Predicting Proficiency on the State of Texas Assessments of Academic Readiness (STAAR) Based on NWEA MAP Growth Scores

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NWEA Psychometrics and Analytics

nwea

Linking Study Updates

Date	Description
2020-07-23	Initial linking study conducted for the State of Texas Assessments of Academic Readiness (STAAR) in grades 3–8 for mathematics and English language arts (ELA) and in grades 5 and 8 for science using Spring 2017 data
2024-07-01	Updated the linking study for the State of Texas Assessments of Academic Readiness (STAAR) in grades 3–8 for mathematics and English language arts (ELA) and in grades 5 and 8 for science using Spring 2023 data due to the state assessment redesign

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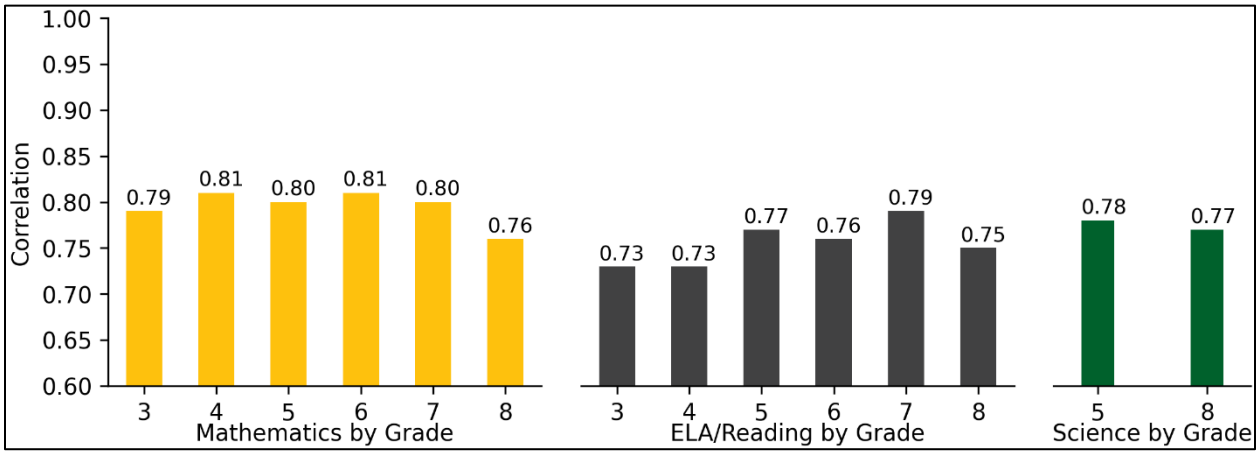
Executive Summary

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 State of Texas Assessments of Academic Readiness (STAAR) described in this report provides RIT cut scores for the fall, winter, and spring MAP Growth administrations that correspond to the STAAR 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 for STAAR is based on test scores from students in grades 3–8 for mathematics and ELA and grades 5 and 8 for science who took both the MAP Growth and STAAR assessments in Spring 2023. In total, this study included 47,303 students from 278 schools within 75 districts in Texas.

Prior to initiating the linking analyses, NWEA confirmed that the content standards used to construct the MAP Growth interim assessment were aligned with those of the STAAR, thus warranting a connection. Further investigation into the relationship between MAP Growth and STAAR involved calculating correlation coefficients to illustrate the association between the MAP Growth scores and the summative test scores of STAAR. 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 STAAR 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 STAAR spring summative assessments.

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



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

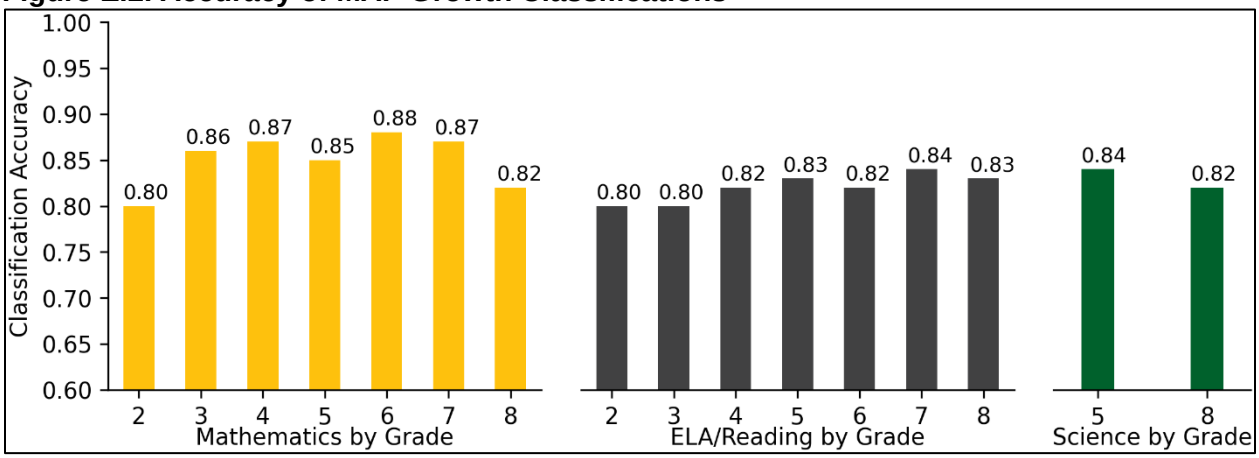
Table E.1. MAP Growth RIT *Meets Grade Level* Cut Scores in State Summative Assessments

Assessment		*Meets Grade Level* Cut Scores by Grade						
		2	3	4	5	6	7	8
Mathematics								
STAAR Spring		–	1471	1557	1634	1745	1793	1859
MAP Growth	Fall	181	194	204	210	219	221	224
	Winter	190	201	211	216	224	225	227
	Spring	195	206	215	220	227	228	229
ELA/Reading								
STAAR Spring		–	1467	1552	1592	1634	1669	1698
MAP Growth	Fall	173	186	200	204	210	212	214
	Winter	182	194	206	209	213	215	217
	Spring	186	197	208	211	215	216	218
Science								
STAAR Spring		–	–	4000	–	–	4000	–
MAP Growth	Fall	–	–	214	–	–	218	–
	Winter	–	–	217	–	–	220	–
	Spring	–	–	218	–	–	221	–

