



SCHOOL BOARD ACTION REPORT

DATE: May 25, 2020
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For Introduction: June 24, 2020
For Action: July 8, 2020

1. TITLE

Approval of contract with Northwest Education Association (NWEA) to increase Measures of Academic Progress (MAP) testing and professional development

2. PURPOSE

This Board Action Report proposes an increase in MAP licenses and professional development to ensure there are common assessments in English Language Arts (ELA) and Mathematics in grade levels 1-8, which will result in a cost of \$425,000 for the 2020-21 school year.

3. RECOMMENDED MOTION

I move that the School Board authorize the Superintendent to execute a contract with Northwest Education Association (NWEA) in the amount of \$425,000.00 for 2020-21, in the form of the draft agreement and attached to the School Board Action Report, with any minor additions, deletions, and modifications deemed necessary by the Superintendent, and to take any necessary actions to implement the contract.

4. BACKGROUND INFORMATION

a. Background

In recent years, MAP has been required district-wide for students in grades K-2. With focused professional development, some schools had begun to use MAP data in informing tiered supports for their students. There has been no district-wide use of MAP in grades 3-8.

The 2019-24 Strategic Plan, *Seattle Excellence*, established a literacy goal that students furthest from educational justice (SSFFEJ) read on grade level by 3rd grade. The key performance indicator of this goal would be proficiency on the 3rd grade ELA Smarter Balanced Assessment (SBA). Since there is no consistent district-wide use of MAP in the fall, and as MAP is predictive of proficiency on the spring Smarter Balanced Assessment, the SEA/SPS Assessment Committee discussed and agreed upon expanding the district-wide MAP requirement to include 3rd grade. Administering the MAP to all 3rd graders in the fall would provide data essential in early identification of those students in need of

tiered supports and progress monitoring in order to read on grade level by the 3rd grade. Fall MAP data would also provide additional data points for teachers to provide to parents during fall conferences.

Once schools were closed and summative tests were cancelled due to COVID-19, it became apparent to the SEA/SPS Assessment Committee in the April committee meeting that a larger expansion of MAP assessments in the fall would need to be considered. The absence of summative (MAP and/or SBA) annual assessment data resulted in a lack of individual student and subgroup data. The lack of individual student and subgroup summative data presents a unique dilemma for school leaders, building leadership teams (BLTs) and Multi-Tiered Student Support teams in developing a plan for tiered student supports and resources for the 2020-2021 school year.

Historically, due to the availability of spring assessment data, Seattle Public Schools has not administered a district-wide fall assessment to students in grades 1-8. We do not anticipate the Smarter Balanced Assessment (SBA) to be available for fall administration except for high school students to meet a graduation pathway. A fall administration of the MAP test to students in grades 1-8 is a viable solution to the current dilemma. The MAP test will provide valid and reliable data, is relatively short, is predictive of SBA proficiency*, has embedded accommodations and modifications if needed, and data is available within 24 hours.

Administering the MAP test to all students in grades 1-8 in the fall will establish a baseline data point that will measure student learning loss (if applicable) and provide guidance in developing instructional strategies, plans, and tiered supports for all students.

*This applies to students in grades 3-8. More information around predictiveness will be provided in the Research section and attached report.

b. Alternatives

Alternative #1-

Keep district-wide MAP requirements the same: students in grades 1 & 2 will be required to take MAP in the spring. Kindergarten students will take MAP in the winter. A requirement of all 3rd graders to take MAP in the fall would be added. This alternative is not recommended due to its weak alignment to goals in the 2019-24 *Seattle Excellence* Strategic Plan. Specifically, this alternative does not address the lack of math data for students in 5th and 7th grades, a goal of *Seattle Excellence*.

Alternative #2-

All students in grades 1-5 test in the fall: This alternative is not recommended due to its weak alignment to the goals in the 2019-24 *Seattle Excellence* Strategic Plan, specifically the lack of math data for students in grade 7.

