

2018 Linking Study: Predicting Performance on SC READY from NWEA MAP Growth

February 2018

NWEA Psychometric Solutions

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Executive Summary

This study produced a set of cut scores on MAP® Growth™ Reading and Mathematics for Grades K–8 that correspond to the South Carolina College- and Career-Ready (SC READY) English Language Arts (ELA) and Mathematics performance levels for each grade, as shown in Table E.1 and Table E.2. Bolded numbers indicate the cut scores considered to be at least “proficient” for accountability purposes (i.e., “meets” grade level). This study also used the 2015 NWEA norming study results to project a student’s probability to meet proficiency based on that student’s prior MAP Growth scores in fall and winter.

By using matched score data from a sample of South Carolina students, the study demonstrates that MAP Growth scores can accurately predict whether a student would reach proficiency on SC READY based on his or her MAP Growth scores, as shown by the classification accuracy statistics. The overall classification accuracy rate ranges from 0.84–0.85 for ELA/Reading and 0.86–0.89 for Mathematics. These values suggest that the MAP Growth cuts for each content area and grade are good predictors of the students’ proficiency status on the SC READY test. For Grades K–2, the classification accuracy rate refers to how well the MAP Growth cuts can predict students’ proficiency status on the SC READY test in Grade 3. Consequently, the further back from Grade 3 that the cut scores were extrapolated, the lower the expected classification accuracy rate.

Table E.1. MAP Growth Cut Scores Corresponding to SC READY Scores when MAP Growth is taken in Spring—ELA/Reading

SC READY ELA								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
3	100–358		359–451		452–539		540–825	
4	100–418		419–508		509–592		593–850	
5	100–449		450–557		558–652		653–875	
6	100–454		455–575		576–667		668–900	
7	100–511		512–614		615–704		705–925	
8	100–537		538–642		643–737		738–950	
MAP Growth Reading								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile
K**	100–149	1–25	150–161	26–60	162–171	61–85	172–350	86–99
1**	100–167	1–24	168–181	25–60	182–192	61–84	193–350	85–99
2**	100–178	1–25	179–193	26–62	194–204	63–85	205–350	86–99
3	100–188	1–25	189–203	26–62	204–214	63–85	215–350	86–99
4	100–198	1–30	199–211	31–64	212–221	65–85	222–350	86–99
5	100–203	1–28	204–218	29–67	219–228	68–87	229–350	88–99
6	100–204	1–22	205–220	23–62	221–230	63–84	231–350	85–99
7	100–210	1–30	211–224	31–66	225–235	67–87	236–350	88–99
8	100–213	1–33	214–227	34–68	228–238	69–87	239–350	88–99

*Bolded numbers indicate the cut scores considered to be at least “proficient” for accountability purposes (i.e., “meets” grade level).

**Spring cut scores were extrapolated from the Grade 3 cohort using 2015 MAP Growth norms.

Table E.2. MAP Growth Cut Scores Corresponding to SC READY Scores when MAP Growth is taken in Spring—Mathematics

SC READY Mathematics								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
3	100–359		360–437		438–543		544–825	
4	100–401		402–481		482–562		563–850	
5	100–447		448–535		536–621		622–875	
6	100–453		454–542		543–627		628–900	
7	100–487		488–577		578–649		650–925	
8	100–526		527–614		615–683		684–950	
MAP Growth Mathematics								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile
K**	100–146	1–17	147–156	18–42	157–168	43–75	169–350	76–99
1**	100–167	1–16	168–178	17–43	179–190	44–76	191–350	77–99
2**	100–179	1–17	180–189	18–42	190–201	43–75	202–350	76–99
3	100–190	1–17	191–201	18–44	202–213	45–76	214–350	77–99
4	100–199	1–17	200–213	18–50	214–224	51–76	225–350	77–99
5	100–208	1–21	209–224	22–57	225–236	58–82	237–350	83–99
6	100–209	1–17	210–225	18–50	226–237	51–76	238–350	77–99
7	100–216	1–24	217–234	25–63	235–245	64–83	246–350	84–99
8	100–221	1–31	222–239	32–67	240–250	68–84	251–350	85–99

*Bolted numbers indicate the cut scores considered to be at least “proficient” for accountability purposes (i.e., “meets” grade level).

**Spring cut scores were extrapolated from the Grade 3 cohort using 2015 MAP Growth norms.

The results of this study can help educators predict student performance on SC READY tests as early as possible and identify students at risk of failing to meet required standards so they can receive the necessary resources and assistance to meet their goals. However, some caution should be taken when using this information:

1. The tables provide information about scores on different tests that measure slightly different constructs. Therefore, the scores cannot be assumed to be interchangeable.
2. The sample data used in this study were collected from 292 schools in South Carolina. Caution should be exercised when generalizing the results to students who differ significantly in characteristics from this sample.
3. Caution should be exercised if the linked scores are used for a subpopulation with sample sizes less than 1,000 within a grade and subject.

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 the MAP® Growth™ interim assessment scores. One important use of MAP Growth for educators is to predict a student's performance on the state summative assessment at different points in time throughout the academic 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 document presents results from a linking study conducted by NWEA in February 2018 to statistically connect the scales of the South Carolina College- and Career-Ready (SC READY) assessments with those of the MAP Growth assessments taken during the Spring 2017 term. Specifically, this report presents the following:

- The cut scores on the MAP Growth Reading and Mathematics scales for Grades 3–8 that correspond to the benchmarks on the SC READY ELA and Mathematics tests.
- The cut scores on the MAP Growth Reading and Mathematics scales for Grades K–2 that are extrapolated from the current Grade 3 cohort using the 2015 MAP Growth norms.
- The classification accuracy summary statistics based on the estimated MAP Growth cut scores.
- The probability of meeting or exceeding grade-level proficiency on the SC READY assessments based on the observed MAP Growth scores taken during different terms in the same school year.

1.2. Assessment Overview

1.2.1. South Carolina College- and Career-Ready (SC READY)

SC READY assessments include a series of achievement tests aligned to the South Carolina College- and Career-Ready Standards administered to students in Grades 3–8 in ELA and Mathematics. In 2017, the SC READY tests were delivered online as well as in a paper-pencil form. For each grade and content area, there are four cut scores that distinguish between performance levels: Level 1: Does Not Meet Expectations, Level 2: Approaches Expectations, Level 3: Meets Expectations, and Level 4: Exceeds Expectations. The Level 3 cut score demarks the minimum level of performance considered to be “proficient” for accountability purposes.

1.2.2. MAP Growth

MAP Growth tests are computer adaptive interim assessments aligned to the South Carolina College- and Career-Ready Standards. The tests used for this study are Reading and Mathematics. The MAP Growth Reading assessments are comparable to the SC READY ELA assessments. MAP Growth scores are reported on a vertical scale with a range of 100–350 in Rasch Unit (RIT). Each content area has its own scale. To aid interpretation of MAP Growth scores, NWEA periodically conducts norming studies of student and school performance on MAP Growth. The recent MAP Growth norming study by Thum & Hauser (2015) employed multi-level growth models on nearly 500,000 longitudinal test scores from over 100,000 students that were weighted to create large, nationally representative norms.