Educators can use these cut scores to determine whether students are on track for proficiency on the state assessments. For example, the *Meets Grade Level* cut score on the grade 3 STAAR mathematics summative test is 1471. A grade 3 student with a MAP Growth mathematics RIT score of 194 in the fall is likely to meet proficiency on the STAAR mathematics summative test in the spring, whereas a grade 3 student with an RIT score lower than 194 in the fall is in jeopardy of not meeting proficiency. MAP Growth cut scores for grade 2 are also provided so that educators can track early learners' progress toward proficiency on the STAAR 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 *Meets Grade Level* on the STAAR summative tests. For example, the grade 3 MAP Growth mathematics *Meets Grade Level* cut score has a 0.86 accuracy rate, meaning it accurately predicted student achievement on the state test for 86% of the sample. A high statistic indicates high accuracy. Overall, MAP Growth scores have a high accuracy rate of identifying student proficiency on the STAAR 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 outlines 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 State of Texas Assessments of Academic Readiness (STAAR) spring summative assessments. These assessments cover mathematics and English language arts (ELA) for grades 3–8, and science for grades 5 and 8.[1] The data utilized to generate this report are comprised of the STAAR test scores collected during Spring 2023. MAP Growth cut scores are also included for grade 2 so that educators can track early learners' progress toward proficiency on the STAAR 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 STAAR spring summative assessments
4. Classification accuracy statistics to determine the degree to which MAP Growth accurately predicts student proficiency status on the STAAR summative tests
5. The probability of achieving grade-level proficiency on the STAAR summative assessments based on MAP Growth RIT scores from fall, winter, and spring

1.2. Assessment Overview

The STAAR tests are Texas's state summative assessments aligned to the Texas Essential Knowledge and Skills (TEKS) curriculum. Based on their test scores, students are placed into one of four performance levels: *Did Not Meet Grade Level*, *Approaches Grade Level*, *Meets Grade Level*, and *Masters Grade Level*. The *Meets Grade Level* cut score demarks the minimum level of achievement considered to be proficient for accountability purposes.

MAP Growth tests are adaptive interim assessments aligned to state-specific content standards and administered in the fall, winter, and spring. Scores are reported on the RIT vertical scale with a range of 100 to 350. 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 norm study was conducted in 2020 (Thum & Kuhfeld, 2020).

[1] This study only provides MAP Growth cut scores that predict proficiency on STAAR tests for grades 3–8 in mathematics and ELA, and grades 5 and 8 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 2023 administration of the MAP Growth and STAAR summative assessments. Each student's state testing record was matched to their MAP Growth score based on the student's state identifier. Only students who have scores on both the MAP Growth and STAAR summative assessments in Spring 2023 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 STAAR 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 STAAR summative tests that reference some other scale in the same subject?" The correlations were calculated as:

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

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

2.4. MAP Growth Cut Scores

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

learners' progress toward proficiency on the STAAR summative test by grade 3. Percentile ranks based on the 2020 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, as well as grades 5 and 8 in science, that correspond to the STAAR 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 the Test X (e.g., STAAR summative). 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 STAAR summative tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the STAAR 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, and grades 5 and 8 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 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 STAAR summative assessment until grade 3. Thus, cut scores for grade 2 were interpolated by obtaining longitudinal data for the grade 3 cohort. For each grade 3 student in the study sample, their MAP Growth data from the prior year when they were in grade 2, during 2021–2022, 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 grade 3.

2.5. Classification Accuracy

The degree to which MAP Growth predicts student proficiency status on the STAAR 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 STAAR 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) / (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 *Meets Grade Level* 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 STAAR summative tests based on a student’s RIT scores from fall and winter:

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

where:

- Φ is the standard normal cumulative distribution function,
- $RIT_{previous}$ is the student's RIT score in fall or winter (or in spring for grade 2),
- g is the expected growth from the previous RIT (e.g., fall or winter) to the spring RIT,
- $RIT_{SpringCut}$ is the MAP Growth *Proficient* cut score for spring (for grade 2, this is the grade 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 *Meets Grade Level* performance on the STAAR summative tests based on their spring RIT score (RIT_{Spring}):

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

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

3. Results

3.1. Study Sample

Only students who have scores on both the MAP Growth and STAAR summative assessments in Spring 2023 were included in the study sample. The mathematics and ELA data used in this study were collected from 75 districts and 278 schools in Texas. 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 STAAR tests. Since the original study sample is different from the target STAAR population, post-stratification weights were applied to improve its representativeness.
Table 3.3 presents the demographic distributions of the sample after weighting, which are almost identical to the STAAR student population distributions. The analyses in this study were therefore conducted using the weighted sample.

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-Count	**7,584**	**7,431**	**7,505**	**7,354**	**7,308**	**5,434**
Race	AI/AN	0.6	0.4	0.3	0.4	0.5	0.5
	Asian	7.2	6.8	6.5	5.0	5.3	3.4
	Black	23.1	24.1	24.3	24.2	24.3	27.3
	Hispanic	32.0	32.0	31.1	32.5	32.4	37.1
	NH/PI	0.2	0.2	0.2	0.1	0.1	0.1
	Other	5.0	4.5	4.7	4.9	4.4	4.0
	White	32.0	32.1	32.9	33.0	33.0	27.6
Sex	Female	49.5	50.0	49.3	49.0	48.7	48.4
	Male	50.5	50.0	50.7	51.0	51.3	51.6
Performance Level	*Did Not Meet*	24.5	27.2	17.9	21.6	29.6	24.8
	Approaches	28.0	22.6	30.0	34.8	24.7	35.7
	Meets	27.0	26.0	29.7	26.9	29.4	30.7
	Masters	20.5	24.2	22.4	16.7	16.3	8.8
ELA/Reading							
	Total N-Count	**8,037**	**6,871**	**6,735**	**6,870**	**7,100**	**5,971**
Race	AI/AN	0.5	0.4	0.3	0.3	0.5	0.5
	Asian	7.7	6.4	5.6	5.1	5.6	5.4
	Black	21.8	24.3	24.9	24.0	24.2	26.2
	Hispanic	33.5	30.2	28.6	30.6	30.9	26.5
	NH/PI	0.2	0.2	0.3	0.1	0.1	0.2
	Other	5.1	4.6	4.8	5.0	4.5	4.5
	White	31.2	34.0	35.4	34.7	34.1	36.7
Sex	Female	48.9	49.9	49.8	48.8	48.6	49.0
	Male	51.1	50.1	50.2	51.2	51.4	51.0
Performance Level	*Did Not Meet*	20.1	16.8	16.5	21.0	20.0	13.1
	Approaches	25.4	27.0	23.1	25.4	23.8	26.0
	Meets	30.2	27.8	29.8	31.0	29.5	31.2
	Masters	24.3	28.4	30.6	22.6	26.7	29.8

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade					
		3	4	5	6	7	8
Science							
	Total N-Count	–	–	**7,138**	–	–	**7,093**
Race	AI/AN	–	–	0.3	–	–	0.5
	Asian	–	–	7.0	–	–	5.4
	Black	–	–	24.6	–	–	23.9
	Hispanic	–	–	31.3	–	–	35.3
	NH/PI	–	–	0.2	–	–	0.1
	Other	–	–	4.6	–	–	4.3
	White	–	–	31.9	–	–	30.6
Sex	Female	–	–	49.4	–	–	48.6
	Male	–	–	50.6	–	–	51.4
Performance Level	*Did Not Meet*	–	–	33.0	–	–	27.5
	Approaches	–	–	30.1	–	–	28.1
	Meets	–	–	20.8	–	–	29.7
	Masters	–	–	16.1	–	–	14.6

Note. AI/AN - American Indian or Alaska Native, NH/PI - Native Hawaiian or Other Pacific Islander, Other - Two or More Races or Not Specified.