Most importantly, both alternatives fail to address the absence of student-level summative data at all grade levels 1-8. This lack of data could result in uninformed decision-making around resource allocation, instructional plans, and tiered supports.

c. Research

NWEA has developed a concordance table between MAP and state summative assessments. This tool can be used to make inferences from MAP Growth scores. NWEA completed a concordance study to connect the scales of English Language Arts (ELA) and math Smarter Balanced Assessment (SBA) with those of the MAP Growth reading and math assessments.

In the attached report, NWEA presents the 3rd through 8th grade cut scores on MAP Growth reading and math scales that correspond to the benchmarks on the Smarter Balanced ELA and math tests. Information about classification accuracy of the estimated MAP Growth cut scores is also provided. In short, MAP Growth reading scores accurately predicted ELA proficiency on Smarter Balanced about 84% whereas MAP Growth math scores accurately predicted Smarter Balanced math proficiency about 88% of the time. This information is represented graphically in a series of tables that estimate the probability of meeting proficiency (a Level 3 or higher score) on the Smarter Balanced assessments, based on the observed MAP Growth scores taken during the same school year.

Historically, students most likely to not meet grade level proficiency as measured by Common Core State Standards are our students furthest from educational justice (SFFEJ). This assessment and its predictive nature will quickly identify students in need of support. Common assessment baseline data will ensure that building-based and programmatic (Special Education and ELL) decisions and resource allocation (e.g. instructional materials, support in core instruction, intervention groups, support staff assignment) are data-driven and student-centered.

5. FISCAL IMPACT/REVENUE SOURCE

Fiscal impact to this action will be \$425,000.

The revenue source for this motion is Department of Technology Services (DoTS)

Expenditure: One-time Annual Multi-Year N/A

Revenue: One-time Annual Multi-Year N/A

6. COMMUNITY ENGAGEMENT

With guidance from the District’s Community Engagement tool, this action was determined to merit the following tier of community engagement:

Not applicable

Tier 1: Inform

Tier 2: Consult/Involve

Tier 3: Collaborate

The proposal to expand the use of MAP in Seattle Public Schools was approved by the joint SEA/SPS Assessment Committee on April 23, 2020. Tier 3 community engagement with families and staff will be an expectation as the district introduces required MAP administration in the fall.

During student conferences and curricular nights, families will be provided MAP Growth student and family reports. These reports inform families of their student's achievement in ELA and math, areas of strengths/weakness, likelihood of meeting proficiency on the state summative assessment, and outlines ways to support their students at home.

7. EQUITY ANALYSIS

Using the SPS COVID-19 Racial Equity Analysis Tool, the following have been identified as next steps:

Convene a work group with MTSS Learning Support Teams, Family and Community Engagement, the Department of African American Male Achievement, and Student Support Services to develop a process to identify ways to best engage our families of students furthest from educational justice.

The Assessment Department will work closely with central office leadership to provide strategies to school leaders and educators to identify the needs for students furthest from educational justice. Central office will continue to periodically meet and support and work with stakeholders (school leaders, teachers, MTSS committees, PLCs, and families) in using data to prioritize needs and identify barriers to meeting those needs.

The Assessment department will work with DREA, Department of African American Male Achievement, Student Supports Services, and Schools and Continuous Improvement to develop and provide communication to stakeholders that outlines the benefits and possible unintended consequences of administering MAP in the fall. Communication will be developed and provided before the fall administration.

Intentional coordination across central office stakeholders (ELL, Special Education, Title I, Satterberg, ELA and Math teams, Student Support Services, MTSS teams) is needed to continue to align professional development and supports.

Expanding the contract will fund the administration of a common assessment for all students in grades 1-8. This data will be used when making data-driven building level decisions, ensuring equitable access to services and tiered supports and will support targeted universalism in all schools.

This extra funding will also support the professional development essential to ensure high-quality, standards-based instruction and appropriate tiered supports and resources for all students regardless of race, socioeconomic status, English Language proficiency and gender.

