overall, MAP Growth scores have a high accuracy rate of identifying student proficiency on the Grades 3–8 NYSTP summative tests, as illustrated in Figure E.2.

Figure E.2. Accuracy of MAP Growth Classifications



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

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 state summative assessments at different times throughout the year. This allows educators and parents to determine if a student is on track in their learning to meet state standards by the end of the year or, given a student's learning profile, is on track to obtain rigorous, realistic growth in their content knowledge and skills.

This report presents findings from a linking study performed by NWEA aiming to statistically connect the Rasch Unit (RIT) scores obtained from the MAP Growth assessments with the results of the Grades 3–8 NYSTP spring summative assessments. These assessments cover mathematics and ELA/reading for grades 3–8 and science for grades 5 and 8.¹ However, due to insufficient student counts for grade 8 science, this subject at this grade level was excluded from the linking study report. The data utilized to generate this report are comprised of the Grades 3–8 NYSTP test scores collected during Spring 2024. MAP Growth cut scores are also included for grade 2 so that educators can track early learners' progress toward proficiency on the Grades 3–8 NYSTP summative test by grade 3. Specifically, this report presents the following results:

1. Student demographics
2. Descriptive statistics of test scores
3. MAP Growth cut scores from fall, winter, and spring that correspond to the performance levels on the Grades 3–8 NYSTP spring summative assessments
4. Classification accuracy statistics to determine the degree to which MAP Growth accurately predicts student proficiency status on the Grades 3–8 NYSTP summative tests
5. The probability of achieving grade-level proficiency on the Grades 3–8 NYSTP summative assessments based on MAP Growth RIT scores from fall, winter, and spring

1.2. Assessment Overview

The Grades 3–8 NYSTP tests are New York's state summative assessments aligned to the New York State Next Generation Learning Standards. Based on their test scores, students are placed into one of four performance levels: Level 1, Level 2, Level 3, and Level 4. The Level 3 cut score demarks the minimum level of performance considered to be proficient for accountability purposes.

MAP Growth tests are adaptive interim assessments aligned to state-specific content standards and administered in the fall, winter, and spring. Scores are reported on the RIT vertical scale with a range of 100 to 350. To aid the interpretation of scores, NWEA conducts norming studies of student and school performance on MAP Growth. Growth norms provide expected score gains across test administrations (e.g., the relative evaluation of a student's growth from fall to spring), which are used to conduct the linking studies. The most recent norms study was conducted in 2020 (Thum & Kuhfeld, 2020).

¹ This study only provides MAP Growth cut scores that predict proficiency on Grades 3–8 NYSTP tests for grades 3–8 in mathematics and ELA/reading and grade 5 in science. They represent a higher level of achievement than universal screening cut scores designed to identify students with the most severe learning difficulties who may need intensive intervention. MAP Growth universal screening cut scores for grades K–8 in reading and mathematics are available in a separate report (He & Meyer, 2021).

2. Methods

2.1. Data Collection

This linking study is based on data from the Spring 2024 administration of the MAP Growth and Grades 3–8 NYSTP summative assessments. Each student's state testing record was matched to their MAP Growth score based on the student's first and last names, date of birth, student ID, and other available identifying information. Only students who have scores on both the MAP Growth and Grades 3–8 NYSTP summative assessments in Spring 2024 were included in the study sample.

2.2. Post-Stratification Weighting

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

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

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

2.3. Descriptive Statistics

Descriptive statistics are provided to summarize the test scores for the MAP Growth and Grades 3–8 NYSTP summative assessments, including test score mean, standard deviation (SD), minimum, and maximum. The mean presents the average test scores across all students in the study sample, and the SD indicates the variability of test scores, revealing how students' scores are distributed around the average score, or mean. Correlation coefficients are also provided to answer the question "How well do the test scores from MAP Growth (that reference the RIT scale) correlate to the scores obtained from the Grades 3–8 NYSTP summative tests (that reference some other scale) in the same subject and grade?" The correlations were calculated as:

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

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

2.4. MAP Growth Cut Scores

MAP Growth cut scores that predict student achievement on the Grades 3–8 NYSTP summative assessments are reported for grades 3–8 in mathematics and ELA/reading and grade 5 in science, as well as for grade 2 in mathematics and ELA/reading so that educators can track

early learners' progress toward proficiency on the Grades 3–8 NYSTP summative tests by grade 3. Percentile ranks based on the most recent NWEA norms are also provided. These are useful for understanding how students' scores compare with peers nationwide and the relative rigor of a state's performance level designations for its summative assessment.

The equipercentile linking method (Kolen & Brennan, 2004) was used to identify the spring MAP Growth RIT scores for grades 3–8 in mathematics and ELA/reading, as well as for grade 5 in science, that correspond to the Grades 3–8 NYSTP spring summative performance level cut scores. The equipercentile linking procedure matches scores on the two scales that have the same percentile rank (i.e., the proportion of tests at or below each score). For example, let x represent a score on Test X (e.g., Grades 3–8 NYSTP summative tests). 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 Grades 3–8 NYSTP summative tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the Grades 3–8 NYSTP summative tests, and G^{-1} is the inverse of the percentile rank function for MAP Growth that indicates the score on MAP Growth corresponding to a given percentile. Polynomial loglinear pre-smoothing was applied to reduce irregularities of the score distributions and equipercentile linking curve.

The MAP Growth conditional growth norms provide students' expected score gains across terms, such as growth from fall to spring within the same grade or from spring of a lower grade to spring of the adjacent higher grade. This information was used to calculate the fall and winter cut scores for grades 3–8 in mathematics and ELA/reading, as well as for grade 5 in science. The equation below was used to determine the previous term's MAP Growth score needed to reach the spring cut score, considering the expected growth associated with the previous RIT score:

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

where:

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

The most recent MAP Growth conditional growth norms were also used to calculate the fall, winter, and spring cuts for grade 2. Students do not begin taking the Grades 3–8 NYSTP summative assessment until grade 3. Thus, cut scores for grade 2 were interpolated by obtaining longitudinal data for the grade 3 cohort as well as from the growth norms (which include growth scores across terms and grades). For each grade 3 student in the study sample, their MAP Growth data from the prior year when they were in grade 2, during 2022–2023, were obtained. In this way, the data came from the same cohort of students beginning when they were in grade 2 and continuing through grade 3. 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 of grade 2 to spring of grade 3). The calculation of fall and winter cuts for grade 2 followed the

same process as above for the other grades. For example, the growth score from fall to spring in grade 2 was used to calculate the fall cuts for this grade.