2. Methods

2.1. Data Collection

This linking study was based on data from the SC READY and MAP Growth assessments taken during Spring 2017. South Carolina school districts were recruited by NWEA's Research Data Services team to participate in the study by sharing their student and score data for the target term. Districts also gave NWEA permission to access students' associated MAP Growth scores from NWEA's in-house database. NWEA makes every effort to maximize district participation so that results can be robust and representative of all students taking the SC READY assessment.

Once SC READY score information was received by participating districts, each student's SC READY record was matched to their MAP Growth score. Matching was performed using the student's first and last names, date of birth, student ID, and other available identifying information. The final study sample included students for whom both SC READY and MAP Growth scores were available.

2.2. Equipercentile Linking Procedure

The equipercentile procedure (e.g., Kolen & Brennan, 2004) was used to link SC READY and MAP Growth scores. This procedure matches scores on the two scales that have the same percetile rank (i.e., the proportion of tests at or below each score).

Consider the linked scores between two tests. Let x represent a score on Test X (e.g., SC READY). 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 in Equation 1:

$$e_y(x) = G^{-1}[P(x)] \quad (1)$$

where $e_y(x)$ is the equipercentile equivalent of score x on SC READY on the scale of MAP Growth, $P(x)$ is the percetile rank of a given score on Test X , and G^{-1} is the inverse of the percetile rank function for Test Y that indicates the score on Test Y corresponding to a given percetile. Polynomial loglinear pre-smoothing was applied to reduce irregularities of the score distributions and equipercentile linking curve.

Spring cuts for Grades K–2 were extrapolated from the current Grade 3 student cohort. Using NWEA's 2015 MAP Growth norms data, the previous grade's spring scores were determined by obtaining the score that corresponds to the same percetile rank as the current Grade 3 cuts.

2.3. Classification Accuracy Summary Statistics

The degree to which MAP Growth tests accurately predict student proficiency status on SC READY tests can be described using classification accuracy statistics, which are important indicators for evaluating reliability and validity of classification results. Table 2.1 displays a list of classification accuracy statistics that are provided for MAP Growth as it relates to the SC READY test for each content area and grade.

Table 2.1. Description of the Classification Accuracy Data Associated with MAP Growth and SC READY Assessments

Classification Accuracy Statistic	Description	Interpretation
Overall Classification Accuracy Rate	$(TP + TN) / (\text{total sample size})$	The proportion of students in the study sample whose proficiency classification on the state test was correctly predicted by MAP Growth cut scores (Pommerich, Hanson, Harris, & Scoring, 2004).
Sensitivity	$TP / (TP + FN)$	The proportion of proficient students who were correctly identified on the MAP Growth test as such.
Specificity	$TN / (TN + FP)$	The proportion of below-proficient students who were correctly identified on the MAP Growth test as such.
False Negative Rate	$FN / (FN + TP)$	The proportion of proficient students who were incorrectly predicted by MAP Growth test to be below proficiency.
False Positive Rate	$FP / (FP + TN)$	The proportion of below-proficient students who were incorrectly predicted by MAP Growth test to be proficient.
Area Under the Curve (AUC)	Area under the 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.

*TN = true negatives. FP = false positives. FN = false negatives. TP = true positives. ROC = receiver operating characteristics.

2.4. Proficiency Projection

MAP Growth conditional growth norms provide students’ expected score gains across testing seasons (Thum & Hauser, 2015). This information was used to estimate the previous fall and winter terms’ MAP Growth scores that would meet the spring cut, considering the growth that is expected of the previous term’s RIT value. Additionally, the growth norms data were used to calculate the probability of reaching proficiency on the SC READY test based on the student’s MAP Growth scores from prior terms.

Equation 2 was used to determine the fall or winter MAP Growth score needed to reach the spring cut score, considering the expected growth associated with the previous RIT score:

$$RIT_{SpringCut} = RIT_{previous} + g \quad (2)$$

where $RIT_{SpringCut}$ is the MAP Growth spring cut, $RIT_{previous}$ is the unknown fall or winter RIT score, and g is the expected growth from fall or winter to spring corresponding to $RIT_{previous}$.

Equation 3 was used to calculate the probability of a student achieving Level 3 (“meets” grade level) on SC READY based on his or her fall or winter MAP Growth score:

$$Pr(\text{Achieving Level 3 in spring} | \text{starting RIT}) = \Phi \left(\frac{RIT_{previous} + g - RIT_{SpringCut}}{SD} \right) \quad (3)$$

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 fall or winter to spring corresponding to that previous RIT, $RIT_{SpringCut}$ is the MAP Growth Level 3 cut score for spring, and SD is the conditional standard deviation of growth from fall or winter to spring.

Equation 4 was used to estimate the probability of a student achieving Level 3 on the SC READY test based on his or her spring score RIT_{Spring} :

$$Pr(\text{Achieving Level 3 in spring} \mid \text{spring RIT}) = \Phi\left(\frac{RIT_{Spring} - RIT_{SpringCut}}{SE}\right) \quad (4)$$

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

3. Results and Discussion

3.1. Study Sample

A total of 292 schools across 21 districts in South Carolina participated in this linking study. Table 3.1 provides the demographics of the study sample. For all content areas, more than half of students were White, followed by 6–8% Hispanic, 26–29% Black, and less than 2% Asian/Pacific Islander (Asian/PI) or American Indian/Alaska Native (AI/AN). Males made up slightly more of the study sample than females. The sample demographics are reasonably representative of the state.

Table 3.1. Demographics of the Study Sample

Content Area	Grade	N	Race/Ethnicity*						Gender	
			White	Hispanic	Black	Asian/PI	AI/AN	Other/MR	Female	Male
ELA/Reading	3	15,018	57.1%	7.3%	29.1%	1.3%	0.4%	4.8%	48.1%	51.9%
	4	16,203	57.6%	7.4%	27.5%	1.5%	0.3%	5.7%	48.1%	51.9%
	5	15,783	58.4%	7.3%	27.1%	1.4%	0.4%	5.4%	49.2%	50.7%
	6	15,333	59.4%	7.0%	27.2%	1.5%	0.4%	4.6%	49.3%	50.7%
	7	14,928	60.7%	6.6%	26.2%	1.6%	0.4%	4.6%	48.7%	51.3%
	8	14,245	60.2%	6.2%	27.3%	1.5%	0.4%	4.4%	49.3%	50.7%
Mathematics	3	15,037	57.1%	7.4%	29.1%	1.3%	0.4%	4.8%	48.1%	51.8%
	4	16,285	57.5%	7.5%	27.5%	1.5%	0.4%	5.7%	48.0%	51.9%
	5	15,796	58.4%	7.4%	27.0%	1.4%	0.4%	5.4%	49.3%	50.7%
	6	15,366	59.3%	7.0%	27.2%	1.5%	0.4%	4.6%	49.3%	50.7%
	7	14,953	60.5%	6.7%	26.1%	1.6%	0.4%	4.6%	48.7%	51.3%
	8	14,118	60.0%	6.4%	27.3%	1.5%	0.4%	4.4%	49.2%	50.8%

*Asian/PI = Asian/Pacific Islander. AI/AN = American Indian/Alaska Native. Other/MR = Other/Multi-Race.

3.2. Descriptive Statistics

Table 3.2 provides descriptive statistics of the SC READY and MAP Growth scores for Spring 2017, including the correlation coefficient (r) between the two scales. As shown in the table, the correlation coefficients between MAP Growth and SC READY test scores range from 0.82 to 0.85 for ELA/Reading and 0.85 to 0.87 for Mathematics. In general, these correlations can be considered criterion-related validity evidence between MAP Growth and SC READY content area assessments. These results indicate that the relationship between MAP Growth and SC READY test scores is strong.