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-Count	**370,006**	**373,988**	**378,663**	**384,766**	**331,698**	**364,110**
Race	AI/AN	0.3	0.3	0.3	0.3	0.3	0.3
	Asian	5.7	5.7	5.6	5.0	4.3	4.5
	Black	12.9	12.8	12.8	12.8	13.1	13.5
	Hispanic	50.0	50.8	51.2	52.8	54.6	53.3
	NH/PI	0.2	0.2	0.2	0.2	0.2	0.2
	Other	3.9	3.7	3.5	3.5	3.2	3.3
	White	27.1	26.6	26.5	25.5	24.4	24.9
Sex	Female	49.1	49.3	49.1	49.2	49.1	48.6
	Male	50.9	50.7	50.9	50.8	50.9	51.4
Performance Level	*Did Not Meet*	28.0	30.0	21.0	26.0	39.0	26.0
	Approaches	29.0	23.0	29.0	37.0	26.0	30.0
	Meets	24.0	25.0	29.0	22.0	25.0	28.0
	Masters	19.0	22.0	21.0	15.0	10.0	16.0
ELA/Reading							
	Total N-Count	**356,558**	**365,035**	**372,677**	**391,376**	**400,416**	**410,472**
Race	AI/AN	0.3	0.3	0.3	0.3	0.3	0.3
	Asian	5.9	6.0	5.8	5.4	5.2	5.0
	Black	13.4	13.1	13.0	12.6	12.5	12.7
	Hispanic	48.1	49.4	50.1	52.5	52.8	53.3
	NH/PI	0.2	0.2	0.2	0.2	0.2	0.2
	Other	4.0	3.7	3.6	3.4	3.3	3.2
	White	28.1	27.4	27.0	25.6	25.7	25.3

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade					
		3	4	5	6	7	8
Sex	Female	49.0	49.1	49.0	49.1	48.9	48.8
	Male	51.0	50.9	51.0	50.9	51.1	51.2
Performance Level	*Did Not Meet*	23.0	22.0	19.0	25.0	23.0	18.0
	Approaches	27.0	31.0	25.0	25.0	25.0	26.0
	Meets	30.0	26.0	28.0	29.0	26.0	29.0
	Masters	20.0	21.0	28.0	21.0	26.0	27.0
Science							
	Total N-Count	–	–	**378,742**	–	–	**407,847**
Race	AI/AN	–	–	0.3	–	–	0.3
	Asian	–	–	5.7	–	–	4.9
	Black	–	–	12.8	–	–	12.8
	Hispanic	–	–	51.0	–	–	53.1
	NH/PI	–	–	0.2	–	–	0.2
	Other	–	–	3.5	–	–	3.2
	White	–	–	26.6	–	–	25.4
Sex	Female	–	–	49.1	–	–	48.9
	Male	–	–	50.9	–	–	51.1
Performance Level	*Did Not Meet*	–	–	36.0	–	–	28.0
	Approaches	–	–	30.0	–	–	27.0
	Meets	–	–	19.0	–	–	29.0
	Masters	–	–	15.0	–	–	16.0

Note. AI/AN - American Indian or Alaska Native, NH/PI - Native Hawaiian or Other Pacific Islander, Other - Two or More Races or Not Specified.

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-Count	**7,584**	**7,431**	**7,505**	**7,354**	**7,308**	**5,434**
Race	AI/AN	0.3	0.3	0.3	0.3	0.3	0.3
	Asian	5.7	5.7	5.6	5.0	4.3	4.5
	Black	12.9	12.8	12.8	12.8	13.1	13.5
	Hispanic	50.0	50.8	51.2	52.8	54.6	53.3
	NH/PI	0.2	0.2	0.2	0.2	0.2	0.2
	Other	3.9	3.6	3.5	3.4	3.2	3.3
	White	27.1	26.6	26.5	25.5	24.4	24.9
Sex	Female	49.1	49.3	49.1	49.2	49.1	48.6
	Male	50.9	50.7	50.9	50.8	50.9	51.4
Performance Level	*Did Not Meet*	28.0	30.0	21.0	26.0	39.0	26.0
	Approaches	29.0	23.0	29.0	37.0	26.0	30.0
	Meets	24.0	25.0	29.0	22.0	25.0	28.0
	Masters	19.0	22.0	21.0	15.0	10.0	16.0
ELA/Reading							
	Total N-Count	**8,037**	**6,871**	**6,735**	**6,870**	**7,100**	**5,971**
Race	AI/AN	0.3	0.3	0.3	0.3	0.3	0.3
	Asian	5.9	5.9	5.8	5.4	5.2	5.0
	Black	13.4	13.1	13.0	12.6	12.5	12.7

Demographic Subgroup		Percentage of Students in Each Subgroup by Grade					
		3	**4**	**5**	**6**	**7**	**8**
	Hispanic	48.1	49.4	50.1	52.5	52.8	53.3
	NH/PI	0.2	0.2	0.2	0.2	0.2	0.2
	Other	4.0	3.7	3.6	3.4	3.3	3.2
	White	28.1	27.4	27.0	25.6	25.7	25.3
Sex	Female	49.0	49.1	49.0	49.1	48.9	48.8
	Male	51.0	50.9	51.0	50.9	51.1	51.2
Performance Level	*Did Not Meet*	23.0	22.0	19.0	25.0	23.0	18.0
	Approaches	27.0	31.0	25.0	25.0	25.0	26.0
	Meets	30.0	26.0	28.0	29.0	26.0	29.0
	Masters	20.0	21.0	28.0	21.0	26.0	27.0
Science							
	Total N-Count	–	–	**7,138**	–	–	**7,093**
Race	AI/AN	–	–	0.3	–	–	0.3
	Asian	–	–	5.7	–	–	4.9
	Black	–	–	12.8	–	–	12.8
	Hispanic	–	–	51.0	–	–	53.1
	NH/PI	–	–	0.2	–	–	0.2
	Other	–	–	3.5	–	–	3.2
	White	–	–	26.6	–	–	25.4
Sex	Female	–	–	49.1	–	–	48.9
	Male	–	–	50.9	–	–	51.1
Performance Level	*Did Not Meet*	–	–	36.0	–	–	28.0
	Approaches	–	–	30.0	–	–	27.0
	Meets	–	–	19.0	–	–	29.0
	Masters	–	–	15.0	–	–	16.0

Note. AI/AN - American Indian or Alaska Native, NH/PI - Native Hawaiian or Other Pacific Islander, Other - Two or More Races or Not Specified.