2.5. Classification Accuracy

The degree to which MAP Growth predicts student proficiency status on the Grades 3–8 NYSTP summative tests can be described using classification accuracy statistics based on the MAP Growth spring RIT cut scores. The results show the proportion of students correctly classified by their RIT scores as proficient or not proficient on the Grades 3–8 NYSTP spring summative tests. A summary of how well the interpolated grade 2 cuts predict grade 3 proficiency status is also reported in the classification accuracy statistics. Table 2.1 describes the classification accuracy statistics provided in this report (Pommerich et al., 2004).

Table 2.1. Description of Classification Accuracy Summary Statistics

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

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

2.6. Proficiency Projections

Given that all test scores contain measurement errors, reaching the 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 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 grade 2 cut scores), the MAP Growth conditional growth norms data were also used to calculate the probability of reaching proficiency on the Grades 3–8 NYSTP summative tests based on a student’s RIT scores from fall and winter:

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

where:

- Φ is the standard normal cumulative distribution function,
- $RIT_{previous}$ is the student's RIT score in fall or winter,
- g is the expected growth from the previous RIT (e.g., fall or winter) to the spring RIT,
- $RIT_{SpringCut}$ is the MAP Growth 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 Level 3 performance on the Grades 3–8 NYSTP summative tests based on their spring RIT score (RIT_{Spring}):

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

where SE is the standard error of measurement for MAP Growth.

3. Results

3.1. Study Sample

Only students who have scores on both the MAP Growth and Grades 3–8 NYSTP summative assessments in Spring 2024 were included in the study sample. The mathematics, ELA/reading, and science data used in this study were collected from 13 districts and 484 schools in New York. Table 3.1 presents the distributions of students by race, sex, and performance level in the original unweighted study sample. Table 3.2 presents the distributions of the target population of students who took the Grades 3–8 NYSTP tests. Since the original study sample is different from the target Grades 3–8 NYSTP population, post-stratification weights were applied. Table 3.3 presents the demographic distributions of the sample after weighting, which are almost identical to the Grades 3–8 NYSTP student population distributions.

Table 3.1. Linking Study Sample Demographics (Unweighted)

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade (%)					
		3	4	5	6	7	8
Mathematics							
Total N		18,719	18,940	18,507	19,120	19,165	8,784
Race	Asian/NH/PI	16.4	16.7	16.3	17.0	16.7	11.7
	Black or African American	14.1	14.6	15.5	17.0	17.8	19.0
	Hispanic or Latino	42.2	41.6	41.6	41.9	42.0	51.2
	Multiracial/AI/AN	4.3	4.1	4.0	4.2	3.6	2.5
	White	22.9	23.0	22.6	19.9	19.8	15.6
Sex	Female	49.3	49.7	48.6	49.4	49.4	46.9
	Male	50.7	50.3	51.4	50.6	50.6	53.1
Performance Level	Level 1	14.5	19.5	25.9	25.0	15.6	38.8
	Level 2	29.5	20.9	21.8	25.4	24.8	21.5
	Level 3	38.7	36.4	33.0	34.5	31.0	26.9
	Level 4	17.3	23.2	19.4	15.1	28.6	12.8
ELA/Reading							
Total N		16,781	17,326	17,136	19,066	19,257	17,747
Race	Asian/NH/PI	16.7	16.9	16.4	16.2	15.8	16.4
	Black or African American	15.3	15.5	16.6	16.7	17.5	17.3
	Hispanic or Latino	38.7	38.9	38.6	43.2	43.1	45.0
	Multiracial/AI/AN	4.7	4.4	4.3	4.1	3.6	3.1
	White	24.6	24.3	24.0	19.8	20.0	18.2
Sex	Female	49.3	49.9	49.0	49.7	49.8	48.4
	Male	50.7	50.1	51.0	50.3	50.2	51.6
Performance Level	Level 1	27.4	24.7	27.1	28.1	20.1	21.1
	Level 2	25.5	23.3	25.9	26.7	24.4	25.1
	Level 3	28.6	28.5	31.4	28.1	32.7	28.9
	Level 4	18.5	23.5	15.6	17.1	22.8	24.9
Science							
Total N		–	–	1,433	–	–	–

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade (%)					
		3	4	5	6	7	8
Race	Asian/NH/PI	—	—	17.9	—	—	—
	Black or African American	—	—	7.9	—	—	—
	Hispanic or Latino	—	—	43.1	—	—	—
	Multiracial/AI/AN	—	—	1.3	—	—	—
	White	—	—	29.7	—	—	—
Sex	Female	—	—	49.5	—	—	—
	Male	—	—	50.5	—	—	—
Performance Level	Level 1	—	—	21.1	—	—	—
	Level 2	—	—	48.9	—	—	—
	Level 3	—	—	26.8	—	—	—
	Level 4	—	—	3.1	—	—	—

Note. NH = Native Hawaiian; PI = Pacific Islander; AI = American Indian; AN = Alaska Native.

Table 3.2. Linking Study Population Demographics

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade (%)					
		3	4	5	6	7	8
Mathematics							
Total N		161,132	162,083	159,794	158,254	152,366	97,140
Race	Asian/NH/PI	11.3	11.5	11.4	12.1	11.5	8.4
	Black or African American	14.5	14.9	15.5	16.0	16.5	18.2
	Hispanic or Latino	30.1	30.0	30.4	30.6	30.9	33.5
	Multiracial/AI/AN	4.6	4.5	4.4	4.2	4.1	3.8
	White	39.5	39.1	38.4	37.1	37.0	36.2
Sex	Female	49.3	49.3	48.7	48.5	48.3	46.9
	Male	50.7	50.7	51.3	51.5	51.7	53.1
Performance Level	Level 1	13.9	19.7	28.2	24.6	17.8	38.8
	Level 2	32.2	22.2	22.9	24.9	25.1	20.5
	Level 3	39.5	38.1	32.4	35.9	30.7	28.0
	Level 4	14.4	19.9	16.5	14.6	26.4	12.7
ELA/Reading							
Total N		157,147	158,496	157,108	157,311	153,720	146,517
Race	Asian/NH/PI	11.0	11.3	11.2	11.7	11.2	11.4
	Black or African American	14.7	15.2	15.7	16.2	16.8	17.0
	Hispanic or Latino	29.3	29.2	29.6	29.9	30.2	31.1
	Multiracial/AI/AN	4.7	4.6	4.5	4.3	4.2	3.9
	White	40.2	39.7	39.0	37.8	37.6	36.6
Sex	Female	49.5	49.5	49.0	48.8	48.7	47.7
	Male	50.5	50.5	51.0	51.2	51.3	52.3
Performance Level	Level 1	29.6	26.8	29.1	29.0	24.0	22.8
	Level 2	27.8	26.2	27.2	27.3	26.5	25.3