Table 3.2. Descriptive Statistics of SC READY Scale Scores and MAP Growth Scores from the Study Sample

Content Area	Grade	N	<i>r</i>	SC READY				MAP Growth			
				Mean	SD	Min.	Max.	Mean	SD	Min.	Max.
ELA/ Reading	3	15,018	0.85	437.4	99.1	170	825	199.7	15.9	120	245
	4	16,203	0.84	488.6	104.4	154	850	207.2	15.7	143	251
	5	15,783	0.82	532.6	108.5	129	875	213.6	15.4	139	259
	6	15,333	0.83	553.8	110.6	256	900	216.3	15.5	145	261
	7	14,928	0.82	591.5	104.1	313	925	220.4	15.6	139	268
	8	14,245	0.83	624.3	110.9	318	950	224.0	15.5	146	274
Mathematics	3	15,037	0.86	461.3	113.8	132	825	203.2	14.3	125	265
	4	16,285	0.85	491.9	105.8	210	850	212.9	15.6	138	297
	5	15,796	0.85	536.5	109.8	252	875	222.1	17.3	131	286
	6	15,366	0.86	548.1	115.4	114	900	223.3	16.9	144	314
	7	14,953	0.87	564.4	102.4	318	925	229.4	18.2	139	299
	8	14,118	0.87	599.6	107.2	301	950	234.0	19.4	148	318

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

3.3. MAP Growth Cut Scores from Equipercntile Linking

Table 3.3 – Table 3.5 present the SC READY scale scores for each performance level and the corresponding MAP Growth scores (obtained from equipercntile linking) and percentile ranges for ELA and Mathematics, respectively.

Additionally, as a result of the Read to Succeed Act that requires Grade 3 students to demonstrate reading proficiency by year end, South Carolina educators passed additional performance level cut score documentation in February 2017. The purpose of this differentiation was to identify students performing at the lowest reading level and earmark them for additional assistance through the summer reading program. Table 3.4 shows these additional levels to the cut scores for Grade 3 ELA. Student scores in the Not Met 1 performance level “substantially fail to demonstrate third-grade reading proficiency” by the end of the third grade. These scores represent the lowest achievement level on the Grade 3 SC READY assessment (DRC, 2017).

These tables can be used to predict a student’s likely performance level on the SC READY assessment when MAP Growth is taken in the spring. For example, a Grade 6 student who obtained a MAP Growth Reading score of 225 in the spring is likely to be at Level 3 (Meets) on the SC READY taken during that same testing season (see Table 3.3).

Table 3.3. Linkage of Performance Level Score Ranges between SC READY and MAP Growth when MAP Growth is taken in Spring—ELA/Reading

SC READY ELA				
Grade	Level 1: Does Not Meet	Level 2: Approaches	Level 3: Meets*	Level 4: Exceeds
3	100–358	359–451	452–539	540–825
4	100–418	419–508	509–592	593–850
5	100–449	450–557	558–652	653–875
6	100–454	455–575	576–667	668–900
7	100–511	512–614	615–704	705–925
8	100–537	538–642	643–737	738–950

MAP Growth Reading								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile
K**	100–149	1–25	150–161	26–60	162–171	61–85	172–350	86–99
1**	100–167	1–24	168–181	25–60	182–192	61–84	193–350	85–99
2**	100–178	1–25	179–193	26–62	194–204	63–85	205–350	86–99
3	100–188	1–25	189–203	26–62	204–214	63–85	215–350	86–99
4	100–198	1–30	199–211	31–64	212–221	65–85	222–350	86–99
5	100–203	1–28	204–218	29–67	219–228	68–87	229–350	88–99
6	100–204	1–22	205–220	23–62	221–230	63–84	231–350	85–99
7	100–210	1–30	211–224	31–66	225–235	67–87	236–350	88–99
8	100–213	1–33	214–227	34–68	228–238	69–87	239–350	88–99

*Bolted numbers indicate the cut scores considered to be at least “proficient” for accountability purposes (i.e., “meets” grade level).

** Spring cut scores were extrapolated from the Grade 3 cohort using 2015 MAP Growth norms.

Table 3.4. Linkage of Performance for Grade 3 Level 1 Read to Succeed Program Score Ranges between SC READY and MAP Growth when MAP Growth is taken in Spring—ELA/Reading

SC READY ELA				
Grade	Level 1: Not Met 1		Level 1: Above Not Met 1	
3	100–275		276–358	

MAP Growth Reading				
Grade	Level 1: Not Met 1		Level 1: Above Not Met 1	
	RIT	Percentile	RIT	Percentile
K*	100–133	1–2	134–149	3–25
1*	100–149	1–2	150–167	3–24
2*	100–159	1–2	160–178	3–25
3	100–170	1–2	171–188	3–25

*Spring cut scores were extrapolated from the Grade 3 cohort using 2015 MAP Growth norms.

Table 3.5. Linkage of Performance Level Score Ranges between SC READY and MAP Growth when MAP Growth is taken in Spring—Mathematics

SC READY Mathematics									
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds		
3	100–359		360–437		438–543		544–825		
4	100–401		402–481		482–562		563–850		
5	100–447		448–535		536–621		622–875		
6	100–453		454–542		543–627		628–900		
7	100–487		488–577		578–649		650–925		
8	100–526		527–614		615–683		684–950		
MAP Growth Mathematics									
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds		
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile	
K**	100–146	1–17	147–156	18–42	157–168	43–75	169–350	76–99	
1**	100–167	1–16	168–178	17–43	179–190	44–76	191–350	77–99	
2**	100–179	1–17	180–189	18–42	190–201	43–75	202–350	76–99	
3	100–190	1–17	191–201	18–44	202–213	45–76	214–350	77–99	
4	100–199	1–17	200–213	18–50	214–224	51–76	225–350	77–99	
5	100–208	1–21	209–224	22–57	225–236	58–82	237–350	83–99	
6	100–209	1–17	210–225	18–50	226–237	51–76	238–350	77–99	
7	100–216	1–24	217–234	25–63	235–245	64–83	246–350	84–99	
8	100–221	1–31	222–239	32–67	240–250	68–84	251–350	85–99	

*Bolted numbers indicate the cut scores considered to be at least “proficient” for accountability purposes (i.e., “meets” grade level).

**Spring cut scores were extrapolated from the Grade 3 cohort using 2015 MAP Growth norms.

3.4. Classification Accuracy Summary Statistics

Table 3.6 presents the overall classification accuracy rate, sensitivity, specificity, false positive rate, false negative rate, and area under the ROC curve (AUC). These summary statistics provide insight into the predictive validity of MAP Growth tests on the SC READY test. The overall classification accuracy rate ranges from 0.84 to 0.85 for ELA/Reading and 0.86 to 0.89 for Mathematics. These values suggest that the MAP Growth cuts for each content area and grade are good predictors of the students’ proficiency status on the SC READY test. For Grades K–2, the classification accuracy rate refers to how well the MAP Growth cuts shown can predict students’ proficiency status on the SC READY test in Grade 3. Consequently, the further back from Grade 3 that the cut scores were extrapolated, the lower the expected classification accuracy rate.