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and STAAR summative test scores from Spring 2023, including the correlation coefficients (*r*) between them. The coefficients between the scores range from 0.76 to 0.81 for mathematics, 0.73 to 0.79 for ELA/reading, and 0.77 to 0.78 for science. 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 STAAR spring summative assessments.

Table 3.4. Descriptive Statistics of Test Scores

Content Area	Grade	N	r	STAAR				MAP Growth			
				Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
Mathematics	3	7,584	0.79	1456.3	152.2	860	2070	202.0	15.0	131	257
	4	7,431	0.81	1558.0	165.4	910	2130	211.7	16.1	136	271
	5	7,505	0.80	1644.1	160.9	1000	2200	218.2	16.4	144	269
	6	7,354	0.81	1717.7	154.2	1070	2350	221.2	16.3	159	271
	7	7,308	0.80	1764.6	149.5	1150	2400	222.1	17.0	159	289
	8	5,434	0.76	1848.0	141.6	1240	2470	224.8	16.5	162	273
ELA/Reading	3	8,037	0.73	1465.0	159.6	720	2120	194.9	16.9	141	245
	4	6,871	0.73	1543.2	156.6	820	2210	204.5	16.2	146	255
	5	6,735	0.77	1607.8	152.4	830	2198	211.3	16.2	144	268
	6	6,870	0.76	1632.8	144.4	880	2280	212.9	16.4	153	260
	7	7,100	0.79	1673.5	148.8	890	2290	214.8	17.3	152	271
	8	5,971	0.75	1714.7	142.0	980	2360	219.0	16.3	155	266
Science	5	7,138	0.78	3756.4	548.0	1140	6200	211.4	12.9	151	261
	8	7,093	0.77	3934.5	655.9	1000	6800	217.3	14.6	155	276

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

3.3. MAP Growth Cut Scores

Table 3.5 to 3.7 present the STAAR 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 *Meets Grade Level* for accountability purposes. These tables can be used to predict a student's likely performance level on the STAAR 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 194 in the fall is likely to achieve *Meets Grade Level* on the STAAR spring summative mathematics test. A grade 3 student who obtained a MAP Growth mathematics RIT score of 201 in the winter is also likely to achieve *Meets Grade Level* on the STAAR spring summative assessment. The winter cut score is higher than the fall cut score because growth is expected between fall and winter as students receive more instruction during the school year.

Within this report, the cut scores for fall and winter are derived from the spring cuts and the typical growth scores from fall to spring or winter to spring. The typical growth scores are based on the default instructional weeks most encountered for each term (Weeks 4, 20, and 32 for fall, winter, and spring, respectively). Since instructional weeks often vary by district, the cut scores in this report may differ slightly from the MAP Growth score reports that reflect instructional weeks set by partners. If the actual instructional weeks deviate 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

STAAR Mathematics				
Grade	***Did Not Meet***	***Approaches***	***Meets***	***Masters***
3	860-1359	1360-1470	**1471**-1599	1600-2070
4	910-1461	1462-1556	**1557**-1689	1690-2130
5	1000-1514	1515-1633	**1634**-1775	1776-2200
6	1070-1615	1616-1744	**1745**-1888	1889-2350
7	1150-1702	1703-1792	**1793**-1964	1965-2400
8	1240-1753	1754-1858	**1859**-2008	2009-2470

MAP Growth Mathematics (Fall)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
2	100-167	1-28	168-180	29-67	**181**-192	68-91	193-350	92-99
3	100-181	1-31	182-193	32-65	**194**-203	66-87	204-350	88-99
4	100-193	1-34	194-203	35-61	**204**-213	62-83	214-350	84-99
5	100-197	1-22	198-209	23-51	**210**-221	52-79	222-350	80-99
6	100-203	1-24	204-218	25-59	**219**-231	60-85	232-350	86-99
7	100-210	1-29	211-220	30-51	**221**-236	52-82	237-350	83-99
8	100-211	1-24	212-223	25-47	**224**-239	48-78	240-350	79-99

MAP Growth Mathematics (Winter)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
2	100-176	1-28	177-189	29-67	**190**-200	68-89	201-350	90-99
3	100-189	1-31	190-200	32-63	**201**-211	64-87	212-350	88-99
4	100-200	1-36	201-210	37-62	**211**-220	63-83	221-350	84-99
5	100-202	1-22	203-215	23-52	**216**-227	53-79	228-350	80-99
6	100-208	1-25	209-223	26-59	**224**-236	60-84	237-350	85-99
7	100-213	1-28	214-224	29-51	**225**-240	52-82	241-350	83-99
8	100-215	1-26	216-226	27-47	**227**-242	48-77	243-350	78-99

MAP Growth Mathematics (Spring)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
2	100-182	1-31	183-194	32-65	**195**-205	66-88	206-350	89-99
3	100-194	1-32	195-205	33-63	**206**-215	64-84	216-350	85-99
4	100-204	1-35	205-214	36-60	**215**-224	61-81	225-350	82-99
5	100-206	1-23	207-219	24-52	**220**-231	53-78	232-350	79-99
6	100-211	1-26	212-226	27-58	**227**-239	59-83	240-350	84-99
7	100-216	1-29	217-227	30-52	**228**-243	53-81	244-350	82-99
8	100-217	1-26	218-228	27-46	**229**-244	47-76	245-350	77-99

Table 3.6. MAP Growth Cut Scores—ELA/Reading

STAAR ELA								
Grade	***Did Not Meet***		***Approaches***		***Meets***		***Masters***	
3	720-1344		1345-1466		**1467**-1595		1596-2120	
4	820-1413		1414-1551		**1552**-1662		1663-2210	
5	830-1474		1475-1591		**1592**-1699		1700-2220	
6	880-1534		1535-1633		**1634**-1748		1749-2280	
7	890-1563		1564-1668		**1669**-1770		1771-2290	
8	980-1591		1592-1697		**1698**-1802		1803-2360	
MAP Growth Reading (Fall)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
2	100-153	1-10	154-172	11-51	**173**-188	52-85	189-350	86-99
3	100-169	1-15	170-185	16-48	**186**-199	49-78	200-350	79-99
4	100-182	1-20	183-199	21-57	**200**-210	58-79	211-350	80-99
5	100-190	1-20	191-203	21-48	**204**-215	49-75	216-350	76-99
6	100-196	1-20	197-209	21-49	**210**-221	50-75	222-350	76-99
7	100-198	1-17	199-211	18-44	**212**-223	45-71	224-350	72-99
8	100-199	1-14	200-213	15-40	**214**-225	41-67	226-350	68-99
MAP Growth Reading (Winter)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
2	100-163	1-12	164-181	13-51	**182**-195	52-83	196-350	84-99
3	100-178	1-17	179-193	18-49	**194**-205	50-76	206-350	77-99
4	100-189	1-21	190-205	22-58	**206**-214	59-77	215-350	78-99
5	100-195	1-19	196-208	20-49	**209**-219	50-74	220-350	75-99
6	100-201	1-22	202-212	23-47	**213**-224	48-75	225-350	76-99
7	100-202	1-18	203-214	19-44	**215**-225	45-70	226-350	71-99
8	100-203	1-15	204-216	16-41	**217**-227	42-66	228-350	67-99
MAP Growth Reading (Spring)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
2	100-168	1-13	169-185	14-50	**186**-199	51-81	200-350	82-99
3	100-182	1-18	183-196	19-49	**197**-208	50-76	209-350	77-99
4	100-192	1-22	193-207	23-57	**208**-216	58-76	217-350	77-99
5	100-198	1-22	199-210	23-49	**211**-220	50-72	221-350	73-99
6	100-203	1-23	204-214	24-48	**215**-225	49-74	226-350	75-99
7	100-204	1-20	205-215	21-43	**216**-226	44-69	227-350	70-99
8	100-205	1-17	206-217	18-40	**218**-228	41-66	229-350	67-99

