Predicting Performance on the Mississippi Academic Assessment Program (MAAP) Based on NWEA MAP Growth Scores

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NWEA Psychometrics and Analytics

nwea

Linking Study Updates

Date	Description
2020-07	Conducted a linking study for grades 3–8 in mathematics and ELA based on the 2020 norms and Spring 2018 data.
2025-07	Updated the linking study based on the 2025 norms.

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Executive Summary

To predict student achievement on the Mississippi Academic Assessment Program (MAAP) in grades 3–8 English language arts (ELA) and mathematics, NWEA® conducted a linking study using Spring 2018 data to derive Rasch Unit (RIT) cut scores on the MAP® Growth™ assessments that correspond to the MAAP performance levels. With this information, educators can identify students at risk of failing to meet state proficiency standards early in the year and provide tailored educational interventions. The linking study has been updated since the previous version to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025).

Table E.1 presents the MAAP *Proficient* performance level cut scores and the corresponding MAP Growth RIT cut scores that allow teachers to identify students who are on track for proficiency (*Proficient* or *Advanced*) on the state summative test and those who are not. For example, the *Proficient* cut score on the MAAP grade 3 ELA test is 365. A grade 3 student with a MAP Growth reading RIT score of 195 in the fall is likely to meet proficiency on the MAAP ELA test in the spring, whereas a grade 3 student with a MAP Growth reading RIT score lower than 195 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 MAAP test by grade 3. These cut scores were derived based on the grade 3 cuts and the 2025 NWEA growth norms for the adjacent grade (i.e., grade 2 to 3).

Table E.1. MAP Growth Cut Scores for MAAP Proficiency

Assessment		*Proficient* Cut Scores by Grade						
		2	3	4	5	6	7	8
ELA/Reading								
MAAP Spring		–	365	465	565	665	765	865
MAP Growth	Fall	182	195	205	215	219	223	226
	Winter	188	200	208	217	220	224	227
	Spring	192	203	210	218	221	225	228
Mathematics								
MAAP Spring		–	365	465	565	665	765	865
MAP Growth	Fall	181	191	205	217	218	225	235
	Winter	190	200	213	223	224	229	240
	Spring	195	206	218	227	228	232	242

Please note that the results in this report may differ from those found in the NWEA reporting system for individual districts. The typical growth scores from fall to spring or winter to spring used in this report are based on the default instructional weeks most encountered for each term (i.e., Weeks 4, 20, and 32 for fall, winter, and spring, respectively). However, instructional weeks often vary by district, so the cut scores in this report may differ slightly from the MAP Growth score reports that reflect spring instructional weeks set by partners.

E.1. Assessment Overview

The MAAP grades 3–8 ELA and mathematics tests are Mississippi's state summative assessments aligned to the Mississippi College- and Career-Readiness Standards (MS-CCRS). Based on their test scores, students are placed into one of five performance levels: Level 1: *Minimal*, Level 2: *Basic*, Level 3: *Passing*, Level 4: *Proficient*, and Level 5: *Advanced*. MAP Growth tests are adaptive interim assessments aligned to state-specific content standards and administered in the fall, winter, and spring. Scores are reported on the RIT vertical scale with a range of 100–350.

E.2. Linking Methods

Based on scores from the Spring 2018 test administration, the equipercentile linking method was used to identify the spring MAP Growth scores that correspond to the spring MAAP performance level cut scores. MAP Growth spring cut scores for grade 2 were then derived from the spring cuts for grade 3 and the growth norms for the adjacent grade (i.e., grades 2 to 3). Similarly, the MAP Growth cut scores for the fall and winter administrations of all grades were derived from the spring administration cuts and the growth norms for either fall to spring or winter to spring, respectively. The spring cuts[1] for mathematics were adjusted for score alignment before deriving the cuts for grade 2 spring and for all grades' fall and winter administrations.

E.3. Student Sample

Only students who took both the MAP Growth and MAAP assessments in Spring 2018 were included in the study sample. Table E.2 presents the weighted numbers of Mississippi students from 7 districts and 30 schools who were included in the linking study. The linking study sample is voluntary and can only include student scores from partners who share their data. Also, not all students in a state take MAP Growth. The sample may therefore not represent the general student population as well as it should. To ensure that the linking study sample represents the state student population in terms of race, sex, and performance level, weighting (i.e., a statistical method that matches the distributions of the variables of interest to those of the target population) was applied to the sample. As a result, the RIT cuts derived from the study sample can be generalized to any student from the target population. All analyses in this study for grades 3–8 were conducted based on the weighted sample.

[1] To enhance content validity, NWEA developed an Enhanced Item-Selection Algorithm (EISA) for the MAP Growth assessment to prioritize grade-level content. A pilot study (Meyer et al., 2023) showed that students taking MAP Growth with EISA demonstrated higher average math scores compared with those taking traditional MAP Growth. To improve score comparability, NWEA (Lewis & Kuhfeld, 2024) developed concordance tables to adjust mathematics scores from traditional assessments to align with scores from MAP Growth with EISA, or vice versa. Given that the data for this study were collected from traditional MAP Growth tests but that the results will be used for MAP Growth with EISA, the spring cuts for mathematics were adjusted using the concordance tables before being used to derive other cut scores. This score adjustment will become unnecessary for future linking studies once the new data from EISA tests are collected.

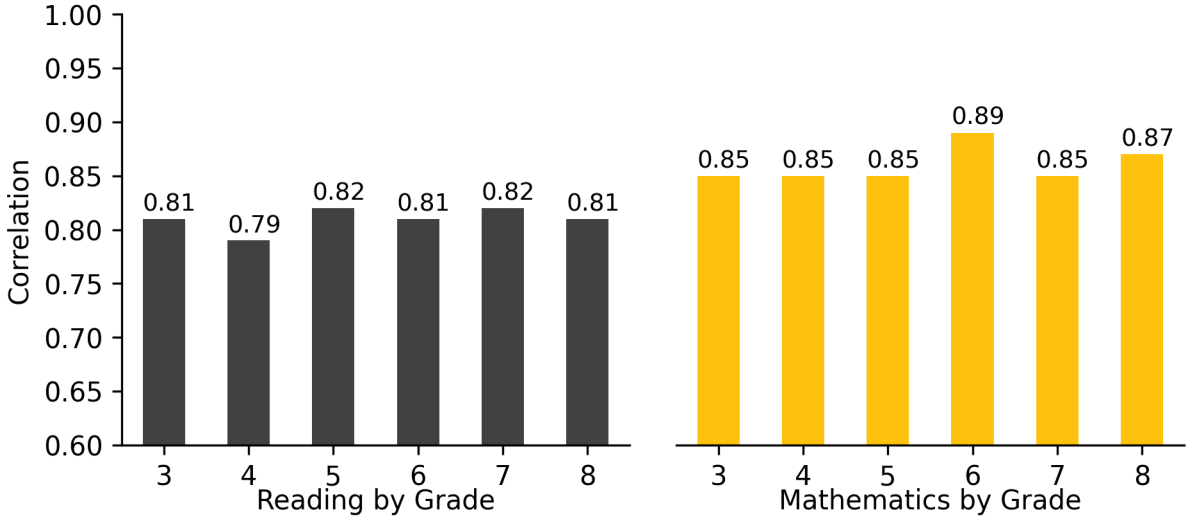
Table E.2. Linking Study Sample

Grade	# Students	
	ELA/Reading	Mathematics
3	1,402	1,429
4	1,314	1,352
5	1,408	1,431
6	1,265	1,307
7	1,244	1,248
8	1,242	1,262

E.4. Test Score Relationships

Correlations between MAP Growth RIT scores and MAAP scores range from 0.79 to 0.89 across both content areas, as shown in Figure E.1. These values indicate a strong relationship among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the MAAP assessments.