Table 3.6. Classification Accuracy Summary Statistics for MAP Growth and SC Ready Level 3 (Meets) Proficiency for Grades K–8 Students

ELA/Reading*									
Grade	Sample Size	Cut Score		Class. Accuracy*	Rate		Sensitivity	Specificity	AUC*
		MAP Growth	SC READY		FP*	FN*			
K**	6,076	162	n/a	0.75	0.25	0.25	0.76	0.75	0.83
1**	9,807	182	n/a	0.81	0.17	0.22	0.78	0.83	0.89
2**	13,235	194	n/a	0.82	0.17	0.19	0.81	0.84	0.90
3	15,018	204	452	0.85	0.14	0.16	0.84	0.86	0.93
4	16,203	212	509	0.85	0.13	0.19	0.81	0.87	0.93
5	15,783	219	558	0.85	0.12	0.20	0.80	0.88	0.93
6	15,333	221	576	0.85	0.13	0.18	0.82	0.87	0.93
7	14,928	225	615	0.85	0.14	0.16	0.84	0.86	0.93
8	14,245	228	643	0.84	0.14	0.18	0.82	0.86	0.93

Mathematics*									
Grade	Sample Size	Cut Score		Class. Accuracy*	Rate		Sensitivity	Specificity	AUC*
		MAP Growth	SC Ready		FP*	FN*			
K**	5,761	157	n/a	0.72	0.51	0.09	0.92	0.49	0.83
1**	10,065	179	n/a	0.78	0.34	0.12	0.89	0.66	0.88
2**	13,230	190	n/a	0.83	0.21	0.15	0.85	0.79	0.91
3	15,037	202	438	0.86	0.17	0.11	0.89	0.83	0.94
4	16,285	214	482	0.87	0.14	0.12	0.88	0.86	0.94
5	15,796	225	536	0.87	0.14	0.12	0.88	0.86	0.95
6	15,366	226	543	0.87	0.13	0.13	0.87	0.87	0.95
7	14,953	235	578	0.89	0.10	0.13	0.87	0.90	0.96
8	14,118	240	615	0.88	0.09	0.17	0.83	0.91	0.95

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

**Spring cut scores were extrapolated from the Grade 3 cohort using 2015 MAP Growth norms.

3.5. Proficiency Projections

Table 3.7 – Table 3.9 present the SC READY scale scores for each performance level and the corresponding MAP Growth scores and percentile ranges applied to MAP Growth tests taken in fall or winter prior to the testing season. These tables can be used to predict a student’s likely performance level on the SC READY assessment when MAP Growth is taken in fall or winter. For example, a Grade 3 student who obtained a MAP Growth Reading score of 200 in the fall is likely to be at Level 3 (Meets) on the SC READY taken in the spring (see Table 3.7).

Table 3.7. Projection of Performance Level Score Ranges between SC READY and MAP Growth when MAP Growth is taken in Fall or Winter—ELA/Reading

SC READY ELA								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
3	100–358		359–451		452–539		540–825	
4	100–418		419–508		509–592		593–850	
5	100–449		450–557		558–652		653–875	
6	100–454		455–575		576–667		668–900	
7	100–511		512–614		615–704		705–925	
8	100–537		538–642		643–737		738–950	
MAP Growth Reading (Fall)								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile
K	100–129	1–21	130–145	20–62	146–158	63–90	159–350	91–99
1	100–149	1–21	150–164	20–61	165–176	62–88	177–350	89–99
2	100–162	1–21	163–180	22–64	181–193	65–88	194–350	89–99
3	100–176	1–22	177–194	23–65	195–207	66–88	208–350	89–99
4	100–189	1–28	190–204	29–65	205–216	66–88	217–350	89–99
5	100–196	1–27	197–213	28–69	214–225	70–90	226–350	91–99
6	100–197	1–18	198–216	19–64	217–228	65–87	229–350	88–99
7	100–205	1–27	206–221	28–67	222–233	68–89	234–350	90–99
8	100–209	1–31	210–225	32–70	226–236	71–88	237–350	89–99
MAP Growth Reading (Winter)								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile
K	100–141	1–21	142–154	22–59	155–165	60–86	166–350	87–99
1	100–161	1–22	162–175	23–61	176–186	62–86	187–350	87–99
2	100–173	1–23	174–189	24–63	190–200	64–86	201–350	87–99
3	100–184	1–23	185–200	24–62	201–212	63–86	213–350	87–99
4	100–195	1–29	196–209	30–65	210–220	66–87	221–350	88–99
5	100–201	1–28	202–216	29–67	217–227	68–88	228–350	89–99
6	100–202	1–21	203–219	22–64	220–229	65–85	230–350	86–99
7	100–208	1–28	209–223	29–66	224–234	67–87	235–350	88–99
8	100–212	1–33	213–226	34–68	227–237	69–88	238–350	89–99

*Bolted numbers indicate the cut scores considered to be at least “proficient” for accountability purposes (i.e., “meets” grade level).

Table 3.8. Projection of Performance for Grade 3 Level 1 Read to Succeed Program Score Ranges between SC READY and MAP Growth when MAP Growth is taken in Fall or Winter—ELA/Reading

SC READY ELA				
Grade	Level 1: Not Met 1		Level 1: Above Not Met 1	
3	100–275		276–358	
MAP Growth Reading (Fall)				
Grade	Level 1: Not Met 1		Level 1: Above Not Met 1	
	RIT	Percentile	RIT	Percentile
K	100–115	1–2	116–129	3–19
1	100–135	1–2	136–149	3–19
2	100–145	1–2	146–162	3–21
3	100–157	1–2	158–176	3–22
MAP Growth Reading (Winter)				
Grade	Level 1: Not Met 1		Level 1: Above Not Met 1	
	RIT	Percentile	RIT	Percentile
K	100–126	1–2	127–141	3–21
1	100–145	1–2	146–161	3–22
2	100–155	1–2	156–173	3–23
3	100–166	1–2	167–184	3–23

Table 3.9. Projection of Performance Level Score Ranges between SC READY and MAP Growth when MAP Growth is taken in Fall or Winter—Mathematics

SC READY Mathematics								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
3	100–359		360–437		438–543		544–825	
4	100–401		402–481		482–562		563–850	
5	100–447		448–535		536–621		622–875	
6	100–453		454–542		543–627		628–900	
7	100–487		488–577		578–649		650–925	
8	100–526		527–614		615–683		684–950	
MAP Growth Mathematics (Fall)								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile
K	100–123	1–13	124–136	14–40	137–151	41–77	152–350	78–99
1	100–147	1–12	148–159	13–41	160–173	42–80	174–350	81–99
2	100–162	1–13	163–173	14–39	174–187	40–78	188–350	79–99
3	100–176	1–14	177–188	15–44	189–201	45–80	202–350	81–99
4	100–187	1–14	188–201	15–48	202–213	49–79	214–350	80–99
5	100–198	1–18	199–214	19–58	215–226	59–84	227–350	85–99
6	100–201	1–14	202–217	15–49	218–229	50–77	230–350	78–99
7	100–210	1–23	211–228	24–63	229–239	64–84	240–350	85–99
8	100–216	1–29	217–235	30–69	236–246	70–87	247–350	88–99
MAP Growth Mathematics (Winter)								
Grade	Level 1: Does Not Meet		Level 2: Approaches		Level 3: Meets*		Level 4: Exceeds	
	RIT	Percentile	RIT	Percentile	RIT*	Percentile	RIT	Percentile
K	100–137	1–15	138–148	16–41	149–161	42–76	162–350	77–99
1	100–160	1–15	161–171	16–42	172–183	43–77	184–350	78–99
2	100–173	1–16	174–183	17–41	184–196	42–77	197–350	78–99
3	100–184	1–15	185–196	16–44	197–208	45–78	209–350	79–99
4	100–194	1–15	195–208	16–49	209–219	50–77	220–350	78–99
5	100–204	1–20	205–220	21–58	221–232	59–84	233–350	85–99
6	100–206	1–16	207–222	17–51	223–234	52–78	235–350	79–99
7	100–214	1–24	215–232	25–64	233–243	65–84	244–350	85–99
8	100–219	1–29	220–237	30–67	238–248	68–85	249–350	86–99

*Bolted numbers indicate the cut scores considered to be at least “proficient” for accountability purposes (i.e., “meets” grade level).