Table 3.7. MAP Growth Cut Scores—Science

STAAR Science								
Grade	***Did Not Meet***		***Approaches***		***Meets***		***Masters***	
5	1140-3549		3550-3999		**4000**-4379		4380-6200	
8	1000-3549		3550-3999		**4000**-4618		4619-6800	
MAP Growth Science (Fall)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
5	100-201	1-55	202-213	56-87	**214**-221	88-96	222-350	97-99
8	100-205	1-38	206-217	39-73	**218**-229	74-93	230-350	94-99
MAP Growth Science (Winter)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
5	100-205	1-55	206-216	56-85	**217**-223	86-94	224-350	95-99
8	100-208	1-39	209-219	40-71	**220**-230	72-91	231-350	92-99
MAP Growth Science (Spring)								
	Did Not Meet		***Approaches***		***Meets***		***Masters***	
Grade	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
5	100-207	1-55	208-217	56-83	**218**-224	84-93	225-350	94-99
8	100-209	1-39	210-220	40-70	**221**-231	71-90	232-350	91-99

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 STAAR spring summative tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rate ranges from 0.80 to 0.88 for mathematics, 0.80 to 0.84 for ELA/reading, and 0.82 to 0.84 for science. These values suggest that the RIT cut scores are good at classifying students as *Meets Grade Level* or not *Meets Grade Level* on the STAAR summative assessments for all 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 STAAR summative test in grade 3.

Although the results show that MAP Growth scores can be used to predict student proficiency on the STAAR summative tests with relatively high accuracy, there is a notable limitation to how these results should be used and interpreted. The MAP Growth and STAAR 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. Accu.	Rate		Sensitivity	Specificity	Precision	AUC
		MAP	State		FP	FN				
Mathematics										
2	3,868	195	1471	0.80	0.12	0.30	0.70	0.88	0.84	0.79
3	7,584	206	1471	0.86	0.17	0.11	0.89	0.83	0.80	0.86
4	7,431	215	1557	0.87	0.15	0.11	0.89	0.85	0.84	0.87
5	7,505	220	1634	0.85	0.19	0.11	0.89	0.81	0.82	0.85
6	7,354	227	1745	0.88	0.13	0.11	0.89	0.87	0.80	0.88
7	7,308	228	1793	0.87	0.13	0.12	0.88	0.87	0.78	0.87
8	5,434	229	1859	0.82	0.15	0.21	0.79	0.85	0.80	0.82
ELA/Reading										
2	2,432	186	1467	0.80	0.24	0.16	0.84	0.76	0.83	0.80
3	8,037	197	1467	0.80	0.21	0.19	0.81	0.79	0.80	0.80
4	6,871	208	1552	0.82	0.18	0.18	0.82	0.82	0.80	0.82
5	6,735	211	1592	0.83	0.22	0.13	0.87	0.78	0.83	0.82
6	6,870	215	1634	0.82	0.20	0.15	0.85	0.80	0.81	0.82
7	7,100	216	1669	0.84	0.20	0.12	0.88	0.80	0.83	0.84
8	5,971	218	1698	0.83	0.25	0.12	0.88	0.75	0.82	0.82
Science										
5	7,138	218	4000	0.84	0.12	0.23	0.77	0.88	0.77	0.83
8	7,093	221	4000	0.82	0.16	0.21	0.79	0.84	0.80	0.81

Note. Class. Accu. = 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 *Meets Grade Level* on the STAAR summative tests based on RIT scores from fall, winter, or spring. Due to measurement errors in all test scores, the *Meets Grade Level* MAP Growth cuts do not guarantee that a student will reach this proficiency on the STAAR summative tests. Instead, they indicate a 50% chance that a student will reach *Meets Grade Level*. Therefore, these projections further elucidate the *Meets Grade Level* cut scores by providing the likelihood of reaching proficiency on the STAAR spring summative assessments at a given percentile throughout the year. For example, the grade 3 fall *Meets Grade Level* RIT cut score for mathematics is 194, which indicates a 50% chance of achieving proficiency in the spring, as shown in Table 3.9. Additionally, an educator can use the table to estimate that a grade 3 student who obtained a MAP Growth mathematics score of 205 in the winter has an 80% probability ("Prob.") of reaching *Meets Grade Level* or higher on the STAAR mathematics spring summative assessment.

Table 3.9. Proficiency Projections Based on RIT Scores—Mathematics

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
2	5	186	147	No	<0.01	156	No	<0.01	160	No	<0.01
	10	186	153	No	0.01	162	No	<0.01	166	No	<0.01
	15	186	157	No	0.03	166	No	<0.01	170	No	<0.01
	20	186	160	No	0.07	169	No	0.01	173	No	<0.01
	25	186	162	No	0.09	171	No	0.03	175	No	<0.01
	30	186	164	No	0.15	173	No	0.07	177	No	0.01
	35	186	166	No	0.21	175	No	0.13	180	No	0.04
	40	186	168	No	0.3	177	No	0.23	182	No	0.13
	45	186	170	No	0.35	179	No	0.29	184	No	0.28
	50	186	172	No	0.45	181	No	0.43	186	Yes	0.5
	55	186	174	Yes	0.55	183	Yes	0.57	188	Yes	0.72
	60	186	176	Yes	0.65	185	Yes	0.71	189	Yes	0.8
	65	186	178	Yes	0.75	187	Yes	0.83	192	Yes	0.96
	70	186	180	Yes	0.79	189	Yes	0.9	194	Yes	0.99
	75	186	183	Yes	0.88	191	Yes	0.95	196	Yes	>0.99
	80	186	185	Yes	0.93	194	Yes	0.99	199	Yes	>0.99
	85	186	188	Yes	0.96	197	Yes	>0.99	202	Yes	>0.99
	90	186	192	Yes	0.99	200	Yes	>0.99	205	Yes	>0.99
	95	186	197	Yes	>0.99	206	Yes	>0.99	211	Yes	>0.99
3	5	197	159	No	<0.01	167	No	<0.01	170	No	<0.01
	10	197	165	No	0.01	173	No	<0.01	176	No	<0.01
	15	197	169	No	0.02	177	No	<0.01	180	No	<0.01
	20	197	173	No	0.05	180	No	0.01	183	No	<0.01
	25	197	175	No	0.09	183	No	0.03	186	No	<0.01
	30	197	178	No	0.17	185	No	0.07	189	No	0.01
	35	197	180	No	0.21	188	No	0.17	191	No	0.04
	40	197	182	No	0.3	190	No	0.23	193	No	0.13
	45	197	185	No	0.45	192	No	0.35	195	No	0.28
	50	197	187	Yes	0.5	194	Yes	0.5	197	Yes	0.5
	55	197	189	Yes	0.61	196	Yes	0.65	199	Yes	0.72
	60	197	191	Yes	0.7	198	Yes	0.77	201	Yes	0.87
	65	197	193	Yes	0.79	200	Yes	0.87	203	Yes	0.96
	70	197	195	Yes	0.83	202	Yes	0.93	206	Yes	0.99
	75	197	198	Yes	0.91	205	Yes	0.98	208	Yes	>0.99
	80	197	201	Yes	0.96	207	Yes	0.99	211	Yes	>0.99
	85	197	204	Yes	0.98	211	Yes	>0.99	214	Yes	>0.99
	90	197	208	Yes	0.99	215	Yes	>0.99	218	Yes	>0.99
	95	197	214	Yes	>0.99	220	Yes	>0.99	224	Yes	>0.99