Figure E.1. Correlations Between MAP Growth and MAAP

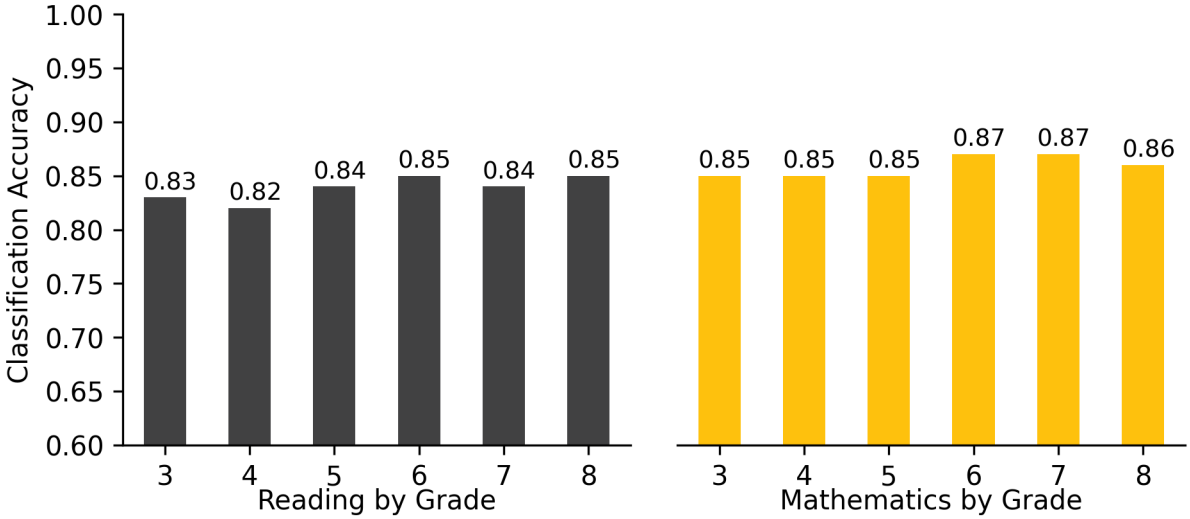


E.5. Accuracy of MAP Growth Classifications

Figure E.2 presents the classification accuracy statistics that show the proportion of students correctly classified by their RIT scores as proficient (*Proficient* or *Advanced*) or not proficient (*Minimal*, *Basic*, or *Passing*) on the MAAP tests.[2] For example, the MAP Growth reading grade 3 *Proficient* cut score has a 0.83 accuracy rate, meaning it accurately classified student achievement on the state test for 83% of the sample. The results range from 0.82 to 0.87 across both content areas, indicating that RIT scores have a high accuracy rate of identifying student proficiency on the MAAP tests.

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

Figure E.2. Accuracy of MAP Growth Classifications



1. Introduction

1.1. Purpose of the Study

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

This report presents results from a linking study conducted by NWEA in July 2020 to statistically connect the scores of the Mississippi Academic Assessment Program (MAAP) grades 3–8 English language arts (ELA) and mathematics assessments with Rasch Unit (RIT) scores from the MAP Growth assessments taken during the Spring 2018 term. The linking study has been updated since the previous version to incorporate the most recent 2025 NWEA MAP Growth norms (NWEA, 2025). In this updated study, MAP Growth cut scores are also included for grade 2 so that educators can track early learners' progress toward proficiency on the MAAP test by grade 3. This report presents the following results:

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

1.2. Assessment Overview

The MAAP grades 3–8 ELA and mathematics summative assessments are aligned to the Mississippi College- and Career-Readiness Standards. Each assessment has four cut scores (i.e., the minimum score a student must get on a test to be placed in a certain performance level) that distinguish between the following performance levels: Level 1: *Minimal*, Level 2: *Basic*, Level 3: *Passing*, Level 4: *Proficient*, and Level 5: *Advanced*. The *Proficient* cut score demarks the minimum level of performance considered to be proficient for accountability purposes.

MAP Growth interim assessments from NWEA are computer adaptive and aligned to state-specific content standards. Scores are reported on the RIT vertical scale with a range of 100–350. Each content area has its own scale. To aid the interpretation of scores, NWEA periodically conducts norming studies of student and school performance on MAP Growth. Achievement status norms show how well a student performed on the MAP Growth test compared with students in the norming group by associating the student's performance on the MAP Growth test, expressed as a RIT score, with a percentile ranking. Growth norms provide expected score gains across test administrations (e.g., the relative evaluation of a student's growth from fall to spring). The most recent norms study was conducted in 2025 (NWEA, 2025).

2. Methods

2.1. Data Collection

This linking study is based on data from the Spring 2018 administrations of the MAP Growth and MAAP assessments. NWEA requested that Mississippi districts recruited to participate in the study share their student and score data for the target term. Districts also permitted NWEA to access students' associated MAP Growth scores from the NWEA in-house database. Once Mississippi state score information was available to NWEA, each student's state testing record was matched to their MAP Growth score by using the student's first and last names, date of birth, student ID, and other available identifying information. Only students who took both the MAP Growth and MAAP assessments in Spring 2018 were included in the study sample.

2.2. Post-Stratification Weighting

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

1. Calculate marginal distributions of race, sex, and 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. MAP Growth Cut Scores

The equipercentile linking method (Kolen & Brennan, 2004) was used to identify the spring MAP Growth RIT scores that correspond to the spring MAAP performance level cut scores. Spring cuts for grade 2 were derived based on the cuts for grade 3 and the 2025 NWEA growth norms. MAP Growth fall and winter cut scores that predict proficiency on the spring MAAP test were then projected using the 2025 growth norms. Percentile ranks are also provided that show how a nationally representative sample of students in the same grade scored on MAP Growth for each administration, which is an important interpretation of RIT scores. This is useful for understanding (1) how student scores compare with peers nationwide and (2) the relative rigor of a state's performance level designations for its summative assessment.

The MAP Growth spring cut scores for grades 3–8 could be calculated using the equipercentile linking method because that data are directly connected to the MAAP spring data used in the study. The equipercentile linking procedure matches scores on the two scales that have the same percentile rank (i.e., the proportion of tests at or below each score). For example, let x represent a score on Test X (e.g., MAAP). 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 MAAP tests on the scale of MAP Growth, $P(x)$ is the percentile rank of a given score on the MAAP tests, and G^{-1} is the inverse of the percentile rank function for MAP Growth that indicates the score on MAP Growth corresponding to a given percentile. Polynomial loglinear pre-smoothing was applied to reduce irregularities of the score distributions and equipercentile linking curve.

The MAP Growth conditional growth norms provide students' expected score gains across terms, such as growth from fall or winter to spring within the same grade or from spring of a lower grade to the spring of the adjacent higher grade. This information can be used to calculate the fall and winter cut scores for grades 3–8 and the fall, winter, and spring cut scores for grade 2. The equation below was used to determine the previous term's or grade's MAP Growth score needed to reach the spring cut score, considering the expected growth associated with the previous RIT score:

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

where:

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

To derive the spring cut scores for grade 2, the growth score from spring of one year to the next was used (i.e., the growth score from spring grade 2 to spring grade 3). The calculation of fall and winter cuts for grade 2 followed the same process as the other grades. For example, the growth score from fall to spring in grade 2 was used to calculate the fall cuts for grade 2.

2.4. Classification Accuracy

The degree to which MAP Growth predicts student proficiency status on the MAAP tests can be described using classification accuracy statistics based on the MAP Growth RIT spring cut scores that show the proportion of students correctly classified by their RIT scores as proficient (*Proficient* or *Advanced*) or not proficient (*Minimal, Basic,* or *Passing*). Table 2.1 describes the classification accuracy statistics provided in this report (Pommerich et al., 2004). The results are based on the Spring 2018 MAP Growth and MAAP data for the *Proficient* cut score.

Table 2.1. Description of Classification Accuracy Summary Statistics

Statistic	Description	Interpretation
Overall Classification Accuracy Rate	(TP + TN) / (total sample size)	Proportion of the study sample whose proficiency classification on the state test was correctly predicted by MAP Growth cut scores
False Negative (FN) Rate	FN / (FN + TP)	Proportion of students identified by MAP Growth as not proficient in those observed as proficient on the state test
False Positive (FP) Rate	FP / (FP + TN)	Proportion of students identified by MAP Growth as not proficient in those observed as not proficient on the state test
Sensitivity	TP / (TP + FN)	Proportion of students identified by MAP Growth as proficient in those observed as such on the state test

Statistic	Description	Interpretation
Specificity	TN / (TN + FP)	Proportion of students identified by MAP Growth as not proficient in those observed as such on the state test
Precision	TP / (TP + FP)	Proportion of students observed as proficient on the state test in those identified as such by the MAP Growth test
Area Under the Curve (AUC)	Area under the receiver operating characteristics (ROC) curve	How well MAP Growth cut scores separate the study sample into proficiency categories that match those from the state test cut scores. An AUC at or above 0.80 is considered "good" accuracy.

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

2.5. Proficiency Projections

Given that all test scores contain measurement errors, reaching the *Proficient* 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 (*Proficient* or *Advanced*) on the state test, with their chances increasing the greater their score is from the cut. The proficiency projections indicate these probabilities for various RIT scores throughout the year.