Table 3.10 – Table 3.12 are probability tables that tell how likely a student is classified as “proficient” on the SC READY tests based on his or her observed MAP Growth scores from the spring, fall, or winter terms. The conditional growth norms provided in the 2015 MAP Growth norms report were used to calculate this information (Thum & Hauser, 2015). For example, a Grade 3 student who obtained a MAP Growth Mathematics score of 201 in the fall has a 96% chance of reaching Level 3 or higher on the SC READY test in the spring (see Table 3.12).

Table 3.10 presents the estimated probability of meeting the Level 3 benchmark when MAP Growth is taken in the spring, whereas Table 3.11 and Table 3.12 present the estimated probability of meeting the Level 3 benchmark when MAP Growth is taken in the fall or winter prior to taking the SC READY tests.

Table 3.10. Proficiency Projection and Probability for Passing SC READY Level 3 (Meets) when MAP Growth is taken in the Spring

Grade	Start Percentile	ELA/Reading				Mathematics			
		Spring RIT	Projected Proficiency			Spring RIT	Projected Proficiency		
			Cut Score	Level 3	Prob.*		Cut Score	Level 3	Prob.*
2	5	164	194	No	<0.01	170	190	No	<0.01
	10	169	194	No	<0.01	175	190	No	<0.01
	15	173	194	No	<0.01	178	190	No	<0.01
	20	176	194	No	<0.01	181	190	No	<0.01
	25	178	194	No	<0.01	183	190	No	0.01
	30	181	194	No	<0.01	185	190	No	0.04
	35	183	194	No	<0.01	187	190	No	0.15
	40	185	194	No	<0.01	189	190	No	0.37
	45	187	194	No	0.01	190	190	Yes	0.50
	50	189	194	No	0.06	192	190	Yes	0.76
	55	191	194	No	0.17	194	190	Yes	0.92
	60	193	194	No	0.38	196	190	Yes	0.98
	65	195	194	Yes	0.62	197	190	Yes	0.99
	70	197	194	Yes	0.83	199	190	Yes	>0.99
	75	199	194	Yes	0.94	201	190	Yes	>0.99
	80	201	194	Yes	0.99	204	190	Yes	>0.99
	85	204	194	Yes	>0.99	206	190	Yes	>0.99
90	208	194	Yes	>0.99	209	190	Yes	>0.99	
95	214	194	Yes	>0.99	214	190	Yes	>0.99	

Grade	Start Percentile	ELA/Reading				Mathematics			
		Spring RIT	Projected Proficiency			Spring RIT	Projected Proficiency		
			Cut Score	Level 3	Prob.*		Cut Score	Level 3	Prob.*
3	5	174	204	No	<0.01	181	202	No	<0.01
	10	179	204	No	<0.01	186	202	No	<0.01
	15	183	204	No	<0.01	189	202	No	<0.01
	20	186	204	No	<0.01	192	202	No	<0.01
	25	188	204	No	<0.01	194	202	No	<0.01
	30	191	204	No	<0.01	196	202	No	0.02
	35	193	204	No	<0.01	198	202	No	0.08
	40	195	204	No	<0.01	200	202	No	0.25
	45	197	204	No	0.01	202	202	Yes	0.50
	50	199	204	No	0.06	203	202	Yes	0.64
	55	201	204	No	0.17	205	202	Yes	0.85
	60	202	204	No	0.27	207	202	Yes	0.96
	65	204	204	Yes	0.50	209	202	Yes	0.99
	70	207	204	Yes	0.83	211	202	Yes	>0.99
	75	209	204	Yes	0.94	213	202	Yes	>0.99
	80	211	204	Yes	0.99	215	202	Yes	>0.99
	85	214	204	Yes	>0.99	218	202	Yes	>0.99
90	218	204	Yes	>0.99	221	202	Yes	>0.99	
95	223	204	Yes	>0.99	226	202	Yes	>0.99	
4	5	181	212	No	<0.01	189	214	No	<0.01
	10	187	212	No	<0.01	194	214	No	<0.01
	15	190	212	No	<0.01	198	214	No	<0.01
	20	193	212	No	<0.01	201	214	No	<0.01
	25	196	212	No	<0.01	203	214	No	<0.01
	30	198	212	No	<0.01	206	214	No	<0.01
	35	200	212	No	<0.01	208	214	No	0.02
	40	202	212	No	<0.01	210	214	No	0.08
	45	204	212	No	0.01	212	214	No	0.25
	50	206	212	No	0.03	213	214	No	0.37
	55	208	212	No	0.11	215	214	Yes	0.64
	60	210	212	No	0.27	217	214	Yes	0.85
	65	212	212	Yes	0.50	219	214	Yes	0.96
	70	214	212	Yes	0.73	221	214	Yes	0.99
	75	216	212	Yes	0.89	224	214	Yes	>0.99
	80	218	212	Yes	0.97	226	214	Yes	>0.99
	85	221	212	Yes	>0.99	229	214	Yes	>0.99
90	225	212	Yes	>0.99	233	214	Yes	>0.99	
95	230	212	Yes	>0.99	238	214	Yes	>0.99	

Grade	Start Percentile	ELA/Reading				Mathematics			
		Spring RIT	Projected Proficiency			Spring RIT	Projected Proficiency		
			Cut Score	Level 3	Prob.*		Cut Score	Level 3	Prob.*
5	5	188	219	No	<0.01	195	225	No	<0.01
	10	193	219	No	<0.01	201	225	No	<0.01
	15	197	219	No	<0.01	205	225	No	<0.01
	20	199	219	No	<0.01	208	225	No	<0.01
	25	202	219	No	<0.01	210	225	No	<0.01
	30	204	219	No	<0.01	213	225	No	<0.01
	35	206	219	No	<0.01	215	225	No	<0.01
	40	208	219	No	<0.01	217	225	No	<0.01
	45	210	219	No	<0.01	219	225	No	0.02
	50	212	219	No	0.01	221	225	No	0.08
	55	214	219	No	0.06	223	225	No	0.25
	60	216	219	No	0.17	225	225	Yes	0.50
	65	217	219	No	0.27	228	225	Yes	0.85
	70	220	219	Yes	0.62	230	225	Yes	0.96
	75	222	219	Yes	0.83	232	225	Yes	0.99
	80	224	219	Yes	0.94	235	225	Yes	>0.99
	85	227	219	Yes	0.99	238	225	Yes	>0.99
90	231	219	Yes	>0.99	242	225	Yes	>0.99	
95	236	219	Yes	>0.99	248	225	Yes	>0.99	
6	5	192	221	No	<0.01	198	226	No	<0.01
	10	197	221	No	<0.01	204	226	No	<0.01
	15	201	221	No	<0.01	208	226	No	<0.01
	20	203	221	No	<0.01	211	226	No	<0.01
	25	206	221	No	<0.01	214	226	No	<0.01
	30	208	221	No	<0.01	217	226	No	<0.01
	35	210	221	No	<0.01	219	226	No	0.01
	40	212	221	No	<0.01	221	226	No	0.04
	45	214	221	No	0.01	223	226	No	0.15
	50	216	221	No	0.06	225	226	No	0.37
	55	218	221	No	0.17	227	226	Yes	0.64
	60	219	221	No	0.27	230	226	Yes	0.92
	65	221	221	Yes	0.50	232	226	Yes	0.98
	70	223	221	Yes	0.73	234	226	Yes	>0.99
	75	226	221	Yes	0.94	237	226	Yes	>0.99
	80	228	221	Yes	0.99	239	226	Yes	>0.99
	85	231	221	Yes	>0.99	243	226	Yes	>0.99
90	235	221	Yes	>0.99	247	226	Yes	>0.99	
95	240	221	Yes	>0.99	253	226	Yes	>0.99	