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade (%)					
		3	4	5	6	7	8
	Level 3	29.1	29.0	30.6	28.3	31.5	28.4
	Level 4	13.5	18.0	13.1	15.4	18.0	23.5
Science							
Total N		—	—	157,335	—	—	—
Race	Asian/NH/PI	—	—	11.4	—	—	—
	Black or African American	—	—	15.6	—	—	—
	Hispanic or Latino	—	—	30.3	—	—	—
	Multiracial/AI/AN	—	—	4.4	—	—	—
	White	—	—	38.4	—	—	—
Sex	Female	—	—	48.7	—	—	—
	Male	—	—	51.3	—	—	—
Performance Level	Level 1	—	—	20.5	—	—	—
	Level 2	—	—	44.5	—	—	—
	Level 3	—	—	31.2	—	—	—
	Level 4	—	—	3.8	—	—	—

Note. NH = Native Hawaiian; PI = Pacific Islander; AI = American Indian; AN = Alaska Native.

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade (%)					
		3	4	5	6	7	8
Mathematics							
Total N		18,719	18,940	18,509	19,120	19,167	8,783
Race	Asian/NH/PI	11.3	11.5	11.4	12.1	11.5	8.4
	Black or African American	14.5	14.9	15.5	16.0	16.5	18.2
	Hispanic or Latino	30.1	30.0	30.4	30.6	30.9	33.5
	Multiracial/AI/AN	4.6	4.5	4.4	4.2	4.1	3.8
	White	39.5	39.0	38.4	37.1	37.0	36.2
Sex	Female	49.3	49.3	48.7	48.5	48.3	46.9
	Male	50.7	50.7	51.3	51.5	51.7	53.1
Performance Level	Level 1	13.9	19.7	28.2	24.6	17.8	38.8
	Level 2	32.2	22.2	22.9	24.9	25.1	20.5
	Level 3	39.5	38.1	32.4	35.9	30.7	28.0
	Level 4	14.4	19.9	16.5	14.7	26.4	12.7
ELA/Reading							
Total N		16,779	17,326	17,136	19,066	19,255	17,747
Race	Asian/NH/PI	11.0	11.3	11.1	11.7	11.2	11.3
	Black or African American	14.7	15.2	15.7	16.2	16.8	17.1
	Hispanic or Latino	29.3	29.2	29.6	29.9	30.2	31.1
	Multiracial/AI/AN	4.7	4.6	4.5	4.3	4.2	3.9
	White	40.2	39.7	39.0	37.8	37.6	36.6

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade (%)					
		3	4	5	6	7	8
Sex	Female	49.5	49.5	49.0	48.8	48.7	47.7
	Male	50.5	50.5	51.0	51.2	51.3	52.3
Performance Level	Level 1	29.6	26.8	29.1	29.0	24.0	22.8
	Level 2	27.9	26.2	27.2	27.3	26.5	25.3
	Level 3	29.1	29.0	30.6	28.3	31.5	28.4
	Level 4	13.5	18.0	13.1	15.4	18.0	23.5
Science							
Total N		—	—	1,433	—	—	—
Race	Asian/NH/PI	—	—	11.4	—	—	—
	Black or African American	—	—	15.5	—	—	—
	Hispanic or Latino	—	—	30.3	—	—	—
	Multiracial/AI/AN	—	—	4.4	—	—	—
	White	—	—	38.4	—	—	—
Sex	Female	—	—	48.7	—	—	—
	Male	—	—	51.3	—	—	—
Performance Level	Level 1	—	—	20.5	—	—	—
	Level 2	—	—	44.5	—	—	—
	Level 3	—	—	31.2	—	—	—
	Level 4	—	—	3.8	—	—	—

Note. NH = Native Hawaiian; PI = Pacific Islander; AI = American Indian; AN = Alaska Native.

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and Grades 3–8 NYSTP summative test scores from Spring 2024, including the correlation coefficients (r) between them. The coefficients between the scores range from 0.79 to 0.86 for mathematics, 0.80 to 0.81 for ELA/reading, and science has a coefficient of 0.71. These values indicate a high positive correlation among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the Grades 3–8 NYSTP spring summative assessments.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	<i>r</i>	Grades 3–8 NYSTP Summative				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
Mathematics										
3	18,719	0.82	451.8	26.8	381	505	197.5	15.8	124	282
4	18,940	0.84	456.7	29.7	376	512	206.9	16.8	125	287
5	18,509	0.83	450.8	28.0	387	521	213.9	18.1	129	290
6	19,120	0.86	451.5	27.0	390	517	219.4	18.3	149	306
7	19,167	0.85	457.6	29.3	381	523	224.0	20.3	149	294
8	8,783	0.79	445.5	27.3	385	521	221.9	19.4	152	296
ELA/Reading										

Grade	N	r	Grades 3–8 NYSTP Summative				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
3	16,779	0.81	443.9	22.4	383	493	193.3	17.8	136	248
4	17,326	0.81	445.1	23.0	371	493	200.7	17.9	139	255
5	17,136	0.80	443.9	23.3	380	504	206.9	17.7	140	264
6	19,066	0.81	443.4	22.6	375	498	210.0	17.4	151	259
7	19,255	0.80	447.8	22.8	370	502	212.4	18.0	151	265
8	17,747	0.80	448.9	24.7	371	500	215.2	18.4	150	269
Science										
5	1,433	0.71	440.5	19.6	401	503	202.7	13.9	153	245

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

3.3. MAP Growth Cut Scores

Table 3.5 to Table 3.7 present the Grades 3–8 NYSTP summative scale score ranges and the corresponding MAP Growth RIT cut scores and percentile ranges by content area and grade. Bold numbers indicate the cut scores considered to be at least proficient for accountability purposes. These tables can be used to predict a student's likely performance level based on the Grades 3–8 NYSTP spring summative assessments when MAP Growth is taken in the fall and winter. For example, a grade 3 student who obtained a MAP Growth mathematics RIT score of 185 in the fall is likely to achieve the Level 3 performance on the Grades 3–8 NYSTP summative mathematics test. A grade 3 student who obtained a MAP Growth mathematics RIT score of 193 in the winter is also likely to achieve the Level 3 performance on the Grades 3–8 NYSTP spring summative assessment in mathematics. 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 substantially from the default ones, a student's expected performance level could be different from the projections presented in this report. Partners are therefore encouraged to use the projected performance level in students' score reports, since these reflect the specific instructional weeks set by partners.