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
4	5	208	169	No	<0.01	176	No	<0.01	178	No	<0.01
	10	208	175	No	<0.01	182	No	<0.01	184	No	<0.01
	15	208	179	No	<0.01	186	No	<0.01	188	No	<0.01
	20	208	183	No	0.02	189	No	<0.01	191	No	<0.01
	25	208	185	No	0.04	192	No	0.01	194	No	<0.01
	30	208	188	No	0.06	194	No	0.02	196	No	<0.01
	35	208	190	No	0.11	196	No	0.04	199	No	0.01
	40	208	192	No	0.17	198	No	0.09	201	No	0.02
	45	208	195	No	0.24	200	No	0.13	203	No	0.08
	50	208	197	No	0.34	202	No	0.22	205	No	0.2
	55	208	199	No	0.44	205	No	0.42	207	No	0.39
	60	208	201	Yes	0.56	207	Yes	0.58	209	Yes	0.61
	65	208	203	Yes	0.61	209	Yes	0.72	211	Yes	0.8
	70	208	205	Yes	0.71	211	Yes	0.83	213	Yes	0.92
	75	208	208	Yes	0.83	213	Yes	0.91	216	Yes	0.99
	80	208	211	Yes	0.89	216	Yes	0.97	219	Yes	>0.99
	85	208	214	Yes	0.95	219	Yes	0.99	222	Yes	>0.99
	90	208	218	Yes	0.98	223	Yes	>0.99	226	Yes	>0.99
	95	208	224	Yes	>0.99	229	Yes	>0.99	232	Yes	>0.99
5	5	211	178	No	<0.01	183	No	<0.01	185	No	<0.01
	10	211	183	No	<0.01	189	No	<0.01	191	No	<0.01
	15	211	187	No	0.02	193	No	<0.01	194	No	<0.01
	20	211	191	No	0.05	196	No	0.01	198	No	<0.01
	25	211	193	No	0.08	198	No	0.02	200	No	<0.01
	30	211	196	No	0.17	201	No	0.06	203	No	0.01
	35	211	198	No	0.2	203	No	0.13	205	No	0.04
	40	211	200	No	0.29	205	No	0.22	207	No	0.13
	45	211	202	No	0.39	207	No	0.35	209	No	0.28
	50	211	204	Yes	0.5	209	Yes	0.5	211	Yes	0.5
	55	211	207	Yes	0.61	211	Yes	0.65	213	Yes	0.72
	60	211	209	Yes	0.71	213	Yes	0.78	215	Yes	0.87
	65	211	211	Yes	0.8	215	Yes	0.87	217	Yes	0.96
	70	211	213	Yes	0.83	217	Yes	0.91	219	Yes	0.99
	75	211	216	Yes	0.92	220	Yes	0.97	222	Yes	>0.99
	80	211	218	Yes	0.95	222	Yes	0.99	224	Yes	>0.99
	85	211	221	Yes	0.97	226	Yes	>0.99	228	Yes	>0.99
	90	211	225	Yes	0.99	229	Yes	>0.99	231	Yes	>0.99
	95	211	231	Yes	>0.99	235	Yes	>0.99	237	Yes	>0.99

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
6	5	215	183	No	<0.01	188	No	<0.01	189	No	<0.01
	10	215	189	No	<0.01	193	No	<0.01	195	No	<0.01
	15	215	193	No	0.02	197	No	<0.01	199	No	<0.01
	20	215	196	No	0.04	200	No	0.01	202	No	<0.01
	25	215	199	No	0.1	203	No	0.03	205	No	<0.01
	30	215	202	No	0.16	205	No	0.06	207	No	0.01
	35	215	204	No	0.24	208	No	0.17	209	No	0.04
	40	215	206	No	0.33	210	No	0.28	211	No	0.13
	45	215	208	No	0.39	212	No	0.42	213	No	0.28
	50	215	210	Yes	0.5	214	Yes	0.58	215	Yes	0.5
	55	215	212	Yes	0.61	216	Yes	0.65	217	Yes	0.72
	60	215	214	Yes	0.72	218	Yes	0.78	219	Yes	0.87
	65	215	217	Yes	0.81	220	Yes	0.88	222	Yes	0.98
	70	215	219	Yes	0.87	222	Yes	0.94	224	Yes	0.99
	75	215	221	Yes	0.92	225	Yes	0.98	226	Yes	>0.99
	80	215	224	Yes	0.96	227	Yes	0.99	229	Yes	>0.99
	85	215	227	Yes	0.98	230	Yes	>0.99	232	Yes	>0.99
	90	215	231	Yes	>0.99	234	Yes	>0.99	236	Yes	>0.99
	95	215	237	Yes	>0.99	240	Yes	>0.99	242	Yes	>0.99
7	5	216	187	No	<0.01	190	No	<0.01	191	No	<0.01
	10	216	193	No	0.01	196	No	<0.01	197	No	<0.01
	15	216	197	No	0.03	200	No	<0.01	201	No	<0.01
	20	216	200	No	0.08	203	No	0.02	205	No	<0.01
	25	216	203	No	0.12	206	No	0.06	207	No	0.01
	30	216	206	No	0.24	209	No	0.17	210	No	0.04
	35	216	208	No	0.33	211	No	0.28	212	No	0.13
	40	216	210	No	0.44	213	No	0.35	214	No	0.28
	45	216	212	Yes	0.5	215	Yes	0.5	216	Yes	0.5
	50	216	214	Yes	0.61	217	Yes	0.65	218	Yes	0.72
	55	216	216	Yes	0.72	219	Yes	0.78	220	Yes	0.87
	60	216	218	Yes	0.81	221	Yes	0.88	223	Yes	0.98
	65	216	221	Yes	0.88	223	Yes	0.94	225	Yes	0.99
	70	216	223	Yes	0.92	226	Yes	0.98	227	Yes	>0.99
	75	216	225	Yes	0.96	228	Yes	0.99	229	Yes	>0.99
	80	216	228	Yes	0.98	231	Yes	>0.99	232	Yes	>0.99
	85	216	231	Yes	0.99	234	Yes	>0.99	235	Yes	>0.99
	90	216	235	Yes	>0.99	238	Yes	>0.99	239	Yes	>0.99
	95	216	241	Yes	>0.99	244	Yes	>0.99	245	Yes	>0.99