Professional development will ensure that school leaders and staff are informed and knowledgeable in the following:

- The purpose of the test: a low-stakes assessment that will be used to establish a baseline and inform building-based systems and supports.
- Equitable test practices: specific to accommodations and supports for students with IEPs, 504, or receiving ELL services.
- Reading and utilizing data reports to ensure equitable access to services (i.e. special education, English language learners, and highly capable), resource allocation, instructional plans and implement tiered supports for all students- especially at our high poverty schools.
- Effective family engagement practices and MAP Growth Student and Family Reports.

The approved contract will support the collaboration between central office and NWEA Professional Learning Consultants. These consultants will help tailor a professional learning plan to meet the distinctive needs of SPS schools, staff, and students.

8. STUDENT BENEFIT

In executing this contract, all schools (elementary and K-8) will have baseline data to determine supports for their students and ensure equitable access to services. This contract will also allow for robust professional development for educators on using data to inform high-quality, standards-based instruction, address specific student academic needs and inform tiered and programmatic (Special Education, ELL) supports for their students. Common assessment data will inform the allocation of resources and decisions around student supports.

9. WHY BOARD ACTION IS NECESSARY

- Amount of contract initial value or contract amendment exceeds \$250,000 (Policy No. 6220)
- Amount of grant exceeds \$250,000 in a single fiscal year (Policy No. 6114)
- Adopting, amending, or repealing a Board policy
- Formally accepting the completion of a public works project and closing out the contract
- Legal requirement for the School Board to take action on this matter
- Board Policy No. _____, [TITLE], provides the Board shall approve this item
- Other: _____

10. POLICY IMPLICATION

Per Policy No. 6220, *Procurement*, all contracts for more than \$250,000 initial value, excluding sales tax and contingencies, and changes or amendments of more than \$250,000, excluding sales tax and contingencies, must be approved by the School Board.

Per Policy No. 2080, *Assessment*, “The Board of Directors of Seattle Public Schools, in alignment with Policy No. 0010, Instructional Philosophy, believes that assessments are a critical component of our education system used to inform instruction through identification of student strengths, assessment of learning growth, and diagnosis of barriers and areas of support.” This motion is in compliance with this policy and the accompanying Superintendent Procedure.

11. BOARD COMMITTEE RECOMMENDATION

This motion was discussed at the Curriculum & Instruction Policy Committee meeting on June 9, 2020. The Committee reviewed the motion and moved the item forward with a recommendation for approval by the full Board.

12. TIMELINE FOR IMPLEMENTATION

July

- Develop professional development plan in partnership with NWEA Professional Learning Consultant.
- Communicate logistics to MAP coordinators and school leaders.
- Engage with Community- Working with Family and Community Partnerships to reach out to our Community Based Partners to provide workshops to families (i.e. Somali Community Services, Chinese Information and Service Center, El Centro de la Raza).
- Develop strategies to position schools and educators to identify the needs for students furthest from educational justice. Work with stakeholders in using data to prioritize needs and identify barriers to meeting those needs.
- Develop and provide communication to stakeholders that outlines the benefits and recommendations for a fall MAP administration.
- A communication plan will be implemented to notify district employees, families and students about any newly approved assessments prior to implementation.

August

- Provide Essential Reports for Leaders training
- Develop strategies to position schools and educators to identify the needs for students furthest from educational justice. Work with stakeholders in using data to prioritize needs and identify barriers to meeting those needs.
- Develop and provide communication to stakeholders that outlines the benefits and recommendations for a fall MAP administration.
- Post online professional development specific to test administration (proctoring, setting accommodations, practice tests, family engagement).
- Engage with Community- Working with Family and Community Partnership to reach out to our Community Based Partners to provide workshops to families (i.e. Somali Community Services, Chinese Information and Service Center, El Centro de la Raza).

September- October

- Administer the assessments
- Provide online professional development- reports, using data to inform instruction and tiered supports, family engagement.

- Engage the Community-

Working with Family and Community Partnerships to reach out to our Community Based Partners to provide workshops to families (i.e. Somali Community Services, Chinese Information and Service Center, El Centro de la Raza).

Using data, connect with specific community-based organizations that offer academic supports (Seattle Housing Authority, Boys and Girls Clubs, after school programs, City Year).