Table 3.5. MAP Growth Cut Scores—Mathematics

Grades 3–8 NYSTP Summative Mathematics								
Grade	Level 1		Level 2		Level 3		Level 4	
3	381–423		424–449		450 –486		487–505	
4	376–430		431–449		450 –485		486–514	
5	384–431		432–449		450 –482		483–521	
6	387–430		431–449		450 –484		485–517	
7	378–429		430–449		450 –476		477–523	
8	382–435		436–449		450 –481		482–521	
MAP Growth Mathematics								
Grade	Level 1		Level 2		Level 3		Level 4	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
Fall								
2	100–153	1–4	154–170	5–37	171 –191	38–89	192–350	90–99
3	100–168	1–6	169–184	7–39	185 –202	40–85	203–350	86–99
4	100–183	1–13	184–193	14–34	194 –209	35–76	210–350	77–99
5	100–194	1–17	195–205	18–41	206 –222	42–81	223–350	82–99
6	100–198	1–15	199–212	16–45	213 –231	46–85	232–350	86–99
7	100–201	1–14	202–215	15–39	216 –233	40–78	234–350	79–99
8	100–210	1–22	211–221	23–43	222 –240	44–79	241–350	80–99
Winter								
2	100–163	1–5	164–180	6–40	181 –199	41–88	200–350	89–99
3	100–177	1–8	178–192	9–40	193 –209	41–83	210–350	84–99
4	100–189	1–13	190–200	14–36	201 –216	37–76	217–350	77–99
5	100–199	1–17	200–211	18–42	212 –228	43–81	229–350	82–99
6	100–203	1–17	204–217	18–45	218 –236	46–84	237–350	85–99
7	100–204	1–13	205–218	14–38	219 –237	39–77	238–350	78–99
8	100–214	1–24	215–224	25–43	225 –243	44–78	244–350	79–99
Spring								
2	100–169	1–6	170–185	7–39	186 –204	40–87	205–350	88–99
3	100–182	1–9	183–197	10–40	198 –214	41–83	215–350	84–99
4	100–194	1–15	195–204	16–35	205 –220	36–74	221–350	75–99
5	100–203	1–18	204–215	19–42	216 –232	43–79	233–350	80–99
6	100–206	1–17	207–220	18–45	221 –239	46–83	240–350	84–99
7	100–207	1–15	208–221	16–39	222 –240	40–77	241–350	78–99
8	100–216	1–24	217–226	25–42	227 –245	43–77	246–350	78–99

Table 3.6. MAP Growth Cut Scores—ELA/Reading

Grades 3–8 NYSTP Summative ELA/Reading				
Grade	Level 1	Level 2	Level 3	Level 4
3	382–431	432–449	450 –473	474–493
4	371–430	431–449	450 –470	471–493
5	373–431	432–449	450 –473	474–504
6	368–430	431–449	450 –469	470–498
7	363–432	433–449	450 –471	472–502
8	363–429	430–449	450 –471	472–500

MAP Growth ELA/Reading								
Grade	Level 1		Level 2		Level 3		Level 4	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
Fall								
2	100–156	1–15	157–175	16–58	176 –194	59–92	195–350	93–99
3	100–173	1–21	174–189	22–57	190 –205	58–87	206–350	88–99
4	100–181	1–18	182–197	19–52	198 –212	53–82	213–350	83–99
5	100–191	1–21	192–206	22–55	207 –222	56–86	223–350	87–99
6	100–194	1–17	195–210	18–51	211 –225	52–82	226–350	83–99
7	100–196	1–14	197–212	15–46	213 –226	47–77	227–350	78–99
8	100–197	1–11	198–213	12–40	214 –227	41–71	228–350	72–99
Winter								
2	100–166	1–16	167–184	17–59	185 –201	60–91	202–350	92–99
3	100–181	1–22	182–196	23–57	197 –211	58–86	212–350	87–99
4	100–188	1–19	189–203	20–53	204 –216	54–80	217–350	81–99
5	100–197	1–23	198–210	24–54	211 –225	55–85	226–350	86–99
6	100–199	1–18	200–213	19–49	214 –227	50–80	228–350	81–99
7	100–200	1–15	201–215	16–46	216 –228	47–76	229–350	77–99
8	100–201	1–12	202–216	13–41	217 –229	42–71	230–350	72–99
Spring								
2	100–171	1–18	172–188	19–58	189 –205	59–90	206–350	91–99
3	100–185	1–24	186–199	25–56	200 –213	57–84	214–350	85–99
4	100–191	1–21	192–205	22–52	206 –218	53–80	219–350	81–99
5	100–199	1–24	200–212	25–54	213 –226	55–83	227–350	84–99
6	100–201	1–19	202–215	20–51	216 –228	52–79	229–350	80–99
7	100–202	1–16	203–216	17–46	217 –229	47–75	230–350	76–99
8	100–203	1–14	204–217	15–40	218 –230	41–70	231–350	71–99

Table 3.7. MAP Growth Cut Scores—Science

Grades 3–8 NYSTP Summative Science								
Grade	Level 1		Level 2		Level 3		Level 4	
5	398–423		424–449		450–479		480–516	
MAP Growth Science								
Grade	Level 1		Level 2		Level 3		Level 4	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
Fall								
5	100–182	1–6	183–204	7–65	205–223	66–97	224–350	98–99
Winter								
5	100–188	1–9	189–207	10–61	208–224	62–95	225–350	96–99
Spring								
5	100–191	1–11	192–209	12–61	210–225	62–94	226–350	95–99

3.4. Classification Accuracy

Table 3.8 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 Grades 3–8 NYSTP spring summative tests, providing insight into the

predictive validity of MAP Growth. The overall classification accuracy rate ranges from 0.74 to 0.87 for mathematics, 0.80 to 0.83 for ELA/reading, and is 0.81 for science. These values suggest that the RIT cut scores are good at classifying students as proficient or not proficient on the Grades 3–8 NYSTP summative assessments for most of the subjects and grades. For grade 2, the classification accuracy rate refers to how well the MAP Growth cuts can predict students' proficiency status on the Grades 3–8 NYSTP summative test in grade 3.

Although the results show that MAP Growth scores can be used to predict student proficiency on the Grades 3–8 NYSTP summative tests with relatively high accuracy, there is a notable limitation to how these results should be used and interpreted. The MAP Growth and Grades 3–8 NYSTP summative assessments are designed for different purposes and measure slightly different constructs even within the same content area. Therefore, scores on these tests cannot be assumed to be interchangeable. MAP Growth may not be used as a substitute for the state tests and vice versa.