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
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
	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

Table 3.10. Proficiency Projections Based on RIT Scores—ELA/Reading

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
2	5	186	147	No	<0.01	156	No	<0.01	160	No	<0.01
	10	186	153	No	0.01	162	No	<0.01	166	No	<0.01
	15	186	157	No	0.03	166	No	<0.01	170	No	<0.01
	20	186	160	No	0.07	169	No	0.01	173	No	<0.01
	25	186	162	No	0.09	171	No	0.03	175	No	<0.01
	30	186	164	No	0.15	173	No	0.07	177	No	0.01
	35	186	166	No	0.21	175	No	0.13	180	No	0.04
	40	186	168	No	0.3	177	No	0.23	182	No	0.13
	45	186	170	No	0.35	179	No	0.29	184	No	0.28
	50	186	172	No	0.45	181	No	0.43	186	Yes	0.5
	55	186	174	Yes	0.55	183	Yes	0.57	188	Yes	0.72
	60	186	176	Yes	0.65	185	Yes	0.71	189	Yes	0.8
	65	186	178	Yes	0.75	187	Yes	0.83	192	Yes	0.96
	70	186	180	Yes	0.79	189	Yes	0.9	194	Yes	0.99
	75	186	183	Yes	0.88	191	Yes	0.95	196	Yes	>0.99
	80	186	185	Yes	0.93	194	Yes	0.99	199	Yes	>0.99
	85	186	188	Yes	0.96	197	Yes	>0.99	202	Yes	>0.99
	90	186	192	Yes	0.99	200	Yes	>0.99	205	Yes	>0.99
	95	186	197	Yes	>0.99	206	Yes	>0.99	211	Yes	>0.99
3	5	197	159	No	<0.01	167	No	<0.01	170	No	<0.01
	10	197	165	No	0.01	173	No	<0.01	176	No	<0.01
	15	197	169	No	0.02	177	No	<0.01	180	No	<0.01
	20	197	173	No	0.05	180	No	0.01	183	No	<0.01
	25	197	175	No	0.09	183	No	0.03	186	No	<0.01
	30	197	178	No	0.17	185	No	0.07	189	No	0.01
	35	197	180	No	0.21	188	No	0.17	191	No	0.04
	40	197	182	No	0.3	190	No	0.23	193	No	0.13
	45	197	185	No	0.45	192	No	0.35	195	No	0.28
	50	197	187	Yes	0.5	194	Yes	0.5	197	Yes	0.5
	55	197	189	Yes	0.61	196	Yes	0.65	199	Yes	0.72
	60	197	191	Yes	0.7	198	Yes	0.77	201	Yes	0.87
	65	197	193	Yes	0.79	200	Yes	0.87	203	Yes	0.96
	70	197	195	Yes	0.83	202	Yes	0.93	206	Yes	0.99
	75	197	198	Yes	0.91	205	Yes	0.98	208	Yes	>0.99
	80	197	201	Yes	0.96	207	Yes	0.99	211	Yes	>0.99
	85	197	204	Yes	0.98	211	Yes	>0.99	214	Yes	>0.99
	90	197	208	Yes	0.99	215	Yes	>0.99	218	Yes	>0.99
	95	197	214	Yes	>0.99	220	Yes	>0.99	224	Yes	>0.99

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
4	5	208	169	No	<0.01	176	No	<0.01	178	No	<0.01
	10	208	175	No	<0.01	182	No	<0.01	184	No	<0.01
	15	208	179	No	<0.01	186	No	<0.01	188	No	<0.01
	20	208	183	No	0.02	189	No	<0.01	191	No	<0.01
	25	208	185	No	0.04	192	No	0.01	194	No	<0.01
	30	208	188	No	0.06	194	No	0.02	196	No	<0.01
	35	208	190	No	0.11	196	No	0.04	199	No	0.01
	40	208	192	No	0.17	198	No	0.09	201	No	0.02
	45	208	195	No	0.24	200	No	0.13	203	No	0.08
	50	208	197	No	0.34	202	No	0.22	205	No	0.2
	55	208	199	No	0.44	205	No	0.42	207	No	0.39
	60	208	201	Yes	0.56	207	Yes	0.58	209	Yes	0.61
	65	208	203	Yes	0.61	209	Yes	0.72	211	Yes	0.8
	70	208	205	Yes	0.71	211	Yes	0.83	213	Yes	0.92
	75	208	208	Yes	0.83	213	Yes	0.91	216	Yes	0.99
	80	208	211	Yes	0.89	216	Yes	0.97	219	Yes	>0.99
	85	208	214	Yes	0.95	219	Yes	0.99	222	Yes	>0.99
	90	208	218	Yes	0.98	223	Yes	>0.99	226	Yes	>0.99
	95	208	224	Yes	>0.99	229	Yes	>0.99	232	Yes	>0.99
5	5	211	178	No	<0.01	183	No	<0.01	185	No	<0.01
	10	211	183	No	<0.01	189	No	<0.01	191	No	<0.01
	15	211	187	No	0.02	193	No	<0.01	194	No	<0.01
	20	211	191	No	0.05	196	No	0.01	198	No	<0.01
	25	211	193	No	0.08	198	No	0.02	200	No	<0.01
	30	211	196	No	0.17	201	No	0.06	203	No	0.01
	35	211	198	No	0.2	203	No	0.13	205	No	0.04
	40	211	200	No	0.29	205	No	0.22	207	No	0.13
	45	211	202	No	0.39	207	No	0.35	209	No	0.28
	50	211	204	Yes	0.5	209	Yes	0.5	211	Yes	0.5
	55	211	207	Yes	0.61	211	Yes	0.65	213	Yes	0.72
	60	211	209	Yes	0.71	213	Yes	0.78	215	Yes	0.87
	65	211	211	Yes	0.8	215	Yes	0.87	217	Yes	0.96
	70	211	213	Yes	0.83	217	Yes	0.91	219	Yes	0.99
	75	211	216	Yes	0.92	220	Yes	0.97	222	Yes	>0.99
	80	211	218	Yes	0.95	222	Yes	0.99	224	Yes	>0.99
	85	211	221	Yes	0.97	226	Yes	>0.99	228	Yes	>0.99
	90	211	225	Yes	0.99	229	Yes	>0.99	231	Yes	>0.99
	95	211	231	Yes	>0.99	235	Yes	>0.99	237	Yes	>0.99