November

- Convene student conferences (wraparound support if needed for family and student reports).

November- December

- Provide online professional development for Kindergarten teachers specific to test administration (proctoring, setting accommodations, practice tests, family engagement).
- Engage the Community- Using data, connect with specific community-based organizations that offer academic supports (Seattle Housing Authority, Boys and Girls Clubs, after school programs, City Year)

January-February

- Administer the winter assessments
- Provide online professional development for Kindergarten teachers- reports, using data to inform instruction and tiered supports, family engagement.

March-April

- Provide online professional development- reports, using data to inform instruction and tiered supports.

May-June

- Administer the spring assessments
- Provide professional development for teachers and leaders
- Engage the Community -Using data, connect with specific community-based organizations that offer academic supports (Seattle Housing Authority, Boys and Girls Clubs, after school programs, City Year).
- Evaluate with Accountability
 - With Research and Evaluation, develop a plan to evaluate work
 - Adjust work based on feedback
 - Communication plan for this work 2020-21

June-July

- Engage in planning and develop communication plan for 2021-22
- Engage the Community- Final meeting with Community Based Partners to evaluate our work in 2020-21 and plan for 2021-22.

All year- Ongoing collaboration and trainings for Learning Support Teams supporting schools.

13. ATTACHMENTS

- Seattle Public Schools and NWEA Partnership Proposal (for approval)
- Report: Linking the Smarter Balanced Assessments to NWEA MAP Assessments (for reference)
- Policy No. 2080, Assessment (for reference)



2020-21 Seattle Public Schools (SPS) and Northwest Evaluation Association (NWEA) Project Proposal

Seattle Public Schools is committed to making its online information accessible and usable to all people, regardless of ability or technology. Meeting web accessibility guidelines and standards is an ongoing process that we are consistently working to improve.

While Seattle Public Schools endeavors to only post documents optimized for accessibility, due to the nature and complexity of some documents, an accessible version of the document may not be available. In these limited circumstances, the District will provide equally effective alternate access.

For questions and more information about this document, please contact the following:

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This proposal from NWEA provides pricing information for student licenses and support services. Also included within proposal are additional services that NWEA will provide to Seattle Public Schools.

Seattle Public Schools & NWEA® Partnership Proposal

NWEA is pleased to present the following partnership proposal to Seattle Public Schools. We are grateful for the opportunity to further serve your students and staff, and we look forward to working in collaboration with SPS leadership to finalize a scope of work that considers the unique and complex needs of Washington’s largest district.

Below, you will find our proposed pricing information for student licenses and support services. Following the pricing table, we have outlined additional services we are committed to providing to SPS to fully leverage the resources and expertise available at NWEA.

Product Solutions	Grades	Students	NWEA Price	SPS Price	Total
MAP Growth Reading, Language Usage, & Math - RENEWAL	K-8	17,792	\$13.50	\$11.50	\$204,608
MAP Growth Reading, Language Usage, & Math – EXPANSION	3-8	21,208	\$13.50	\$8.00	\$169,664

Professional Learning	Quantity	NWEA Price	SPS Price	Total
Custom Content: Essential Reports for Teachers & Data to Inform Instruction	4	\$3,500	\$3,000	\$12,000
Differentiated Coaching	8	\$3,500	\$3,000	\$24,000
Student Growth and Goals	4	\$3,500	\$3,000	\$12,000

Report Offerings	Quantity	NWEA Price	SPS Price	Total
Growth Report	1	\$4,000	\$0	\$0

Product Total	\$374,272
PL Total	\$48,000
Reports Total	\$0
Total Discount	\$164,228
Grand Total	\$422,272

Additional Services Included in SPS's Partnership with NWEA

Devoted Account Manager: Throughout the life of our partnership, the Account Manager will work collaboratively with all stakeholders to ensure a smooth, successful implementation and that district needs are being met.

Professional Learning Consultant – Trained for Strategic Accounts: NWEA recognizes that educators thrive when they have a blend of intensive and continuous learning experiences complemented by data-driven strategies for long-term growth. Therefore, we offer a Professional Learning Consultant – trained for strategic accounts, who will help tailor a professional learning plan to meet the distinctive needs of SPS schools, staff and students.