Table 3.8. Classification Accuracy Results

Grade	N	Cut Score		Class. Accuracy	Rate		Sensitivity	Specificity	Precision	AUC
		MAP Growth	NYSTP		FP	FN				
Mathematics										
2	1,986	186	450	0.74	0.37	0.13	0.87	0.63	0.68	0.75
3	18,719	198	450	0.85	0.19	0.12	0.88	0.81	0.84	0.85
4	18,940	205	450	0.87	0.21	0.08	0.92	0.79	0.86	0.86
5	18,509	216	450	0.86	0.15	0.13	0.87	0.85	0.85	0.86
6	19,120	221	450	0.87	0.12	0.14	0.86	0.88	0.88	0.87
7	19,167	222	450	0.86	0.14	0.15	0.85	0.86	0.89	0.86
8	8,783	227	450	0.83	0.13	0.23	0.77	0.87	0.80	0.82
ELA/Reading										
2	2,047	189	450	0.80	0.15	0.28	0.72	0.85	0.72	0.78
3	16,779	200	450	0.83	0.13	0.23	0.77	0.87	0.82	0.82
4	17,326	206	450	0.83	0.13	0.22	0.78	0.87	0.84	0.82
5	17,136	213	450	0.82	0.14	0.22	0.78	0.86	0.81	0.82
6	19,066	216	450	0.83	0.13	0.23	0.77	0.87	0.82	0.82
7	19,255	217	450	0.81	0.15	0.23	0.77	0.85	0.84	0.81
8	17,747	218	450	0.82	0.16	0.19	0.81	0.84	0.84	0.82
Science										
5	1,433	210	450	0.81	0.15	0.28	0.72	0.85	0.73	0.79

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

3.5. Proficiency Projections

Table 3.9 to Table 3.11 present the estimated probability of achieving Level 3 and higher performance on the Grades 3–8 NYSTP summative tests based on RIT scores from fall, winter, or spring. Due to measurement error in all test scores, the Level 3 MAP Growth cuts do not guarantee that a student will reach proficiency on the Grades 3–8 NYSTP summative tests. Instead, they indicate a 50% chance that a student will reach a particular performance level. Therefore, these projections further elucidate the Level 3 cut scores by providing the likelihood of reaching proficiency on the Grades 3–8 NYSTP spring summative assessments at a given percentile throughout the year.

For example, the grade 3 fall Level 3 RIT cut score for mathematics is 185, which indicates a 50% chance of achieving proficiency in the spring, as shown in Table 3.9. Additionally, an educator can also use the table to estimate that a grade 3 student who obtained a MAP Growth mathematics score of 196 in the winter has a 74% probability of reaching Level 3 or higher on the Grades 3–8 NYSTP mathematics spring summative assessment.

Table 3.9. Proficiency Projections Based on RIT Scores—Mathematics

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
2	5	186	154	No	0.01	163	No	<0.01	167	No	<0.01
	10	186	158	No	0.03	167	No	<0.01	172	No	<0.01
	15	186	162	No	0.11	171	No	0.03	175	No	<0.01
	20	186	164	No	0.14	173	No	0.07	178	No	0.01
	25	186	166	No	0.22	175	No	0.15	180	No	0.04
	30	186	168	No	0.32	177	No	0.26	182	No	0.13
	35	186	170	No	0.44	179	No	0.42	184	No	0.28
	40	186	172	Yes	0.56	181	Yes	0.5	186	Yes	0.5
	45	186	173	Yes	0.62	182	Yes	0.58	188	Yes	0.72
	50	186	175	Yes	0.68	184	Yes	0.74	189	Yes	0.8
	55	186	177	Yes	0.78	186	Yes	0.85	191	Yes	0.92
	60	186	178	Yes	0.82	187	Yes	0.9	193	Yes	0.98
	65	186	180	Yes	0.89	189	Yes	0.95	195	Yes	0.99
	70	186	182	Yes	0.94	191	Yes	0.98	196	Yes	>0.99
	75	186	184	Yes	0.97	193	Yes	0.99	198	Yes	>0.99
	80	186	186	Yes	0.98	195	Yes	>0.99	201	Yes	>0.99
	85	186	188	Yes	0.99	198	Yes	>0.99	203	Yes	>0.99
	90	186	192	Yes	>0.99	201	Yes	>0.99	207	Yes	>0.99
	95	186	196	Yes	>0.99	205	Yes	>0.99	212	Yes	>0.99
3	5	198	166	No	<0.01	174	No	<0.01	178	No	<0.01
	10	198	171	No	0.02	179	No	<0.01	183	No	<0.01
	15	198	175	No	0.05	182	No	0.01	186	No	<0.01
	20	198	177	No	0.1	185	No	0.04	189	No	0.01
	25	198	179	No	0.17	187	No	0.1	192	No	0.04
	30	198	181	No	0.26	189	No	0.2	194	No	0.13