In addition to calculating the MAP Growth fall and winter cut scores (and the projected grade 2 cut scores), the MAP Growth conditional growth norms data were also used to calculate the probability of reaching proficiency on the MAAP test based on a student's RIT scores from fall, winter, and spring. The equation below was used to calculate the probability of a student achieving proficiency on the MAAP test based on their fall or winter RIT score:

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

where:

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

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

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

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

3. Results

3.1. Study Sample

Only students who took both the MAP Growth and MAAP assessments in Spring 2018 were included in the study sample. Data used in this study were collected from 7 districts and 30 schools in Mississippi. Table 3.1 presents the demographic distributions of race, sex, and performance level in the original unweighted study sample. Table 3.2 presents the distributions of the student population who took the Spring 2018 MAAP tests (MDE, 2018). Since the unweighted data are different from the general MAAP population, post-stratification weights were applied to the linking study sample to improve its representativeness. Table 3.3 presents the demographic distributions of the sample after weighting, which are almost identical to the MAAP student population distributions. The analyses in this study were therefore conducted based on the weighted sample.

Table 3.1. Linking Study Sample Demographics (Unweighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	1,403	1,314	1,407	1,265	1,244	1,242
Race	Asian	1.4	1.4	1.1	1.3	1.1	0.9
	Black	34.1	34.4	35.7	32.6	29.8	28.6
	Hispanic	7.1	5.1	6.1	5.8	5.1	5.6
	Other	1.0	1.1	0.9	1.7	1.6	1.0
	White	56.5	58.1	56.2	58.7	62.3	63.8
Sex	Female	49.5	48.9	48.1	49.6	46.9	48.0
	Male	50.5	51.1	51.9	50.4	53.1	52.0
Performance Level	*Minimal*	6.1	2.7	5.6	8.0	5.5	8.5
	Basic	15.2	16.2	15.6	17.6	16.9	12.2
	Passing	28.7	28.8	41.2	32.5	36.4	34.4
	Proficient	43.1	40.0	31.1	24.0	24.1	35.6
	Advanced	7.1	12.3	6.5	17.9	17.1	9.4
Mathematics							
	Total N	1,430	1,351	1,431	1,307	1,248	1,262
Race	Asian	1.3	1.4	1.2	1.5	1.0	1.0
	Black	34.3	34.0	36.3	32.3	29.7	28.4
	Hispanic	6.8	5.1	5.9	5.7	5.2	5.8
	Other	1.0	1.0	0.9	1.5	1.6	1.0
	White	56.6	58.5	55.6	59.0	62.4	63.8
Sex	Female	49.2	48.9	48.1	49.7	47.0	48.0
	Male	50.8	51.1	51.9	50.3	53.0	52.0
Performance Level	*Minimal*	3.7	2.9	4.8	7.9	2.8	7.9
	Basic	17.8	12.9	17.0	15.6	15.8	15.0
	Passing	28.2	23.1	33.3	21.7	22.5	25.4
	Proficient	33.8	29.8	25.4	30.8	35.5	35.6
	Advanced	16.5	31.3	19.6	24.1	23.4	16.2

Table 3.2. Spring 2018 MAAP Student Population Demographics

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	36,640	37,532	37,668	34,700	34,502	34,215
Race	Asian	1.0	1.0	1.0	1.2	1.1	1.1
	Black	48.3	49.0	48.9	47.5	47.2	46.8
	Hispanic	4.2	4.2	4.3	4.0	3.8	3.8
	Other	3.1	2.7	2.4	2.1	2.1	2.0
	White	43.4	43.1	43.4	45.2	45.8	46.3
Sex	Female	49.2	49.3	48.8	49.4	48.7	48.9
	Male	50.8	50.7	51.2	50.6	51.3	51.1
Performance Level	*Minimal*	6.9	3.4	5.5	6.7	7.2	11.0
	Basic	17.6	22.1	17.0	21.8	22.0	15.9
	Passing	30.1	28.8	41.0	33.2	35.6	37.5
	Proficient	38.9	36.2	30.9	24.1	22.2	27.4
	Advanced	6.4	9.5	5.7	14.2	13.0	8.2
Mathematics							
	Total N	36,455	35,630	37,364	34,644	34,316	34,189
Race	Asian	1.0	1.0	1.0	1.2	1.1	1.1
	Black	48.4	49.8	49.1	47.5	47.3	46.8
	Hispanic	4.2	3.9	4.2	4.0	3.8	3.8
	Other	3.1	2.6	2.4	2.1	2.1	2.0
	White	43.3	42.7	43.4	45.2	45.7	46.3
Sex	Female	49.2	49.2	48.8	49.4	48.7	48.9
	Male	50.8	50.8	51.2	50.6	51.3	51.1
Performance Level	*Minimal*	4.5	6.9	6.6	7.8	4.4	11.6
	Basic	20.1	19.9	20.7	18.4	20.9	20.4
	Passing	28.6	29.0	38.5	27.0	25.1	26.3
	Proficient	34.8	29.3	23.3	31.8	34.2	29.8
	Advanced	11.9	15.0	10.9	15.	15.4	11.9

Table 3.3. Linking Study Sample Demographics (Weighted)

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
ELA/Reading							
	Total N	1,402	1,314	1,408	1,265	1,244	1,242
Race	Asian	1.0	1.0	1.0	1.2	1.1	1.1
	Black	48.3	49.0	48.9	47.5	47.2	46.8
	Hispanic	4.2	4.2	4.3	4.0	3.8	3.8
	Other	3.1	2.7	2.4	2.1	2.1	2.0
	White	43.4	43.1	43.4	45.2	45.8	46.3
Sex	Female	49.2	49.3	48.8	49.4	48.7	48.9
	Male	50.8	50.7	51.2	50.6	51.3	51.1

Demographic Subgroup		% Students by Grade					
		3	4	5	6	7	8
Performance Level	*Minimal*	6.9	3.4	5.5	6.7	7.2	11.0
	Basic	17.6	22.1	17.0	21.8	22.0	15.9
	Passing	30.1	28.8	41.0	33.2	35.6	37.5
	Proficient	38.9	36.2	30.9	24.1	22.2	27.4
	Advanced	6.4	9.5	5.7	14.2	13.0	8.2
Mathematics							
	Total N	1,429	1,352	1,431	1,307	1,248	1,262
Race	Asian	1.0	1.0	1.0	1.2	1.1	1.1
	Black	48.4	49.8	49.1	47.5	47.3	46.8
	Hispanic	4.2	3.9	4.2	4.0	3.8	3.8
	Other	3.1	2.6	2.4	2.1	2.1	2.0
	White	43.3	42.7	43.4	45.2	45.7	46.3
Sex	Female	49.2	49.2	48.8	49.4	48.7	48.9
	Male	50.8	50.8	51.2	50.6	51.3	51.1
Performance Level	*Minimal*	4.5	6.9	6.6	7.8	4.4	11.6
	Basic	20.1	19.9	20.7	18.4	20.9	20.4
	Passing	28.6	29.0	38.5	27.0	25.1	26.3
	Proficient	34.8	29.3	23.3	31.8	34.2	29.8
	Advanced	11.9	15.0	10.9	15.0	15.4	11.9

3.2. Descriptive Statistics

Table 3.4 presents descriptive statistics of the MAP Growth and MAAP test scores from Spring 2018, including the correlation coefficients (*r*) between them. The correlation coefficients between the scores range from 0.79 to 0.82 for ELA/reading and 0.85 to 0.89 for mathematics. These values indicate a strong relationship among the scores, which is important validity evidence for the claim that MAP Growth scores are good predictors of performance on the MAAP assessments.