Grade	Start Percentile	ELA/Reading				Mathematics			
		Spring RIT	Projected Proficiency			Spring RIT	Projected Proficiency		
			Cut Score	Level 3	Prob.*		Cut Score	Level 3	Prob.*
7	5	193	225	No	<0.01	199	235	No	<0.01
	10	199	225	No	<0.01	206	235	No	<0.01
	15	202	225	No	<0.01	210	235	No	<0.01
	20	205	225	No	<0.01	214	235	No	<0.01
	25	208	225	No	<0.01	217	235	No	<0.01
	30	210	225	No	<0.01	219	235	No	<0.01
	35	212	225	No	<0.01	222	235	No	<0.01
	40	214	225	No	<0.01	224	235	No	<0.01
	45	216	225	No	<0.01	226	235	No	<0.01
	50	218	225	No	0.01	229	235	No	0.02
	55	220	225	No	0.06	231	235	No	0.08
	60	222	225	No	0.17	233	235	No	0.25
	65	224	225	No	0.38	235	235	Yes	0.50
	70	226	225	Yes	0.62	238	235	Yes	0.85
	75	228	225	Yes	0.83	241	235	Yes	0.98
	80	231	225	Yes	0.97	244	235	Yes	>0.99
	85	234	225	Yes	>0.99	247	235	Yes	>0.99
90	238	225	Yes	>0.99	251	235	Yes	>0.99	
95	243	225	Yes	>0.99	258	235	Yes	>0.99	
8	5	194	228	No	<0.01	199	240	No	<0.01
	10	200	228	No	<0.01	206	240	No	<0.01
	15	204	228	No	<0.01	211	240	No	<0.01
	20	207	228	No	<0.01	215	240	No	<0.01
	25	209	228	No	<0.01	218	240	No	<0.01
	30	212	228	No	<0.01	221	240	No	<0.01
	35	214	228	No	<0.01	224	240	No	<0.01
	40	216	228	No	<0.01	226	240	No	<0.01
	45	218	228	No	<0.01	229	240	No	<0.01
	50	220	228	No	0.01	231	240	No	<0.01
	55	222	228	No	0.03	233	240	No	0.01
	60	224	228	No	0.11	236	240	No	0.08
	65	226	228	No	0.27	238	240	No	0.25
	70	228	228	Yes	0.50	241	240	Yes	0.64
	75	231	228	Yes	0.83	244	240	Yes	0.92
	80	233	228	Yes	0.94	247	240	Yes	0.99
	85	236	228	Yes	0.99	251	240	Yes	>0.99
90	240	228	Yes	>0.99	255	240	Yes	>0.99	
95	246	228	Yes	>0.99	262	240	Yes	>0.99	

*Prob. = Probability of obtaining "proficient" status in the SC READY test in the spring.

Table 3.11. Proficiency Projection and Probability for Passing SC READY Level 3 (Meets) in Spring when MAP Growth is taken in the Fall or Winter—ELA/Reading

Grade	Start Percentile	ELA/Reading (Fall)				ELA/Reading (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
2	5	149	194	No	<0.01	160	194	No	<0.01
	10	155	194	No	<0.01	165	194	No	<0.01
	15	159	194	No	0.01	169	194	No	<0.01
	20	162	194	No	0.02	172	194	No	<0.01
	25	164	194	No	0.04	174	194	No	<0.01
	30	167	194	No	0.06	176	194	No	0.01
	35	169	194	No	0.10	178	194	No	0.02
	40	171	194	No	0.15	180	194	No	0.05
	45	173	194	No	0.19	182	194	No	0.10
	50	175	194	No	0.26	184	194	No	0.18
	55	177	194	No	0.35	186	194	No	0.23
	60	179	194	No	0.40	188	194	No	0.36
	65	181	194	Yes	0.50	190	194	Yes	0.50
	70	183	194	Yes	0.60	192	194	Yes	0.64
	75	185	194	Yes	0.65	194	194	Yes	0.77
	80	188	194	Yes	0.78	197	194	Yes	0.90
	85	191	194	Yes	0.85	200	194	Yes	0.97
90	195	194	Yes	0.94	203	194	Yes	0.99	
95	200	194	Yes	0.98	209	194	Yes	>0.99	
3	5	162	204	No	<0.01	171	204	No	<0.01
	10	168	204	No	<0.01	176	204	No	<0.01
	15	172	204	No	<0.01	180	204	No	<0.01
	20	175	204	No	0.01	183	204	No	<0.01
	25	178	204	No	0.03	185	204	No	<0.01
	30	180	204	No	0.05	188	204	No	0.01
	35	182	204	No	0.06	190	204	No	0.02
	40	184	204	No	0.10	192	204	No	0.04
	45	186	204	No	0.16	194	204	No	0.09
	50	188	204	No	0.20	196	204	No	0.17
	55	190	204	No	0.29	198	204	No	0.28
	60	192	204	No	0.39	199	204	No	0.35
	65	194	204	No	0.44	201	204	Yes	0.50
	70	197	204	Yes	0.61	204	204	Yes	0.65
	75	199	204	Yes	0.71	206	204	Yes	0.78
	80	202	204	Yes	0.80	208	204	Yes	0.87
	85	205	204	Yes	0.90	211	204	Yes	0.96
90	209	204	Yes	0.95	215	204	Yes	0.99	
95	214	204	Yes	0.99	221	204	Yes	>0.99	