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
6	5	215	183	No	<0.01	188	No	<0.01	189	No	<0.01
	10	215	189	No	<0.01	193	No	<0.01	195	No	<0.01
	15	215	193	No	0.02	197	No	<0.01	199	No	<0.01
	20	215	196	No	0.04	200	No	0.01	202	No	<0.01
	25	215	199	No	0.1	203	No	0.03	205	No	<0.01
	30	215	202	No	0.16	205	No	0.06	207	No	0.01
	35	215	204	No	0.24	208	No	0.17	209	No	0.04
	40	215	206	No	0.33	210	No	0.28	211	No	0.13
	45	215	208	No	0.39	212	No	0.42	213	No	0.28
	50	215	210	Yes	0.5	214	Yes	0.58	215	Yes	0.5
	55	215	212	Yes	0.61	216	Yes	0.65	217	Yes	0.72
	60	215	214	Yes	0.72	218	Yes	0.78	219	Yes	0.87
	65	215	217	Yes	0.81	220	Yes	0.88	222	Yes	0.98
	70	215	219	Yes	0.87	222	Yes	0.94	224	Yes	0.99
	75	215	221	Yes	0.92	225	Yes	0.98	226	Yes	>0.99
	80	215	224	Yes	0.96	227	Yes	0.99	229	Yes	>0.99
	85	215	227	Yes	0.98	230	Yes	>0.99	232	Yes	>0.99
	90	215	231	Yes	>0.99	234	Yes	>0.99	236	Yes	>0.99
	95	215	237	Yes	>0.99	240	Yes	>0.99	242	Yes	>0.99
7	5	216	187	No	<0.01	190	No	<0.01	191	No	<0.01
	10	216	193	No	0.01	196	No	<0.01	197	No	<0.01
	15	216	197	No	0.03	200	No	<0.01	201	No	<0.01
	20	216	200	No	0.08	203	No	0.02	205	No	<0.01
	25	216	203	No	0.12	206	No	0.06	207	No	0.01
	30	216	206	No	0.24	209	No	0.17	210	No	0.04
	35	216	208	No	0.33	211	No	0.28	212	No	0.13
	40	216	210	No	0.44	213	No	0.35	214	No	0.28
	45	216	212	Yes	0.5	215	Yes	0.5	216	Yes	0.5
	50	216	214	Yes	0.61	217	Yes	0.65	218	Yes	0.72
	55	216	216	Yes	0.72	219	Yes	0.78	220	Yes	0.87
	60	216	218	Yes	0.81	221	Yes	0.88	223	Yes	0.98
	65	216	221	Yes	0.88	223	Yes	0.94	225	Yes	0.99
	70	216	223	Yes	0.92	226	Yes	0.98	227	Yes	>0.99
	75	216	225	Yes	0.96	228	Yes	0.99	229	Yes	>0.99
	80	216	228	Yes	0.98	231	Yes	>0.99	232	Yes	>0.99
	85	216	231	Yes	0.99	234	Yes	>0.99	235	Yes	>0.99
	90	216	235	Yes	>0.99	238	Yes	>0.99	239	Yes	>0.99
	95	216	241	Yes	>0.99	244	Yes	>0.99	245	Yes	>0.99

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
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
	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

Table 3.11. Proficiency Projections Based on RIT Scores—Science

Grade	Percentile	Spring RIT Cut	Fall			Winter			Spring		
				Projected Proficiency			Projected Proficiency			Projected Proficiency	
			RIT	*Meets*	Prob.	RIT	*Meets*	Prob.	RIT	*Meets*	Prob.
5	5	218	181	No	<0.01	185	No	<0.01	186	No	<0.01
	10	218	185	No	<0.01	189	No	<0.01	191	No	<0.01
	15	218	188	No	<0.01	192	No	<0.01	194	No	<0.01
	20	218	190	No	<0.01	194	No	<0.01	196	No	<0.01
	25	218	192	No	<0.01	196	No	<0.01	198	No	<0.01
	30	218	194	No	0.01	198	No	<0.01	200	No	<0.01
	35	218	196	No	0.02	200	No	<0.01	202	No	<0.01
	40	218	197	No	0.02	201	No	<0.01	203	No	<0.01
	45	218	199	No	0.03	203	No	0.01	205	No	<0.01
	50	218	200	No	0.04	204	No	0.02	206	No	<0.01
	55	218	202	No	0.08	206	No	0.04	208	No	<0.01
	60	218	203	No	0.1	207	No	0.05	209	No	0.01
	65	218	205	No	0.13	209	No	0.08	211	No	0.02
	70	218	206	No	0.16	210	No	0.1	213	No	0.08
	75	218	208	No	0.24	212	No	0.18	214	No	0.13
	80	218	210	No	0.28	214	No	0.3	216	No	0.28
	85	218	212	No	0.39	216	No	0.43	219	Yes	0.61
	90	218	215	Yes	0.56	219	Yes	0.64	222	Yes	0.87
	95	218	220	Yes	0.76	224	Yes	0.9	226	Yes	0.99
8	5	221	188	No	<0.01	191	No	<0.01	191	No	<0.01
	10	221	193	No	<0.01	196	No	<0.01	196	No	<0.01
	15	221	196	No	0.01	199	No	<0.01	199	No	<0.01
	20	221	198	No	0.01	201	No	<0.01	202	No	<0.01
	25	221	201	No	0.02	204	No	<0.01	204	No	<0.01
	30	221	203	No	0.04	206	No	0.01	206	No	<0.01
	35	221	205	No	0.06	207	No	0.01	208	No	<0.01
	40	221	206	No	0.07	209	No	0.03	210	No	<0.01
	45	221	208	No	0.12	211	No	0.06	212	No	0.01
	50	221	210	No	0.18	212	No	0.08	213	No	0.01
	55	221	211	No	0.21	214	No	0.15	215	No	0.04
	60	221	213	No	0.25	216	No	0.24	217	No	0.13
	65	221	215	No	0.35	217	No	0.3	219	No	0.28
	70	221	217	No	0.45	219	No	0.43	221	Yes	0.5
	75	221	219	Yes	0.5	221	Yes	0.57	223	Yes	0.72
	80	221	221	Yes	0.6	223	Yes	0.7	225	Yes	0.87
	85	221	223	Yes	0.7	226	Yes	0.85	228	Yes	0.98
	90	221	227	Yes	0.85	229	Yes	0.94	231	Yes	>0.99
	95	221	231	Yes	0.94	234	Yes	0.99	236	Yes	>0.99

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