Table 3.4. Descriptive Statistics of Test Scores

Grade	N	*r*	MAAP				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
ELA/Reading										
3	1,402	0.81	361.1	17.9	303	399	199.7	13.9	145	242
4	1,314	0.79	461.8	19.0	409	499	206.2	14.2	142	250
5	1,408	0.82	559.6	14.0	517	599	212.0	13.8	140	246
6	1,265	0.81	659.4	16.5	611	699	216.0	13.2	148	258
7	1,244	0.82	758.6	14.7	712	797	218.5	14.6	147	259
8	1,242	0.81	859.4	14.3	801	899	221.2	15.2	151	266
Mathematics										
3	1,429	0.85	363.0	17.9	316	399	201.9	11.8	147	248
4	1,352	0.85	462.4	19.0	418	499	209.5	14.4	142	256
5	1,431	0.85	559.8	14.3	525	599	217.3	14.8	145	263
6	1,307	0.89	663.3	20.3	609	699	222.6	15.3	158	265

Grade	N	*r*	MAAP				MAP Growth			
			Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
7	1,248	0.85	766.1	20.5	721	799	227.7	17.4	150	284
8	1,262	0.87	861.2	20.0	816	899	231.8	18.3	155	292

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

3.3. MAP Growth Cut Scores

Table 3.5 and Table 3.6 present the MAAP scale score ranges and the corresponding MAP Growth RIT cut scores and percentile ranges by content area and grade. These tables can be used to predict a student's likely performance level on the MAAP spring assessment when MAP Growth is taken in the fall, winter, or spring. For example, a grade 3 student who obtained a MAP Growth reading RIT score of 195 in the fall is likely to reach *Proficient* on the MAAP ELA test. A grade 3 student who obtained a MAP Growth reading RIT score of 200 in the winter is also likely to reach *Proficient* on the MAAP. The winter cut score is higher than the fall cut score because growth is expected between fall and winter as students receive more instruction during the school year.

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

Table 3.5. MAP Growth Cut Scores—ELA/Reading

MAAP ELA					
Grade	**Level 1: *Minimal***	**Level 2: *Basic***	**Level 3: *Passing***	**Level 4: *Proficient***	**Level 5: *Advanced***
3	301–334	335–349	350–364	**365**–386	387–399
4	401–428	429–449	450–464	**465**–487	488–499
5	501–538	539–549	550–564	**565**–581	582–599
6	601–635	636–649	650–664	**665**–678	679–699
7	701–737	738–749	750–764	**765**–775	776–799
8	801–841	842–849	850–864	**865**–879	880–899

MAP Growth Reading										
Grade	**Level 1: *Minimal***		**Level 2: *Basic***		**Level 3: *Passing***		**Level 4: *Proficient***		**Level 5: *Advanced***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall										
2	100–149	1–11	150–166	12–42	167–181	43–75	**182**–204	76–97	205–350	98–99
3	100–168	1–19	169–182	20–45	183–194	46–70	**195**–213	71–94	214–350	95–99
4	100–171	1–8	172–192	9–43	193–204	44–68	**205**–219	69–90	220–350	91–99
5	100–182	1–11	183–198	12–38	199–214	39–73	**215**–229	74–92	230–350	93–99
6	100–190	1–13	191–207	14–47	208–218	48–71	**219**–230	72–89	231–350	90–99
7	100–192	1–11	193–208	12–41	209–222	42–73	**223**–231	74–87	232–350	88–99
8	100–199	1–17	200–210	18–38	211–225	39–72	**226**–237	73–89	238–350	90–99
Winter										
2	100–156	1–12	157–173	13–43	174–187	44–74	**188**–210	75–97	211–350	98–99
3	100–173	1–18	174–187	19–45	188–199	46–70	**200**–217	71–93	218–350	94–99
4	100–175	1–8	176–196	9–44	197–207	45–67	**208**–221	68–89	222–350	90–99
5	100–186	1–12	187–200	13–37	201–216	38–72	**217**–230	73–91	231–350	92–99
6	100–193	1–15	194–208	16–45	209–219	46–70	**220**–231	71–89	232–350	90–99
7	100–194	1–12	195–209	13–40	210–223	41–72	**224**–232	73–86	233–350	87–99
8	100–200	1–16	201–211	17–38	212–226	39–71	**227**–238	72–89	239–350	90–99
Spring										
2	100–163	1–14	164–178	15–43	179–191	44–71	**192**–211	72–95	212–350	96–99
3	100–179	1–21	180–191	22–45	192–202	46–68	**203**–218	69–91	219–350	92–99
4	100–180	1–11	181–199	12–44	200–209	45–66	**210**–222	67–87	223–350	88–99

MAP Growth Reading										
Grade	Level 1: *Minimal*		Level 2: *Basic*		Level 3: *Passing*		Level 4: *Proficient*		Level 5: *Advanced*	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
5	100–190	1–15	191–203	16–39	204–217	40–70	**218**–231	71–91	232–350	92–99
6	100–196	1–17	197–210	18–47	211–220	48–69	**221**–232	70–89	233–350	90–99
7	100–197	1–15	198–211	16–42	212–224	43–72	**225**–233	73–86	234–350	87–99
8	100–203	1–20	204–213	21–40	214–227	41–71	**228**–239	72–89	240–350	90–99

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

Table 3.6. MAP Growth Cut Scores—Mathematics

MAAP Mathematics					
Grade	**Level 1: *Minimal***	**Level 2: *Basic***	**Level 3: *Passing***	**Level 4: *Proficient***	**Level 5: *Advanced***
3	301–332	333–349	350–364	**365**–383	384–399
4	401–435	436–449	450–464	**465**–483	484–499
5	501–539	540–549	550–564	**565**–578	579–599
6	601–635	636–649	650–664	**665**–686	687–699
7	701–735	736–749	750–764	**765**–792	793–799
8	801–837	838–849	850–864	**865**–888	889–899

MAP Growth Mathematics										
Grade	**Level 1: *Minimal***		**Level 2: *Basic***		**Level 3: *Passing***		**Level 4: *Proficient***		**Level 5: *Advanced***	
	RIT	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**	**RIT**	**Percentile**
Fall										
2	100–147	1–4	148–168	5–39	169–180	40–69	**181**–195	70–92	196–350	93–99
3	100–163	1–9	164–181	10–44	182–190	45–66	**191**–202	67–88	203–350	89–99
4	100–177	1–11	178–193	12–41	194–204	42–68	**205**–215	69–87	216–350	88–99
5	100–187	1–12	188–200	13–36	201–216	37–74	**217**–228	75–91	229–350	92–99
6	100–193	1–15	194–207	16–43	208–217	44–68	**218**–229	69–88	230–350	89–99
7	100–197	1–12	198–212	13–39	213–224	40–66	**225**–240	67–91	241–350	92–99
8	100–206	1–20	207–221	21–49	222–234	50–75	**235**–248	76–92	249–350	93–99
Winter										
2	100–155	1–4	156–176	5–38	177–189	39–70	**190**–203	71–92	204–350	93–99
3	100–171	1–9	172–189	10–43	190–199	44–66	**200**–212	67–88	213–350	89–99
4	100–184	1–12	185–200	13–41	201–212	42–68	**213**–223	69–86	224–350	87–99
5	100–191	1–12	192–206	13–38	207–222	39–73	**223**–234	74–90	235–350	91–99
6	100–197	1–14	198–213	15–44	214–223	45–67	**224**–236	68–88	237–350	89–99
7	100–199	1–12	200–216	13–40	217–228	41–66	**229**–245	67–90	246–350	91–99
8	100–209	1–19	210–225	20–49	226–239	50–76	**240**–253	77–92	254–350	93–99
Spring										
2	100–164	1–7	165–183	8–40	184–194	41–67	**195**–207	68–89	208–350	90–99
3	100–179	1–12	180–196	13–44	197–205	45–65	**206**–217	66–86	218–350	87–99
4	100–190	1–14	191–206	15–42	207–217	43–66	**218**–228	67–84	229–350	85–99

MAP Growth Mathematics										
Grade	Level 1: *Minimal*		Level 2: *Basic*		Level 3: *Passing*		Level 4: *Proficient*		Level 5: *Advanced*	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
5	100–196	1–14	197–210	15–38	211–226	39–71	**227**–238	72–88	239–350	89–99
6	100–202	1–16	203–217	17–44	218–227	45–65	**228**–240	66–86	241–350	87–99
7	100–203	1–14	204–219	15–41	220–231	42–65	**232**–247	66–88	248–350	89–99
8	100–213	1–22	214–228	23–49	229–241	50–73	**242**–255	74–90	256–350	91–99

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

3.4. Growth Levels

While the MAAP assessments have five performance levels, there are eight growth levels that measure students' growth from one year to the next: Level 1a, Level 1b, Level 2a, Level 2b, Level 3a, Level 3b, Level 4, and Level 5. The Mississippi Statewide Accountability System assigns a performance rating of A, B, C, D, or F to each school and district based on points earned. Schools and districts earn points in several categories, including student achievement, individual growth, and participation on statewide assessments (MDE, 2024). Growth points are calculated based on the following criteria (MDE, 2019):

- Moving 1 growth level (e.g., from Level 1a to Level 1b) = 1 pt.
- Moving 2 performance levels (e.g., from Level 1 to Level 2) = 1.25 pts.
- Moving from any lower level to Level 5 = 1.25 pts.
- Staying at Level 5 = 1.25 pts.