Grade	Start Percentile	ELA/Reading (Fall)				ELA/Reading (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
4	5	173	212	No	<0.01	179	212	No	<0.01
	10	178	212	No	<0.01	184	212	No	<0.01
	15	182	212	No	<0.01	188	212	No	<0.01
	20	185	212	No	0.01	191	212	No	<0.01
	25	188	212	No	0.01	194	212	No	<0.01
	30	190	212	No	0.03	196	212	No	0.01
	35	192	212	No	0.05	198	212	No	0.02
	40	194	212	No	0.07	200	212	No	0.04
	45	196	212	No	0.12	202	212	No	0.06
	50	198	212	No	0.19	204	212	No	0.12
	55	200	212	No	0.28	205	212	No	0.16
	60	202	212	No	0.33	207	212	No	0.28
	65	204	212	No	0.44	209	212	No	0.42
	70	206	212	Yes	0.56	211	212	Yes	0.58
	75	209	212	Yes	0.67	214	212	Yes	0.78
	80	211	212	Yes	0.77	216	212	Yes	0.88
	85	214	212	Yes	0.88	219	212	Yes	0.94
90	218	212	Yes	0.95	223	212	Yes	0.99	
95	224	212	Yes	0.99	228	212	Yes	>0.99	
5	5	181	219	No	<0.01	186	219	No	<0.01
	10	186	219	No	<0.01	191	219	No	<0.01
	15	190	219	No	<0.01	195	219	No	<0.01
	20	193	219	No	<0.01	197	219	No	<0.01
	25	195	219	No	0.01	200	219	No	<0.01
	30	198	219	No	0.02	202	219	No	<0.01
	35	200	219	No	0.04	204	219	No	0.01
	40	202	219	No	0.07	206	219	No	0.02
	45	204	219	No	0.09	208	219	No	0.04
	50	206	219	No	0.15	210	219	No	0.09
	55	208	219	No	0.23	212	219	No	0.17
	60	210	219	No	0.33	214	219	No	0.28
	65	212	219	No	0.38	215	219	No	0.35
	70	214	219	Yes	0.50	218	219	Yes	0.50
	75	216	219	Yes	0.62	220	219	Yes	0.65
	80	218	219	Yes	0.67	222	219	Yes	0.78
	85	221	219	Yes	0.81	225	219	Yes	0.91
90	225	219	Yes	0.91	229	219	Yes	0.98	
95	231	219	Yes	0.99	234	219	Yes	>0.99	

Grade	Start Percentile	ELA/Reading (Fall)				ELA/Reading (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
6	5	186	221	No	<0.01	190	221	No	<0.01
	10	192	221	No	<0.01	196	221	No	<0.01
	15	196	221	No	<0.01	199	221	No	<0.01
	20	198	221	No	0.01	202	221	No	<0.01
	25	201	221	No	0.02	204	221	No	<0.01
	30	203	221	No	0.04	207	221	No	0.01
	35	205	221	No	0.07	209	221	No	0.03
	40	207	221	No	0.10	211	221	No	0.06
	45	209	221	No	0.16	212	221	No	0.09
	50	211	221	No	0.23	214	221	No	0.17
	55	213	221	No	0.28	216	221	No	0.22
	60	215	221	No	0.39	218	221	No	0.35
	65	217	221	Yes	0.50	220	221	Yes	0.50
	70	219	221	Yes	0.61	222	221	Yes	0.65
	75	221	221	Yes	0.67	224	221	Yes	0.78
	80	224	221	Yes	0.81	226	221	Yes	0.88
	85	226	221	Yes	0.88	229	221	Yes	0.96
90	230	221	Yes	0.94	233	221	Yes	0.99	
95	236	221	Yes	0.99	238	221	Yes	>0.99	
7	5	189	225	No	<0.01	192	225	No	<0.01
	10	195	225	No	<0.01	198	225	No	<0.01
	15	199	225	No	<0.01	201	225	No	<0.01
	20	202	225	No	<0.01	204	225	No	<0.01
	25	204	225	No	0.01	207	225	No	<0.01
	30	206	225	No	0.02	209	225	No	<0.01
	35	209	225	No	0.04	211	225	No	0.01
	40	211	225	No	0.07	213	225	No	0.02
	45	213	225	No	0.12	215	225	No	0.04
	50	214	225	No	0.15	217	225	No	0.09
	55	216	225	No	0.23	219	225	No	0.17
	60	218	225	No	0.28	221	225	No	0.28
	65	220	225	No	0.39	223	225	No	0.42
	70	222	225	Yes	0.50	225	225	Yes	0.58
	75	225	225	Yes	0.61	227	225	Yes	0.72
	80	227	225	Yes	0.72	230	225	Yes	0.88
	85	230	225	Yes	0.85	232	225	Yes	0.94
90	234	225	Yes	0.95	236	225	Yes	0.99	
95	240	225	Yes	0.99	242	225	Yes	>0.99	

Grade	Start Percentile	ELA/Reading (Fall)				ELA/Reading (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
8	5	191	228	No	<0.01	194	228	No	<0.01
	10	197	228	No	<0.01	199	228	No	<0.01
	15	201	228	No	<0.01	203	228	No	<0.01
	20	204	228	No	0.01	206	228	No	<0.01
	25	207	228	No	0.02	209	228	No	<0.01
	30	209	228	No	0.03	211	228	No	<0.01
	35	211	228	No	0.05	213	228	No	0.01
	40	213	228	No	0.06	215	228	No	0.01
	45	215	228	No	0.10	217	228	No	0.03
	50	217	228	No	0.16	219	228	No	0.07
	55	219	228	No	0.22	221	228	No	0.14
	60	221	228	No	0.26	223	228	No	0.23
	65	223	228	No	0.35	225	228	No	0.36
	70	225	228	No	0.45	227	228	Yes	0.50
	75	228	228	Yes	0.60	229	228	Yes	0.64
	80	230	228	Yes	0.69	232	228	Yes	0.82
	85	234	228	Yes	0.84	235	228	Yes	0.93
90	237	228	Yes	0.92	239	228	Yes	0.99	
95	243	228	Yes	0.98	244	228	Yes	>0.99	

*Prob. = Probability of obtaining "proficient" status in the SC READY test in the spring.

Table 3.12. Proficiency Projection and Probability for Passing SC READY Level 3 (Meets) in Spring when MAP Growth is taken in the Fall or Winter—Mathematics

Grade	Start Percentile	Mathematics (Fall)				Mathematics (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
2	5	155	190	No	0.01	165	190	No	<0.01
	10	160	190	No	0.03	170	190	No	<0.01
	15	163	190	No	0.07	173	190	No	0.01
	20	166	190	No	0.16	175	190	No	0.03
	25	168	190	No	0.19	178	190	No	0.11
	30	170	190	No	0.28	180	190	No	0.21
	35	172	190	No	0.39	181	190	No	0.27
	40	174	190	Yes	0.49	183	190	No	0.42
	45	175	190	Yes	0.50	185	190	Yes	0.58
	50	177	190	Yes	0.61	186	190	Yes	0.66
	55	179	190	Yes	0.72	188	190	Yes	0.79
	60	180	190	Yes	0.76	190	190	Yes	0.89
	65	182	190	Yes	0.84	191	190	Yes	0.92
	70	184	190	Yes	0.88	193	190	Yes	0.95
	75	186	190	Yes	0.93	195	190	Yes	0.98
	80	188	190	Yes	0.96	197	190	Yes	0.99
	85	191	190	Yes	0.98	200	190	Yes	>0.99
90	194	190	Yes	0.99	203	190	Yes	>0.99	
95	199	190	Yes	>0.99	208	190	Yes	>0.99	
3	5	169	202	No	<0.01	176	202	No	<0.01
	10	174	202	No	0.01	181	202	No	<0.01
	15	177	202	No	0.04	184	202	No	0.01
	20	179	202	No	0.08	187	202	No	0.02
	25	182	202	No	0.17	189	202	No	0.05
	30	184	202	No	0.22	191	202	No	0.10
	35	185	202	No	0.27	193	202	No	0.20
	40	187	202	No	0.38	195	202	No	0.34
	45	189	202	Yes	0.50	197	202	Yes	0.50
	50	190	202	Yes	0.56	198	202	Yes	0.58
	55	192	202	Yes	0.68	200	202	Yes	0.74
	60	194	202	Yes	0.78	202	202	Yes	0.86
	65	195	202	Yes	0.83	203	202	Yes	0.90
	70	197	202	Yes	0.89	205	202	Yes	0.95
	75	199	202	Yes	0.92	207	202	Yes	0.98
	80	201	202	Yes	0.96	209	202	Yes	0.99
	85	204	202	Yes	0.99	212	202	Yes	>0.99
90	207	202	Yes	>0.99	215	202	Yes	>0.99	
95	212	202	Yes	>0.99	220	202	Yes	>0.99	