Designated Technical Consultation: In addition to standard support services, the Technical Consultation Team provides high-level support to our largest districts including SPS. This team of experts ensures NWEA's technical requirements work seamlessly within the district's technical infrastructure. In addition, Technical Consultants provide ongoing support to district teams when technical questions or concerns arise.

Comprehensive Data File: SPS will continue to receive a Comprehensive Data File containing data for every student taking MAP assessments. This file is delivered in a CSV allowing for upload to your student information system as well as providing district research and assessment team members the ability to further analyze data at all levels of disaggregation. These files will be provided throughout the lifetime of the partnership.

Professional Learning Online: SPS will continue to have unlimited access to Professional Learning Online, NWEA's online professional development platform. Professional Learning Online consists of on-demand videos, tutorials, research and educational articles, and activities to support continuing education for SPS staff. Also included is unlimited access to NWEA's blog, the NWEA Community page, and additional NWEA resources.

Regular System Upgrades: NWEA takes pride in the stability of our platform and the continuous upgrades made to our solutions. Regular system upgrade and maintenance will be provided for the lifetime of the partnership.

Support Services: Our dedicated, experienced Support Team solves problems and answers questions to ensure partner success. Partners can talk to experienced representatives by phone, connect through email, chat or participate in our digital community.

Premium Reports: NWEA’s suite of Premium Reports including the Insights, Growth, and Instructional Reports will be furnished to provide crucial information about your student, school, and regional trends. They provide powerful, district, regional and school insights to support growth for *all* students. Each report is designed to give unique insights into key aspects of the district’s academic performance allowing leadership to identify strengths, barriers, and opportunities to help students succeed.

Premium Report	Purpose	Audience	Recommended Frequency
Insights Report	<ul style="list-style-type: none"> ○ PDF, PPT with narrative showing target insights from MAP Growth achievement & growth data ○ Clarify student academic performance ○ Answers essential questions including: Are we serving all students equally? How are schools performing relative to what’s typical and relative to each other? Where might we devote more attention and resources? 	District and regional leaders, SPS Board of Trustees, parents, community members	Annually
Growth Report	<ul style="list-style-type: none"> ○ Online, visual, and interactive tool for exploring growth and achievement data ○ Showcases areas of strength and concern compared to NWEA’s normative data ○ Provides insight into student testing conditions 	District, regional, and school leaders	2x/year
Instructional Report	<ul style="list-style-type: none"> ○ Online, visual, and interactive tool that provides robust information about how well students understand instructional topics and learning statements ○ Provides insights to help focus instruction, show where curriculum supports are needed, and to provide insight into teacher content expertise 	District, regional, and school leaders	Annually



Northwest Evaluation Association (NWEA) Smarter Balanced Assessment (SBA) Report

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This report was developed by NWEA and details a concordance study to connect the scales of the English language arts (ELA) and Smarter Balanced Assessments with those of the MAP Growth reading and math assessments. The report provides 3rd through 8th grade cut scores on MAP Growth reading and math scales that correspond to the benchmarks on the Smarter Balanced ELA and math assessments.

Linking the Smarter Balanced Assessments to NWEA MAP Growth Tests*

*As of June 2017 Measures of Academic Progress® (MAP®) is known as MAP® Growth™.

Psychometrics Service Team

Introduction

Concordance tables have been used for decades to relate scores on different tests measuring similar but distinct constructs. These tables, typically derived from statistical linking procedures, provide a direct link between scores on different tests and serve various purposes. Aside from describing how a score on one test relates to performance on another test, they can also be used to identify benchmark scores on one test corresponding to performance categories on another test, or to maintain continuity of scores on a test after a redesign or change. Concordance tables provide a useful tool for educators, parents, administrators, researchers, and policy makers to evaluate and formulate academic standing and growth.