Table 3.7 and Table 3.8 present the MAP Growth score predictions for the Level 1, Level 2, and Level 3 sublevels. Together, Table 3.5 through Table 3.8 can be used to predict a student's growth in ELA and mathematics across school years by following the steps below:

1. Find the student's score from a prior MAAP test and identify the corresponding MAP Growth RIT score.
2. Identify the performance level needed to achieve growth and find the corresponding MAP Growth score.
3. Calculate the difference between the initial and final MAP Growth scores to find out how much a student must grow to show a growth level.

Although these tables provide the projected RIT score ranges that correspond to different performance levels on the MAAP assessments, in practice one needs to be aware of different sources of measurement error that could lead to an incorrect classification when applying these tables. The reasons for the misclassification may include the following:

1. Measurement errors of state scale scores and RIT scores. For example, if a RIT score is 200 and its SEM is 5, the student score is more likely to be in the range of 195 and 205 if this student took the test again.
2. The imperfect correlation between the state scale scores and RIT scores (i.e., the correlation is not equal to 1)
3. Conditional growth measurement errors in the growth norms when projecting the score ranges in the fall and winter from the scores in the spring
4. The actual instructional weeks of each school district may differ from the standard default instructional weeks used in this study to estimate the growth from fall or winter to spring, which can impact the classification accuracy of the fall and winter cut scores.
5. The score distribution of the study sample may not represent the distribution of the population perfectly, although the post-stratification is applied to improve the gender, ethnicity, and performance level distributions correlated with the score distribution.
6. Score distribution irregularities can cause problems in the linking study results (Livingston, 2004). In other words, when no students receive a particular RIT score or range of RIT scores, this can cause problems for equating. The irregularities become worse at the lower and higher ends of the study sample, although a polynomial loglinear pre-smoothing is used to reduce the irregularities in this study. As a result, the RIT score ranges may result in less-accurate classification of students into different sublevels.

Table 3.7. MAP Growth Cut Scores for Level 1, Level 2, and Level 3 Growth Levels—ELA/Reading

MAAP ELA						
Grade	Level 1: *Minimal*		Level 2: *Basic*		Level 3: *Passing*	
	Level 1a	Level 1b	Level 2a	Level 2b	Level 3a	Level 3b
3	301–317	318–334	335–342	343–349	350–357	358–364
4	401–414	415–428	429–439	440–449	450–457	458–464
5	501–519	520–538	539–544	545–549	550–557	558–564
6	601–618	619–635	636–642	643–649	650–657	658–664
7	701–719	720–737	738–743	744–749	750–757	758–764
8	801–821	822–841	842–845	846–849	850–857	858–864

MAP Growth Reading												
Grade	Level 1: *Minimal*				Level 2: *Basic*				Level 3: *Passing*			
	Level 1a		Level 1b		Level 2a		Level 2b		Level 3a		Level 3b	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
Fall												
2	100–125	<1	126–149	1–11	150–158	12–25	159–166	26–42	167–174	43–60	175–350	61–99
3	100–148	1–2	149–168	3–19	169–175	20–31	176–182	32–45	183–188	46–58	189–350	59–99
4	100–151	<1	152–171	1–8	172–182	9–23	183–192	24–43	193–198	44–56	199–350	57–99
5	100–152	<1	153–182	1–11	183–191	12–24	192–198	25–38	199–207	39–59	208–350	60–99
6	100–155	<1	156–190	1–13	191–199	14–29	200–207	30–47	208–214	48–63	215–350	64–99
7	100–157	<1	158–192	1–11	193–200	12–24	201–208	25–41	209–216	42–60	217–350	61–99
8	100–157	<1	158–199	1–17	200–204	18–25	205–210	26–38	211–219	39–59	220–350	60–99
Winter												
2	100–133	<1	134–156	1–12	157–165	13–26	166–173	27–43	174–181	44–61	182–350	62–99
3	100–154	1–2	155–173	3–18	174–180	19–30	181–187	31–45	188–194	46–60	195–350	61–99
4	100–156	<1	157–175	1–8	176–186	9–23	187–196	24–44	197–202	45–57	203–350	58–99
5	100–156	<1	157–186	1–12	187–194	13–24	195–200	25–37	201–209	38–57	210–350	58–99
6	100–157	<1	158–193	1–15	194–201	16–29	202–208	30–45	209–215	46–61	216–350	62–99
7	100–159	<1	160–194	1–12	195–202	13–25	203–209	26–40	210–217	41–59	218–350	60–99
8	100–159	<1	160–200	1–16	201–206	17–27	207–211	28–38	212–220	39–58	221–350	59–99
Spring												

MAP Growth Reading												
Grade	Level 1: *Minimal*				Level 2: *Basic*				Level 3: *Passing*			
	Level 1a		Level 1b		Level 2a		Level 2b		Level 3a		Level 3b	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
2	100–143	<1	144–163	1–14	164–171	15–28	172–178	29–43	179–185	44–59	186–350	60–99
3	100–162	1–3	163–179	4–21	180–185	22–32	186–191	33–45	192–197	46–58	198–350	59–99
4	100–163	≤1	164–180	2–11	181–190	12–26	191–199	27–44	200–204	45–56	205–350	57–99
5	100–164	<1	165–190	1–15	191–197	16–26	198–203	27–39	204–211	40–57	212–350	58–99
6	100–165	<1	166–196	1–17	197–203	18–30	204–210	31–47	211–216	48–61	217–350	62–99
7	100–166	<1	167–197	1–15	198–204	16–27	205–211	28–42	212–218	43–59	219–350	60–99
8	100–167	<1	168–203	1–20	204–208	21–29	209–213	30–40	214–221	41–59	222–350	60–99

Note. Cut scores for fall and winter are derived from the spring cuts and growth norms based on the typical instructional weeks. Spring cut scores for grade 2 were derived from the grade 3 cuts using the growth norms.

Table 3.8. MAP Growth Cut Scores for Level 1, Level 2, and Level 3 Growth Levels—Mathematics

MAAP Mathematics						
Grade	Level 1: *Minimal*		Level 2: *Basic*		Level 3: *Passing*	
	Level 1a	Level 1b	Level 2a	Level 2b	Level 3a	Level 3b
3	301–316	317–332	333–341	342–349	350–357	358–364
4	401–418	419–435	436–442	443–449	450–457	458–464
5	501–520	521–539	540–544	545–549	550–557	558–564
6	601–618	619–635	636–642	643–649	650–657	658–664
7	701–718	719–735	736–742	743–749	750–757	758–764
8	801–819	820–837	838–843	844–849	850–857	858–864

MAP Growth Mathematics												
Grade	Level 1: *Minimal*				Level 2: *Basic*				Level 3: *Passing*			
	Level 1a		Level 1b		Level 2a		Level 2b		Level 3a		Level 3b	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
Fall												
2	100–106	<1	107–147	1–4	148–158	5–17	159–168	18–39	169–175	40–57	176–350	58–99
3	100–132	<1	133–163	1–9	164–173	10–25	174–181	26–44	182–186	45–57	187–350	58–99
4	100–137	<1	138–177	1–11	178–187	12–28	188–193	29–41	194–200	42–59	201–350	60–99
5	100–146	<1	147–187	1–12	188–194	13–23	195–200	24–36	201–210	37–61	211–350	62–99
6	100–169	<1	170–193	1–15	194–201	16–29	202–207	30–43	208–213	44–58	214–350	59–99
7	100–173	<1	174–197	1–12	198–205	13–25	206–212	26–39	213–219	40–55	220–350	56–99
8	100–173	<1	174–206	1–20	207–214	21–34	215–221	35–49	222–229	50–66	230–350	67–99
Winter												
2	100–115	<1	116–155	1–4	156–166	5–17	167–176	18–38	177–183	39–56	184–350	57–99
3	100–139	<1	140–171	1–9	172–181	10–25	182–189	26–43	190–195	44–57	196–350	58–99
4	100–142	<1	143–184	1–12	185–194	13–28	195–200	29–41	201–207	42–57	208–350	58–99
5	100–149	<1	150–191	1–12	192–199	13–24	200–206	25–38	207–216	39–61	217–350	62–99
6	100–173	<1	174–197	1–14	198–206	15–29	207–213	30–44	214–219	45–58	220–350	59–99
7	100–175	<1	176–199	1–12	200–209	13–26	210–216	27–40	217–223	41–55	224–350	56–99
8	100–175	<1	176–209	1–19	210–218	20–35	219–225	36–49	226–233	50–65	234–350	66–99
Spring												