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.
	35	198	183	No	0.37	191	No	0.33	196	No	0.28
	40	198	185	Yes	0.5	193	Yes	0.5	198	Yes	0.5
	45	198	187	Yes	0.63	195	Yes	0.67	199	Yes	0.61
	50	198	188	Yes	0.69	196	Yes	0.74	201	Yes	0.8
	55	198	190	Yes	0.79	198	Yes	0.86	203	Yes	0.92
	60	198	192	Yes	0.83	200	Yes	0.93	205	Yes	0.98
	65	198	194	Yes	0.9	201	Yes	0.96	207	Yes	0.99
	70	198	196	Yes	0.95	203	Yes	0.98	208	Yes	>0.99
	75	198	198	Yes	0.97	205	Yes	0.99	211	Yes	>0.99
	80	198	200	Yes	0.99	208	Yes	>0.99	213	Yes	>0.99
	85	198	202	Yes	>0.99	210	Yes	>0.99	216	Yes	>0.99
	90	198	206	Yes	>0.99	214	Yes	>0.99	219	Yes	>0.99
	95	198	211	Yes	>0.99	219	Yes	>0.99	224	Yes	>0.99
4	5	205	176	No	<0.01	182	No	<0.01	185	No	<0.01
	10	205	181	No	0.02	187	No	<0.01	191	No	<0.01
	15	205	185	No	0.07	191	No	0.03	194	No	<0.01
	20	205	187	No	0.13	194	No	0.1	197	No	0.01
	25	205	190	No	0.26	196	No	0.14	200	No	0.08
	30	205	192	No	0.37	198	No	0.26	202	No	0.2
	35	205	194	Yes	0.5	200	No	0.42	205	Yes	0.5
	40	205	196	Yes	0.63	202	Yes	0.58	207	Yes	0.72
	45	205	198	Yes	0.74	204	Yes	0.74	209	Yes	0.87
	50	205	200	Yes	0.83	206	Yes	0.86	211	Yes	0.96
	55	205	201	Yes	0.87	208	Yes	0.93	212	Yes	0.98
	60	205	203	Yes	0.93	210	Yes	0.97	214	Yes	0.99
	65	205	205	Yes	0.96	212	Yes	0.99	217	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.
	70	205	207	Yes	0.98	214	Yes	>0.99	219	Yes	>0.99
	75	205	209	Yes	0.99	216	Yes	>0.99	221	Yes	>0.99
	80	205	212	Yes	>0.99	219	Yes	>0.99	224	Yes	>0.99
	85	205	214	Yes	>0.99	221	Yes	>0.99	227	Yes	>0.99
	90	205	218	Yes	>0.99	225	Yes	>0.99	230	Yes	>0.99
	95	205	223	Yes	>0.99	231	Yes	>0.99	236	Yes	>0.99
5	5	216	184	No	<0.01	189	No	<0.01	191	No	<0.01
	10	216	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	216	193	No	0.02	198	No	<0.01	201	No	<0.01
	20	216	196	No	0.05	201	No	0.01	205	No	<0.01
	25	216	199	No	0.11	204	No	0.05	207	No	0.01
	30	216	201	No	0.22	206	No	0.1	210	No	0.04
	35	216	203	No	0.32	209	No	0.26	212	No	0.13
	40	216	205	No	0.44	211	No	0.42	215	No	0.39
	45	216	207	Yes	0.56	213	Yes	0.58	217	Yes	0.61
	50	216	209	Yes	0.68	215	Yes	0.74	219	Yes	0.8
	55	216	211	Yes	0.78	217	Yes	0.85	221	Yes	0.92
	60	216	213	Yes	0.86	219	Yes	0.93	223	Yes	0.98
	65	216	215	Yes	0.92	221	Yes	0.97	225	Yes	0.99
	70	216	217	Yes	0.95	223	Yes	0.99	228	Yes	>0.99
	75	216	219	Yes	0.98	225	Yes	>0.99	230	Yes	>0.99
	80	216	222	Yes	0.99	228	Yes	>0.99	233	Yes	>0.99
	85	216	225	Yes	>0.99	231	Yes	>0.99	236	Yes	>0.99
	90	216	229	Yes	>0.99	235	Yes	>0.99	240	Yes	>0.99
	95	216	234	Yes	>0.99	241	Yes	>0.99	246	Yes	>0.99
6	5	221	188	No	<0.01	192	No	<0.01	194	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.
	10	221	194	No	<0.01	198	No	<0.01	200	No	<0.01
	15	221	198	No	0.01	202	No	<0.01	205	No	<0.01
	20	221	201	No	0.03	205	No	<0.01	208	No	<0.01
	25	221	204	No	0.08	208	No	0.02	211	No	<0.01
	30	221	206	No	0.14	211	No	0.07	214	No	0.02
	35	221	209	No	0.27	213	No	0.14	216	No	0.08
	40	221	211	No	0.38	215	No	0.26	218	No	0.2
	45	221	213	Yes	0.5	217	No	0.42	221	Yes	0.5
	50	221	215	Yes	0.62	220	Yes	0.66	223	Yes	0.72
	55	221	217	Yes	0.73	222	Yes	0.8	225	Yes	0.87
	60	221	219	Yes	0.83	224	Yes	0.9	227	Yes	0.96
	65	221	221	Yes	0.9	226	Yes	0.96	230	Yes	0.99
	70	221	223	Yes	0.94	228	Yes	0.98	232	Yes	>0.99
	75	221	226	Yes	0.98	231	Yes	>0.99	235	Yes	>0.99
	80	221	228	Yes	0.99	234	Yes	>0.99	238	Yes	>0.99
	85	221	231	Yes	>0.99	237	Yes	>0.99	241	Yes	>0.99
	90	221	235	Yes	>0.99	241	Yes	>0.99	245	Yes	>0.99
	95	221	241	Yes	>0.99	247	Yes	>0.99	252	Yes	>0.99
7	5	222	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	222	198	No	<0.01	201	No	<0.01	203	No	<0.01
	15	222	202	No	0.01	205	No	<0.01	207	No	<0.01
	20	222	206	No	0.05	209	No	0.02	211	No	<0.01
	25	222	208	No	0.1	212	No	0.07	214	No	0.01
	30	222	211	No	0.21	215	No	0.2	217	No	0.08
	35	222	213	No	0.31	217	No	0.33	220	No	0.28
	40	222	216	Yes	0.5	219	Yes	0.5	222	Yes	0.5

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	222	218	Yes	0.69	222	Yes	0.74	224	Yes	0.72
	50	222	220	Yes	0.79	224	Yes	0.86	227	Yes	0.92
	55	222	222	Yes	0.87	226	Yes	0.93	229	Yes	0.98
	60	222	225	Yes	0.95	229	Yes	0.98	231	Yes	0.99
	65	222	227	Yes	0.97	231	Yes	>0.99	234	Yes	>0.99
	70	222	229	Yes	0.99	233	Yes	>0.99	236	Yes	>0.99
	75	222	232	Yes	>0.99	236	Yes	>0.99	239	Yes	>0.99
	80	222	235	Yes	>0.99	239	Yes	>0.99	242	Yes	>0.99
	85	222	238	Yes	>0.99	243	Yes	>0.99	246	Yes	>0.99
	90	222	243	Yes	>0.99	247	Yes	>0.99	251	Yes	>0.99
	95	222	249	Yes	>0.99	254	Yes	>0.99	257	Yes	>0.99
8	5	227	194	No	<0.01	196	No	<0.01	197	No	<0.01
	10	227	201	No	<0.01	203	No	<0.01	205	No	<0.01
	15	227	205	No	0.01	208	No	<0.01	210	No	<0.01
	20	227	209	No	0.04	212	No	<0.01	214	No	<0.01
	25	227	212	No	0.1	215	No	0.02	217	No	<0.01
	30	227	215	No	0.19	218	No	0.07	220	No	0.02
	35	227	218	No	0.28	221	No	0.2	223	No	0.13
	40	227	220	No	0.39	223	No	0.34	225	No	0.28
	45	227	223	Yes	0.56	226	Yes	0.58	228	Yes	0.61
	50	227	225	Yes	0.67	228	Yes	0.73	230	Yes	0.8
	55	227	227	Yes	0.76	231	Yes	0.89	233	Yes	0.96
	60	227	230	Yes	0.88	233	Yes	0.95	235	Yes	0.99
	65	227	232	Yes	0.93	236	Yes	0.99	238	Yes	>0.99
	70	227	235	Yes	0.97	238	Yes	>0.99	241	Yes	>0.99
	75	227	238	Yes	0.99	241	Yes	>0.99	244	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.
	80	227	241	Yes	>0.99	244	Yes	>0.99	247	Yes	>0.99
	85	227	245	Yes	>0.99	248	Yes	>0.99	251	Yes	>0.99
	90	227	249	Yes	>0.99	253	Yes	>0.99	256	Yes	>0.99
	95	227	256	Yes	>0.99	260	Yes	>0.99	263	Yes	>0.99

Note. Prob. = Probability.