Grade	Start Percentile	Mathematics (Fall)				Mathematics (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
4	5	179	214	No	<0.01	185	214	No	<0.01
	10	184	214	No	<0.01	190	214	No	<0.01
	15	188	214	No	0.01	194	214	No	<0.01
	20	190	214	No	0.03	197	214	No	0.01
	25	193	214	No	0.08	199	214	No	0.02
	30	195	214	No	0.14	201	214	No	0.04
	35	197	214	No	0.22	203	214	No	0.10
	40	198	214	No	0.27	205	214	No	0.20
	45	200	214	No	0.38	207	214	No	0.34
	50	202	214	Yes	0.50	209	214	Yes	0.50
	55	204	214	Yes	0.62	211	214	Yes	0.66
	60	205	214	Yes	0.62	212	214	Yes	0.74
	65	207	214	Yes	0.73	214	214	Yes	0.86
	70	209	214	Yes	0.83	216	214	Yes	0.93
	75	211	214	Yes	0.89	218	214	Yes	0.97
	80	214	214	Yes	0.96	221	214	Yes	0.99
	85	216	214	Yes	0.98	223	214	Yes	>0.99
90	220	214	Yes	>0.99	227	214	Yes	>0.99	
95	225	214	Yes	>0.99	232	214	Yes	>0.99	
5	5	187	225	No	<0.01	192	225	No	<0.01
	10	193	225	No	<0.01	198	225	No	<0.01
	15	196	225	No	<0.01	201	225	No	<0.01
	20	199	225	No	0.01	204	225	No	<0.01
	25	202	225	No	0.03	207	225	No	<0.01
	30	204	225	No	0.05	209	225	No	0.01
	35	206	225	No	0.09	211	225	No	0.02
	40	208	225	No	0.15	213	225	No	0.05
	45	210	225	No	0.23	215	225	No	0.11
	50	211	225	No	0.28	217	225	No	0.20
	55	213	225	No	0.38	219	225	No	0.34
	60	215	225	Yes	0.50	221	225	Yes	0.50
	65	217	225	Yes	0.62	223	225	Yes	0.66
	70	219	225	Yes	0.72	225	225	Yes	0.80
	75	221	225	Yes	0.81	228	225	Yes	0.93
	80	224	225	Yes	0.91	230	225	Yes	0.97
	85	227	225	Yes	0.96	233	225	Yes	0.99
90	230	225	Yes	0.99	237	225	Yes	>0.99	
95	236	225	Yes	>0.99	242	225	Yes	>0.99	

Grade	Start Percentile	Mathematics (Fall)				Mathematics (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
6	5	192	226	No	<0.01	196	226	No	<0.01
	10	198	226	No	<0.01	202	226	No	<0.01
	15	202	226	No	0.01	205	226	No	<0.01
	20	205	226	No	0.03	209	226	No	<0.01
	25	207	226	No	0.05	211	226	No	0.01
	30	209	226	No	0.09	214	226	No	0.03
	35	212	226	No	0.19	216	226	No	0.07
	40	214	226	No	0.28	218	226	No	0.15
	45	216	226	No	0.38	220	226	No	0.27
	50	218	226	Yes	0.50	222	226	No	0.42
	55	220	226	Yes	0.62	224	226	Yes	0.58
	60	222	226	Yes	0.72	226	226	Yes	0.73
	65	224	226	Yes	0.81	228	226	Yes	0.85
	70	226	226	Yes	0.88	230	226	Yes	0.93
	75	228	226	Yes	0.93	233	226	Yes	0.98
	80	231	226	Yes	0.96	236	226	Yes	>0.99
	85	234	226	Yes	0.99	239	226	Yes	>0.99
90	238	226	Yes	>0.99	243	226	Yes	>0.99	
95	243	226	Yes	>0.99	248	226	Yes	>0.99	
7	5	195	235	No	<0.01	198	235	No	<0.01
	10	201	235	No	<0.01	204	235	No	<0.01
	15	205	235	No	<0.01	208	235	No	<0.01
	20	209	235	No	<0.01	212	235	No	<0.01
	25	211	235	No	<0.01	215	235	No	<0.01
	30	214	235	No	0.01	217	235	No	<0.01
	35	216	235	No	0.02	220	235	No	<0.01
	40	218	235	No	0.05	222	235	No	0.01
	45	221	235	No	0.11	224	235	No	0.03
	50	223	235	No	0.18	226	235	No	0.07
	55	225	235	No	0.27	228	235	No	0.15
	60	227	235	No	0.38	230	235	No	0.26
	65	229	235	Yes	0.50	233	235	Yes	0.50
	70	231	235	Yes	0.62	235	235	Yes	0.66
	75	234	235	Yes	0.78	238	235	Yes	0.85
	80	237	235	Yes	0.89	240	235	Yes	0.93
	85	240	235	Yes	0.95	244	235	Yes	0.99
90	244	235	Yes	0.99	248	235	Yes	>0.99	
95	250	235	Yes	>0.99	254	235	Yes	>0.99	

Grade	Start Percentile	Mathematics (Fall)				Mathematics (Winter)			
		Fall RIT	Projected Proficiency			Winter RIT	Projected Proficiency		
			Spring Cut	Level 3	Prob.*		Spring Cut	Level 3	Prob.*
8	5	197	240	No	<0.01	199	240	No	<0.01
	10	203	240	No	<0.01	206	240	No	<0.01
	15	208	240	No	<0.01	210	240	No	<0.01
	20	211	240	No	<0.01	214	240	No	<0.01
	25	214	240	No	<0.01	217	240	No	<0.01
	30	217	240	No	0.01	220	240	No	<0.01
	35	219	240	No	0.02	222	240	No	<0.01
	40	222	240	No	0.04	225	240	No	<0.01
	45	224	240	No	0.08	227	240	No	0.01
	50	226	240	No	0.12	229	240	No	0.04
	55	229	240	No	0.22	231	240	No	0.08
	60	231	240	No	0.30	234	240	No	0.21
	65	233	240	No	0.35	236	240	No	0.35
	70	236	240	Yes	0.50	239	240	Yes	0.58
	75	238	240	Yes	0.60	241	240	Yes	0.72
	80	241	240	Yes	0.74	245	240	Yes	0.92
	85	245	240	Yes	0.88	248	240	Yes	0.98
90	249	240	Yes	0.96	253	240	Yes	>0.99	
95	256	240	Yes	>0.99	259	240	Yes	>0.99	

*Prob. = Probability of obtaining "proficient" status in the SC READY test in the spring.

4. References

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