MAP Growth Mathematics												
Grade	Level 1: *Minimal*				Level 2: *Basic*				Level 3: *Passing*			
	Level 1a		Level 1b		Level 2a		Level 2b		Level 3a		Level 3b	
	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile	RIT	Percentile
2	100–128	<1	129–164	1–7	165–174	8–21	175–183	22–40	184–189	41–55	190–350	56–99
3	100–148	<1	149–179	1–12	180–188	13–27	189–196	28–44	197–201	45–56	202–350	57–99
4	100–149	<1	150–190	1–14	191–200	15–30	201–206	31–42	207–213	43–58	214–350	59–99
5	100–154	<1	155–196	1–14	197–203	15–25	204–210	26–38	211–220	39–60	221–350	61–99
6	100–178	<1	179–202	1–16	203–211	17–32	212–217	33–44	218–223	45–57	224–350	58–99
7	100–179	<1	180–203	1–14	204–212	15–28	213–219	29–41	220–226	42–55	227–350	56–99
8	100–180	<1	181–213	1–22	214–221	23–36	222–228	37–49	229–236	50–65	237–350	66–99

Note. Cut scores for fall and winter are derived from the spring cuts and growth norms based on the typical instructional weeks. Spring cut scores for grade 2 were derived from the grade 3 cuts using the growth norms.

3.5. Classification Accuracy

Table 3.9 presents the classification accuracy summary statistics, including the overall classification accuracy rates. These results indicate how well MAP Growth spring RIT scores predict proficiency on the MAAP tests, providing insight into the predictive validity of MAP Growth. The overall classification accuracy rates range from 0.82 to 0.85 for ELA/reading and 0.85 to 0.87 for mathematics. These values suggest that the RIT cut scores are good at classifying students as proficient or not proficient on the MAAP assessment.

Although the results show that MAP Growth scores can be used to accurately classify students as likely to be proficient on the MAAP tests, there is a notable limitation to how these results should be used and interpreted. MAAP and MAP Growth assessments are designed for different purposes and measure slightly different constructs even within the same content area. Therefore, scores on the two tests cannot be assumed to be interchangeable. MAP Growth may not be used as a substitute for the state tests and vice versa.

Table 3.9. Classification Accuracy Results

Grade	N	Cut Score		Class. Accuracy	Rate		Sensitivity	Specificity	Precision	AUC
		MAP Growth	MAAP		FP	FN				
ELA/Reading										
3	1,402	203	365	0.83	0.13	0.21	0.79	0.87	0.84	0.91
4	1,314	210	465	0.82	0.15	0.22	0.78	0.85	0.81	0.91
5	1,408	218	565	0.84	0.13	0.22	0.78	0.87	0.78	0.92
6	1,265	221	665	0.85	0.12	0.21	0.79	0.88	0.81	0.92
7	1,244	225	765	0.84	0.11	0.25	0.75	0.89	0.79	0.92
8	1,242	228	865	0.85	0.11	0.21	0.79	0.89	0.80	0.93
Mathematics										
3	1,429	204	365	0.85	0.15	0.14	0.86	0.85	0.83	0.94
4	1,352	213	465	0.85	0.14	0.16	0.84	0.86	0.82	0.93
5	1,431	224	565	0.85	0.13	0.19	0.81	0.87	0.77	0.94
6	1,307	225	665	0.87	0.12	0.14	0.86	0.88	0.86	0.95
7	1,248	230	765	0.87	0.10	0.16	0.84	0.90	0.89	0.95
8	1,262	238	865	0.86	0.08	0.22	0.78	0.92	0.88	0.94

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

3.6. Proficiency Projections

Table 3.10 and Table 3.11 present the estimated probability of achieving proficiency (*Proficient* or *Advanced*) performance on the MAAP test based on RIT scores from fall, winter, or spring. For example, a grade 3 student who obtained a MAP Growth reading score of 200 in the fall has a 67% chance of reaching proficiency on the MAAP test. “Prob.” indicates the probability of obtaining proficiency status on the MAAP test in the spring.

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

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
2	5	192	142	No	<0.01	149	No	<0.01	153	No	<0.01
	10	192	148	No	<0.01	155	No	<0.01	159	No	<0.01
	15	192	152	No	<0.01	159	No	<0.01	164	No	<0.01
	20	192	156	No	0.01	162	No	<0.01	167	No	<0.01
	25	192	159	No	0.01	165	No	0.01	170	No	<0.01
	30	192	161	No	0.02	168	No	0.02	173	No	<0.01
	35	192	163	No	0.04	170	No	0.03	175	No	<0.01
	40	192	166	No	0.06	172	No	0.05	177	No	<0.01
	45	192	168	No	0.09	175	No	0.07	180	No	<0.01
	50	192	170	No	0.13	177	No	0.11	182	No	<0.01
	55	192	172	No	0.16	179	No	0.17	184	No	0.01
	60	192	174	No	0.22	181	No	0.2	186	No	0.04
	65	192	177	No	0.33	183	No	0.27	188	No	0.13
	70	192	179	No	0.37	186	No	0.41	191	No	0.39
	75	192	182	Yes	0.5	188	Yes	0.5	193	Yes	0.61
	80	192	184	Yes	0.59	191	Yes	0.59	196	Yes	0.87
	85	192	188	Yes	0.71	194	Yes	0.73	200	Yes	0.99
	90	192	192	Yes	0.84	199	Yes	0.86	204	Yes	>0.99
	95	192	198	Yes	0.94	205	Yes	0.96	210	Yes	>0.99
3	5	203	155	No	<0.01	160	No	<0.01	164	No	<0.01
	10	203	161	No	<0.01	167	No	<0.01	171	No	<0.01
	15	203	166	No	<0.01	171	No	<0.01	175	No	<0.01
	20	203	169	No	<0.01	175	No	<0.01	179	No	<0.01
	25	203	172	No	0.01	178	No	0.01	182	No	<0.01
	30	203	175	No	0.02	180	No	0.02	184	No	<0.01
	35	203	178	No	0.05	183	No	0.04	187	No	<0.01
	40	203	180	No	0.07	185	No	0.05	189	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	45	203	182	No	0.09	188	No	0.09	192	No	<0.01
	50	203	185	No	0.16	190	No	0.14	194	No	0.01
	55	203	187	No	0.22	192	No	0.2	196	No	0.02
	60	203	189	No	0.29	194	No	0.24	198	No	0.08
	65	203	192	No	0.37	197	No	0.36	201	No	0.28
	70	203	194	No	0.46	199	No	0.45	203	Yes	0.5
	75	203	197	Yes	0.54	202	Yes	0.59	206	Yes	0.8
	80	203	200	Yes	0.67	205	Yes	0.68	209	Yes	0.96
	85	203	204	Yes	0.78	209	Yes	0.83	213	Yes	>0.99
	90	203	208	Yes	0.89	213	Yes	0.91	217	Yes	>0.99
	95	203	215	Yes	0.97	220	Yes	0.98	224	Yes	>0.99
4	5	210	166	No	<0.01	170	No	<0.01	173	No	<0.01
	10	210	173	No	<0.01	177	No	<0.01	179	No	<0.01
	15	210	177	No	<0.01	181	No	<0.01	184	No	<0.01
	20	210	181	No	0.01	184	No	<0.01	187	No	<0.01
	25	210	184	No	0.02	187	No	0.01	190	No	<0.01
	30	210	186	No	0.02	190	No	0.02	193	No	<0.01
	35	210	189	No	0.05	193	No	0.04	195	No	<0.01
	40	210	191	No	0.08	195	No	0.07	198	No	<0.01
	45	210	194	No	0.12	197	No	0.1	200	No	<0.01
	50	210	196	No	0.17	199	No	0.16	202	No	0.01
	55	210	198	No	0.24	202	No	0.23	204	No	0.04
	60	210	200	No	0.32	204	No	0.31	207	No	0.2
	65	210	203	No	0.41	206	No	0.4	209	No	0.39
	70	210	205	Yes	0.5	209	Yes	0.55	211	Yes	0.61
	75	210	208	Yes	0.64	211	Yes	0.6	214	Yes	0.87
	80	210	211	Yes	0.72	214	Yes	0.73	217	Yes	0.98
	85	210	215	Yes	0.86	218	Yes	0.87	220	Yes	>0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	90	210	219	Yes	0.92	222	Yes	0.95	225	Yes	>0.99
	95	210	226	Yes	0.98	229	Yes	0.99	231	Yes	>0.99
5	5	218	175	No	<0.01	178	No	<0.01	180	No	<0.01
	10	218	181	No	<0.01	184	No	<0.01	186	No	<0.01
	15	218	186	No	<0.01	189	No	<0.01	191	No	<0.01
	20	218	189	No	<0.01	192	No	<0.01	194	No	<0.01
	25	218	192	No	0.01	195	No	0.01	197	No	<0.01
	30	218	195	No	0.02	197	No	0.01	199	No	<0.01
	35	218	197	No	0.03	200	No	0.03	202	No	<0.01
	40	218	199	No	0.04	202	No	0.05	204	No	<0.01
	45	218	201	No	0.07	204	No	0.06	206	No	<0.01
	50	218	204	No	0.14	206	No	0.1	208	No	<0.01
	55	218	206	No	0.16	209	No	0.18	211	No	0.02
	60	218	208	No	0.23	211	No	0.22	213	No	0.08
	65	218	210	No	0.31	213	No	0.3	215	No	0.2
	70	218	213	No	0.4	215	No	0.4	217	No	0.39
	75	218	215	Yes	0.5	218	Yes	0.55	220	Yes	0.72
	80	218	218	Yes	0.64	221	Yes	0.7	223	Yes	0.92
	85	218	222	Yes	0.77	224	Yes	0.82	226	Yes	0.99
	90	218	226	Yes	0.89	228	Yes	0.92	230	Yes	>0.99
	95	218	232	Yes	0.97	235	Yes	0.99	237	Yes	>0.99
6	5	221	181	No	<0.01	183	No	<0.01	185	No	<0.01
	10	221	187	No	<0.01	189	No	<0.01	191	No	<0.01
	15	221	191	No	<0.01	193	No	<0.01	195	No	<0.01
	20	221	195	No	0.01	197	No	<0.01	198	No	<0.01
	25	221	198	No	0.01	199	No	0.01	201	No	<0.01
	30	221	200	No	0.02	202	No	0.02	203	No	<0.01
	35	221	202	No	0.03	204	No	0.03	206	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	40	221	205	No	0.07	206	No	0.05	208	No	<0.01
	45	221	207	No	0.09	209	No	0.1	210	No	<0.01
	50	221	209	No	0.14	211	No	0.13	212	No	0.01
	55	221	211	No	0.2	213	No	0.19	214	No	0.02
	60	221	213	No	0.27	215	No	0.26	216	No	0.08
	65	221	215	No	0.31	217	No	0.35	218	No	0.2
	70	221	218	No	0.45	219	No	0.45	221	Yes	0.5
	75	221	220	Yes	0.55	222	Yes	0.6	223	Yes	0.72
	80	221	223	Yes	0.69	225	Yes	0.74	226	Yes	0.92
	85	221	226	Yes	0.8	228	Yes	0.84	229	Yes	0.99
	90	221	231	Yes	0.93	232	Yes	0.94	233	Yes	>0.99
	95	221	237	Yes	0.99	238	Yes	0.99	239	Yes	>0.99
7	5	225	185	No	<0.01	186	No	<0.01	187	No	<0.01
	10	225	191	No	<0.01	192	No	<0.01	193	No	<0.01
	15	225	195	No	<0.01	196	No	<0.01	197	No	<0.01
	20	225	198	No	<0.01	200	No	<0.01	201	No	<0.01
	25	225	201	No	0.01	202	No	0.01	203	No	<0.01
	30	225	204	No	0.02	205	No	0.01	206	No	<0.01
	35	225	206	No	0.03	207	No	0.03	208	No	<0.01
	40	225	208	No	0.05	210	No	0.06	211	No	<0.01
	45	225	210	No	0.08	212	No	0.07	213	No	<0.01
	50	225	212	No	0.12	214	No	0.11	215	No	<0.01
	55	225	214	No	0.15	216	No	0.16	217	No	0.01
	60	225	217	No	0.24	218	No	0.23	219	No	0.04
	65	225	219	No	0.32	220	No	0.31	221	No	0.13
	70	225	221	No	0.41	223	No	0.45	224	No	0.39
	75	225	224	Yes	0.55	225	Yes	0.55	226	Yes	0.61
	80	225	226	Yes	0.64	228	Yes	0.69	229	Yes	0.87