Table 3.10. Proficiency Projections 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	189	147	No	<0.01	156	No	<0.01	160	No	<0.01
	10	189	153	No	<0.01	162	No	<0.01	166	No	<0.01
	15	189	157	No	0.01	166	No	<0.01	170	No	<0.01
	20	189	160	No	0.03	169	No	<0.01	173	No	<0.01
	25	189	162	No	0.04	171	No	0.01	175	No	<0.01
	30	189	164	No	0.07	173	No	0.02	177	No	<0.01
	35	189	166	No	0.12	175	No	0.05	180	No	0.01
	40	189	168	No	0.18	177	No	0.1	182	No	0.02
	45	189	170	No	0.21	179	No	0.13	184	No	0.08
	50	189	172	No	0.3	181	No	0.23	186	No	0.2
	55	189	174	No	0.4	183	No	0.35	188	No	0.39
	60	189	176	Yes	0.5	185	Yes	0.5	189	Yes	0.5
	65	189	178	Yes	0.6	187	Yes	0.65	192	Yes	0.8
	70	189	180	Yes	0.65	189	Yes	0.77	194	Yes	0.92
	75	189	183	Yes	0.79	191	Yes	0.87	196	Yes	0.98
	80	189	185	Yes	0.85	194	Yes	0.95	199	Yes	>0.99
	85	189	188	Yes	0.91	197	Yes	0.99	202	Yes	>0.99
	90	189	192	Yes	0.97	200	Yes	>0.99	205	Yes	>0.99
	95	189	197	Yes	0.99	206	Yes	>0.99	211	Yes	>0.99
3	5	200	159	No	<0.01	167	No	<0.01	170	No	<0.01
	10	200	165	No	<0.01	173	No	<0.01	176	No	<0.01
	15	200	169	No	0.01	177	No	<0.01	180	No	<0.01
	20	200	173	No	0.02	180	No	<0.01	183	No	<0.01
	25	200	175	No	0.04	183	No	0.01	186	No	<0.01
	30	200	178	No	0.09	185	No	0.02	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.
	35	200	180	No	0.11	188	No	0.07	191	No	0.01
	40	200	182	No	0.17	190	No	0.09	193	No	0.02
	45	200	185	No	0.3	192	No	0.17	195	No	0.08
	50	200	187	No	0.34	194	No	0.29	197	No	0.2
	55	200	189	No	0.45	196	No	0.43	199	No	0.39
	60	200	191	Yes	0.55	198	Yes	0.57	201	Yes	0.61
	65	200	193	Yes	0.66	200	Yes	0.71	203	Yes	0.8
	70	200	195	Yes	0.7	202	Yes	0.83	206	Yes	0.96
	75	200	198	Yes	0.83	205	Yes	0.93	208	Yes	0.99
	80	200	201	Yes	0.91	207	Yes	0.97	211	Yes	>0.99
	85	200	204	Yes	0.95	211	Yes	0.99	214	Yes	>0.99
	90	200	208	Yes	0.98	215	Yes	>0.99	218	Yes	>0.99
	95	200	214	Yes	>0.99	220	Yes	>0.99	224	Yes	>0.99
4	5	206	169	No	<0.01	176	No	<0.01	178	No	<0.01
	10	206	175	No	<0.01	182	No	<0.01	184	No	<0.01
	15	206	179	No	0.01	186	No	<0.01	188	No	<0.01
	20	206	183	No	0.04	189	No	<0.01	191	No	<0.01
	25	206	185	No	0.06	192	No	0.02	194	No	<0.01
	30	206	188	No	0.11	194	No	0.04	196	No	<0.01
	35	206	190	No	0.17	196	No	0.09	199	No	0.02
	40	206	192	No	0.24	198	No	0.17	201	No	0.08
	45	206	195	No	0.34	200	No	0.22	203	No	0.2
	50	206	197	No	0.44	202	No	0.35	205	No	0.39
	55	206	199	Yes	0.56	205	Yes	0.58	207	Yes	0.61
	60	206	201	Yes	0.66	207	Yes	0.72	209	Yes	0.8
	65	206	203	Yes	0.71	209	Yes	0.83	211	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.
	70	206	205	Yes	0.8	211	Yes	0.91	213	Yes	0.98
	75	206	208	Yes	0.89	213	Yes	0.96	216	Yes	>0.99
	80	206	211	Yes	0.94	216	Yes	0.99	219	Yes	>0.99
	85	206	214	Yes	0.97	219	Yes	>0.99	222	Yes	>0.99
	90	206	218	Yes	0.99	223	Yes	>0.99	226	Yes	>0.99
	95	206	224	Yes	>0.99	229	Yes	>0.99	232	Yes	>0.99
5	5	213	178	No	<0.01	183	No	<0.01	185	No	<0.01
	10	213	183	No	<0.01	189	No	<0.01	191	No	<0.01
	15	213	187	No	0.01	193	No	<0.01	194	No	<0.01
	20	213	191	No	0.03	196	No	<0.01	198	No	<0.01
	25	213	193	No	0.05	198	No	0.01	200	No	<0.01
	30	213	196	No	0.11	201	No	0.03	203	No	<0.01
	35	213	198	No	0.13	203	No	0.06	205	No	0.01
	40	213	200	No	0.2	205	No	0.13	207	No	0.04
	45	213	202	No	0.29	207	No	0.22	209	No	0.13
	50	213	204	No	0.39	209	No	0.35	211	No	0.28
	55	213	207	Yes	0.5	211	Yes	0.5	213	Yes	0.5
	60	213	209	Yes	0.61	213	Yes	0.65	215	Yes	0.72
	65	213	211	Yes	0.71	215	Yes	0.78	217	Yes	0.87
	70	213	213	Yes	0.76	217	Yes	0.83	219	Yes	0.96
	75	213	216	Yes	0.87	220	Yes	0.94	222	Yes	0.99
	80	213	218	Yes	0.92	222	Yes	0.97	224	Yes	>0.99
	85	213	221	Yes	0.95	226	Yes	>0.99	228	Yes	>0.99
	90	213	225	Yes	0.99	229	Yes	>0.99	231	Yes	>0.99
	95	213	231	Yes	>0.99	235	Yes	>0.99	237	Yes	>0.99
6	5	216	183	No	<0.01	188	No	<0.01	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.
	10	216	189	No	<0.01	193	No	<0.01	195	No	<0.01
	15	216	193	No	0.01	197	No	<0.01	199	No	<0.01
	20	216	196	No	0.03	200	No	<0.01	202	No	<0.01
	25	216	199	No	0.08	203	No	0.02	205	No	<0.01
	30	216	202	No	0.13	205	No	0.04	207	No	0.01
	35	216	204	No	0.19	208	No	0.12	209	No	0.02
	40	216	206	No	0.28	210	No	0.22	211	No	0.08
	45	216	208	No	0.33	212	No	0.35	213	No	0.2
	50	216	210	No	0.44	214	Yes	0.5	215	No	0.39
	55	216	212	Yes	0.56	216	Yes	0.58	217	Yes	0.61
	60	216	214	Yes	0.67	218	Yes	0.72	219	Yes	0.8
	65	216	217	Yes	0.76	220	Yes	0.83	222	Yes	0.96
	70	216	219	Yes	0.84	222	Yes	0.91	224	Yes	0.99
	75	216	221	Yes	0.9	225	Yes	0.97	226	Yes	>0.99
	80	216	224	Yes	0.94	227	Yes	0.99	229	Yes	>0.99
	85	216	227	Yes	0.98	230	Yes	>0.99	232	Yes	>0.99
	90	216	231	Yes	>0.99	234	Yes	>0.99	236	Yes	>0.99
	95	216	237	Yes	>0.99	240	Yes	>0.99	242	Yes	>0.99
7	5	217	187	No	<0.01	190	No	<0.01	191	No	<0.01
	10	217	193	No	<0.01	196	No	<0.01	197	No	<0.01
	15	217	197	No	0.02	200	No	<0.01	201	No	<0.01
	20	217	200	No	0.06	203	No	0.01	205	No	<0.01
	25	217	203	No	0.1	206	No	0.04	207	No	<0.01
	30	217	206	No	0.19	209	No	0.12	210	No	0.02
	35	217	208	No	0.28	211	No	0.22	212	No	0.08
	40	217	210	No	0.39	213	No	0.28	214	No	0.2