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	85	225	230	Yes	0.79	231	Yes	0.8	232	Yes	0.98
	90	225	234	Yes	0.9	235	Yes	0.91	237	Yes	>0.99
	95	225	240	Yes	0.98	241	Yes	0.98	243	Yes	>0.99
	5	228	188	No	<0.01	189	No	<0.01	190	No	<0.01
	10	228	194	No	<0.01	195	No	<0.01	196	No	<0.01
	15	228	198	No	<0.01	199	No	<0.01	200	No	<0.01
	20	228	201	No	<0.01	203	No	<0.01	203	No	<0.01
	25	228	204	No	0.01	205	No	0.01	206	No	<0.01
	30	228	207	No	0.02	208	No	0.02	209	No	<0.01
	35	228	209	No	0.04	210	No	0.03	211	No	<0.01
	40	228	211	No	0.06	213	No	0.05	213	No	<0.01
	45	228	214	No	0.09	215	No	0.08	216	No	<0.01
8	50	228	216	No	0.13	217	No	0.12	218	No	<0.01
	55	228	218	No	0.18	219	No	0.17	220	No	0.01
	60	228	220	No	0.25	221	No	0.24	222	No	0.04
	65	228	222	No	0.33	223	No	0.32	224	No	0.13
	70	228	225	No	0.45	226	No	0.45	227	No	0.39
	75	228	227	Yes	0.55	228	Yes	0.55	229	Yes	0.61
	80	228	230	Yes	0.67	231	Yes	0.68	232	Yes	0.87
	85	228	233	Yes	0.79	235	Yes	0.83	236	Yes	0.99
	90	228	238	Yes	0.91	239	Yes	0.92	240	Yes	>0.99
	95	228	244	Yes	0.98	245	Yes	0.98	246	Yes	>0.99