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	217	212	No	0.44	215	No	0.42	216	No	0.39
	50	217	214	Yes	0.56	217	Yes	0.58	218	Yes	0.61
	55	217	216	Yes	0.67	219	Yes	0.72	220	Yes	0.8
	60	217	218	Yes	0.76	221	Yes	0.83	223	Yes	0.96
	65	217	221	Yes	0.84	223	Yes	0.91	225	Yes	0.99
	70	217	223	Yes	0.9	226	Yes	0.97	227	Yes	>0.99
	75	217	225	Yes	0.94	228	Yes	0.99	229	Yes	>0.99
	80	217	228	Yes	0.98	231	Yes	>0.99	232	Yes	>0.99
	85	217	231	Yes	0.99	234	Yes	>0.99	235	Yes	>0.99
	90	217	235	Yes	>0.99	238	Yes	>0.99	239	Yes	>0.99
	95	217	241	Yes	>0.99	244	Yes	>0.99	245	Yes	>0.99
8	5	218	190	No	<0.01	193	No	<0.01	194	No	<0.01
	10	218	196	No	0.01	199	No	<0.01	200	No	<0.01
	15	218	200	No	0.05	203	No	0.01	204	No	<0.01
	20	218	204	No	0.11	206	No	0.03	207	No	<0.01
	25	218	207	No	0.2	209	No	0.09	210	No	0.01
	30	218	209	No	0.29	212	No	0.17	213	No	0.08
	35	218	211	No	0.34	214	No	0.28	215	No	0.2
	40	218	214	Yes	0.5	216	No	0.42	217	No	0.39
	45	218	216	Yes	0.61	218	Yes	0.58	220	Yes	0.72
	50	218	218	Yes	0.71	221	Yes	0.78	222	Yes	0.87
	55	218	220	Yes	0.76	223	Yes	0.87	224	Yes	0.96
	60	218	222	Yes	0.83	225	Yes	0.94	226	Yes	0.99
	65	218	225	Yes	0.92	227	Yes	0.97	228	Yes	>0.99
	70	218	227	Yes	0.95	229	Yes	0.99	231	Yes	>0.99
	75	218	230	Yes	0.97	232	Yes	>0.99	233	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.
	80	218	232	Yes	0.99	235	Yes	>0.99	236	Yes	>0.99
	85	218	236	Yes	>0.99	238	Yes	>0.99	239	Yes	>0.99
	90	218	240	Yes	>0.99	242	Yes	>0.99	243	Yes	>0.99
	95	218	246	Yes	>0.99	248	Yes	>0.99	249	Yes	>0.99

Note. Prob. = Probability.

Table 3.11. Proficiency Projections Based on RIT Scores—Science

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Level 3	Prob.		Level 3	Prob.		Level 3	Prob.
5	5	210	181	No	<0.01	185	No	<0.01	186	No	<0.01
	10	210	185	No	0.01	189	No	<0.01	191	No	<0.01
	15	210	188	No	0.02	192	No	<0.01	194	No	<0.01
	20	210	190	No	0.04	194	No	0.01	196	No	<0.01
	25	210	192	No	0.06	196	No	0.02	198	No	<0.01
	30	210	194	No	0.1	198	No	0.04	200	No	<0.01
	35	210	196	No	0.16	200	No	0.08	202	No	0.01
	40	210	197	No	0.16	201	No	0.1	203	No	0.02
	45	210	199	No	0.24	203	No	0.18	205	No	0.08
	50	210	200	No	0.28	204	No	0.24	206	No	0.13
	55	210	202	No	0.39	206	No	0.36	208	No	0.28
	60	210	203	No	0.44	207	No	0.43	209	No	0.39
	65	210	205	Yes	0.5	209	Yes	0.5	211	Yes	0.61
	70	210	206	Yes	0.56	210	Yes	0.57	213	Yes	0.8
	75	210	208	Yes	0.67	212	Yes	0.7	214	Yes	0.87
	80	210	210	Yes	0.72	214	Yes	0.82	216	Yes	0.96
	85	210	212	Yes	0.81	216	Yes	0.9	219	Yes	0.99
	90	210	215	Yes	0.9	219	Yes	0.96	222	Yes	>0.99
	95	210	220	Yes	0.97	224	Yes	>0.99	226	Yes	>0.99

Note. Prob. = Probability.

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