Table 3.11. Proficiency Projection Based on RIT Scores—Mathematics

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
2	5	195	147	No	<0.01	155	No	<0.01	161	No	<0.01
	10	195	153	No	<0.01	161	No	<0.01	167	No	<0.01
	15	195	157	No	<0.01	165	No	<0.01	171	No	<0.01
	20	195	160	No	0.01	168	No	0.01	174	No	<0.01
	25	195	162	No	0.02	171	No	0.01	177	No	<0.01
	30	195	165	No	0.03	173	No	0.02	179	No	<0.01
	35	195	167	No	0.06	175	No	0.04	181	No	<0.01
	40	195	169	No	0.09	177	No	0.07	183	No	<0.01
	45	195	171	No	0.14	179	No	0.09	185	No	<0.01
	50	195	173	No	0.2	181	No	0.14	187	No	0.01
	55	195	175	No	0.23	183	No	0.21	189	No	0.04
	60	195	177	No	0.31	185	No	0.3	192	No	0.2
	65	195	179	No	0.4	187	No	0.4	194	No	0.39
	70	195	181	Yes	0.5	189	No	0.45	196	Yes	0.61
	75	195	183	Yes	0.6	192	Yes	0.6	198	Yes	0.8
	80	195	186	Yes	0.69	194	Yes	0.7	201	Yes	0.96
	85	195	189	Yes	0.8	197	Yes	0.82	204	Yes	0.99
	90	195	193	Yes	0.89	201	Yes	0.91	208	Yes	>0.99
	95	195	198	Yes	0.97	207	Yes	0.98	214	Yes	>0.99
3	5	206	158	No	<0.01	166	No	<0.01	171	No	<0.01
	10	206	164	No	<0.01	172	No	<0.01	177	No	<0.01
	15	206	168	No	<0.01	176	No	<0.01	181	No	<0.01
	20	206	171	No	0.01	179	No	<0.01	185	No	<0.01
	25	206	174	No	0.01	182	No	0.01	188	No	<0.01
	30	206	176	No	0.03	184	No	0.02	190	No	<0.01
	35	206	178	No	0.05	186	No	0.04	193	No	<0.01
	40	206	180	No	0.08	189	No	0.08	195	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	45	206	182	No	0.13	191	No	0.13	197	No	0.01
	50	206	184	No	0.19	193	No	0.17	199	No	0.02
	55	206	186	No	0.26	195	No	0.24	201	No	0.08
	60	206	188	No	0.35	197	No	0.34	203	No	0.2
	65	206	190	No	0.45	199	No	0.45	206	Yes	0.5
	70	206	192	Yes	0.55	201	Yes	0.55	208	Yes	0.72
	75	206	195	Yes	0.7	204	Yes	0.71	211	Yes	0.92
	80	206	197	Yes	0.78	206	Yes	0.8	213	Yes	0.98
	85	206	200	Yes	0.87	210	Yes	0.89	217	Yes	>0.99
	90	206	204	Yes	0.95	214	Yes	0.96	221	Yes	>0.99
	95	206	210	Yes	0.99	220	Yes	>0.99	227	Yes	>0.99
	5	218	171	No	<0.01	176	No	<0.01	180	No	<0.01
	10	218	177	No	<0.01	183	No	<0.01	187	No	<0.01
	15	218	181	No	<0.01	187	No	<0.01	191	No	<0.01
	20	218	184	No	<0.01	190	No	<0.01	195	No	<0.01
	25	218	186	No	0.01	193	No	<0.01	198	No	<0.01
	30	218	189	No	0.02	196	No	0.01	201	No	<0.01
	35	218	191	No	0.04	198	No	0.02	203	No	<0.01
	40	218	193	No	0.07	200	No	0.04	206	No	<0.01
4	45	218	195	No	0.11	202	No	0.08	208	No	<0.01
	50	218	197	No	0.16	204	No	0.13	210	No	0.01
	55	218	199	No	0.23	207	No	0.24	212	No	0.04
	60	218	201	No	0.31	209	No	0.28	215	No	0.2
	65	218	203	No	0.4	211	No	0.39	217	No	0.39
	70	218	205	Yes	0.5	213	Yes	0.5	220	Yes	0.72
	75	218	208	Yes	0.65	216	Yes	0.67	222	Yes	0.87
	80	218	210	Yes	0.73	219	Yes	0.8	225	Yes	0.98
	85	218	214	Yes	0.87	222	Yes	0.9	229	Yes	>0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	90	218	217	Yes	0.93	226	Yes	0.97	233	Yes	>0.99
	95	218	223	Yes	0.99	232	Yes	>0.99	240	Yes	>0.99
5	5	227	180	No	<0.01	183	No	<0.01	186	No	<0.01
	10	227	185	No	<0.01	189	No	<0.01	192	No	<0.01
	15	227	189	No	<0.01	194	No	<0.01	197	No	<0.01
	20	227	193	No	<0.01	197	No	<0.01	200	No	<0.01
	25	227	195	No	<0.01	200	No	<0.01	204	No	<0.01
	30	227	198	No	0.01	203	No	<0.01	206	No	<0.01
	35	227	200	No	0.01	205	No	0.01	209	No	<0.01
	40	227	202	No	0.03	207	No	0.01	211	No	<0.01
	45	227	204	No	0.05	210	No	0.03	214	No	<0.01
	50	227	206	No	0.08	212	No	0.06	216	No	<0.01
	55	227	208	No	0.12	214	No	0.1	218	No	0.01
	60	227	210	No	0.19	216	No	0.16	221	No	0.04
	65	227	212	No	0.26	219	No	0.28	223	No	0.13
	70	227	215	No	0.4	221	No	0.39	226	No	0.39
	75	227	217	Yes	0.5	224	Yes	0.56	228	Yes	0.61
	80	227	220	Yes	0.65	226	Yes	0.67	232	Yes	0.92
	85	227	223	Yes	0.78	230	Yes	0.84	235	Yes	0.99
	90	227	227	Yes	0.9	234	Yes	0.94	240	Yes	>0.99
	95	227	233	Yes	0.99	240	Yes	0.99	246	Yes	>0.99
6	5	228	184	No	<0.01	187	No	<0.01	190	No	<0.01
	10	228	190	No	<0.01	194	No	<0.01	197	No	<0.01
	15	228	194	No	<0.01	198	No	<0.01	201	No	<0.01
	20	228	197	No	<0.01	201	No	<0.01	205	No	<0.01
	25	228	199	No	0.01	204	No	<0.01	208	No	<0.01
	30	228	202	No	0.02	207	No	0.01	211	No	<0.01
	35	228	204	No	0.04	209	No	0.02	213	No	<0.01

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	40	228	206	No	0.07	212	No	0.05	216	No	<0.01
	45	228	208	No	0.11	214	No	0.09	218	No	<0.01
	50	228	210	No	0.16	216	No	0.14	220	No	0.01
	55	228	212	No	0.23	218	No	0.21	223	No	0.08
	60	228	214	No	0.31	220	No	0.29	225	No	0.2
	65	228	216	No	0.4	223	No	0.45	227	No	0.39
	70	228	219	Yes	0.55	225	Yes	0.55	230	Yes	0.72
	75	228	221	Yes	0.69	228	Yes	0.71	233	Yes	0.92
	80	228	224	Yes	0.81	231	Yes	0.83	236	Yes	0.99
	85	228	227	Yes	0.89	234	Yes	0.91	239	Yes	>0.99
	90	228	231	Yes	0.96	238	Yes	0.97	244	Yes	>0.99
	95	228	237	Yes	0.99	245	Yes	>0.99	251	Yes	>0.99
7	5	232	189	No	<0.01	191	No	<0.01	192	No	<0.01
	10	232	195	No	<0.01	197	No	<0.01	199	No	<0.01
	15	232	199	No	<0.01	202	No	<0.01	204	No	<0.01
	20	232	203	No	<0.01	206	No	<0.01	208	No	<0.01
	25	232	206	No	0.01	209	No	<0.01	211	No	<0.01
	30	232	208	No	0.02	211	No	0.01	214	No	<0.01
	35	232	211	No	0.04	214	No	0.02	216	No	<0.01
	40	232	213	No	0.07	216	No	0.04	219	No	<0.01
	45	232	215	No	0.11	219	No	0.1	221	No	<0.01
	50	232	217	No	0.17	221	No	0.15	224	No	0.01
	55	232	219	No	0.23	223	No	0.22	226	No	0.04
	60	232	222	No	0.36	226	No	0.35	229	No	0.2
	65	232	224	No	0.45	228	No	0.45	231	No	0.39
	70	232	226	Yes	0.55	231	Yes	0.55	234	Yes	0.72
	75	232	229	Yes	0.69	233	Yes	0.65	237	Yes	0.92
	80	232	232	Yes	0.8	236	Yes	0.78	240	Yes	0.99

Grade	Start Percentile	Spring Cut	Fall			Winter			Spring		
			Fall RIT	Projected Proficiency		Winter RIT	Projected Proficiency		Spring RIT	Projected Proficiency	
				Proficient	Prob.		*Proficient*	Prob.		*Proficient*	Prob.
	85	232	235	Yes	0.89	240	Yes	0.9	244	Yes	>0.99
	90	232	239	Yes	0.96	245	Yes	0.98	249	Yes	>0.99
	95	232	246	Yes	0.99	251	Yes	>0.99	256	Yes	>0.99
8	5	242	192	No	<0.01	194	No	<0.01	196	No	<0.01
	10	242	199	No	<0.01	201	No	<0.01	203	No	<0.01
	15	242	203	No	<0.01	206	No	<0.01	208	No	<0.01
	20	242	207	No	<0.01	210	No	<0.01	212	No	<0.01
	25	242	210	No	<0.01	213	No	<0.01	215	No	<0.01
	30	242	212	No	<0.01	216	No	<0.01	218	No	<0.01
	35	242	215	No	0.01	219	No	0.01	221	No	<0.01
	40	242	217	No	0.02	221	No	0.01	224	No	<0.01
	45	242	220	No	0.04	224	No	0.03	226	No	<0.01
	50	242	222	No	0.07	226	No	0.05	229	No	<0.01
	55	242	224	No	0.1	228	No	0.08	231	No	<0.01
	60	242	227	No	0.18	231	No	0.16	234	No	0.01
	65	242	229	No	0.25	233	No	0.23	237	No	0.08
	70	242	232	No	0.37	236	No	0.35	239	No	0.2
	75	242	234	No	0.45	239	No	0.45	242	Yes	0.5
	80	242	237	Yes	0.59	242	Yes	0.6	246	Yes	0.87
	85	242	241	Yes	0.75	246	Yes	0.77	250	Yes	0.99
	90	242	246	Yes	0.9	251	Yes	0.92	255	Yes	>0.99
	95	242	252	Yes	0.97	258	Yes	0.99	262	Yes	>0.99

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