NWEA™ is committed to providing partners with useful tools to help make inferences from the MAP™ Growth® scores. One important tool is the concordance table between MAP and state summative assessments. Recently, NWEA completed a concordance study to connect the scales of Smarter Balanced Assessment Consortium’s (Smarter Balanced) English language arts (ELA) and math with those of the MAP Growth reading and math assessments. In this report, we present the 3rd through 8th grade cut scores on MAP Growth reading and math scales that correspond to the benchmarks on the Smarter Balanced ELA and math tests. Information about classification accuracy of the estimated MAP Growth cut scores is also provided, along with a series of tables that estimate the probability of receiving a Level 3 or higher score on the Smarter Balanced assessments, based on the observed MAP Growth scores taken during the same school year. A detailed description of the data and analysis method used this study is provided in the Appendix.

Overview of Assessments

Smarter Balanced Assessments are summative assessments administered in the form of computerized adaptive tests (CATs) and developed according to the Common Core State Standards (CCSS) in ELA and math for Grades 3-8 and 11. Smarter Balanced uses a vertical scale that assumes student proficiency is increased across different grade levels and reports scaled scores with a range between 2000 and 3000. For each grade and subject, there are three cut scores that classify student performance into four levels. The Level 3 cut score demarks the minimum level of performance considered to be “Proficient” for accountability purposes (Smart Balanced Technical Report, 2015). Level 1 (Not Met) indicates students have not met the achievement standards for that grade; Level 2 (Nearly Met) indicates students have nearly met the achievement standards; Level 3 (Met) indicates students have met the achievement standards; and Level 4 (Exceeded) indicates students have exceeded the achievement standards for that grade.

MAP Growth tests are vertically scaled interim assessments that are also administered in the form of CAT. MAP tests are constructed to measure student achievements from Grades K to 12th in reading, math, language usage, and science and aligned to the CCSS. MAP Growth scores are reported with Rasch Unit (RIT) scale with a range from 100 to 350. Each subject has its own RIT scale.

Estimated MAP Growth Cut Scores Associated with 4 Smarter Balanced Performance Levels

Tables 1 to 4 report the Smarter Balanced scaled scores associated with each of the four performance levels, as well as the estimated score range on the MAP Growth tests associated with each Smarter Balanced performance level. Tables 1 and 2 apply to MAP Growth scores obtained during spring testing season for reading and math, respectively. Tables 3 and 4 apply to MAP Growth tests taken in a prior testing season (fall or winter) for reading and math, respectively. The tables also show the percentile rank (based on the *NWEA 2015 MAP Growth Norms*) associated with each estimated MAP Growth cut score. The cut scores can be used to predict students' most probable Smarter Balanced performance category, based on their observed MAP scores. For example, a 3rd grade student who obtained a MAP Growth math score of 204 in the spring testing season would be predicted to be at the very low end of Level 3 (Met) on the Smarter Balanced taken during that same testing season (see Table 2). Similarly, a 6th grade student who obtained a MAP Growth reading score of 207 in the fall testing season would be predicted to be at Level 2 (Nearly Met) on the Smarter Balanced taken in the spring of 6th grade (see Table 3).

TABLE 1. CONCORDANCE BETWEEN SMARTER BALANCED ELA AND MAP GROWTH
READING CUT SCORES (WHEN MAP GROWTH IS TAKEN IN SPRING)

SMARTER BALANCED								
Grade	Level1		Level2		Level3		Level4	
	Not Met		Nearly Met		Met		Exceeded	
3	2114-2366		2367-2431		2432-2489		2490-2623	
4	2131-2415		2416-2472		2473-2532		2533-2663	
5	2201-2441		2442-2501		2502-2581		2582-2701	
6	2210-2456		2457-2530		2531-2617		2618-2724	
7	2258-2478		2479-2551		2552-2648		2649-2745	
8	2288-2486		2487-2566		2567-2667		2668-2769	

MAP Growth								
Grade	Level 1		Level 2		Level 3		Level 4	
	Not Met		Nearly Met		Met		Exceeded	
	RIT	%tile	RIT	%tile	RIT	%tile	RIT	%tile
3	100-190	1-30	191-201	31-58	202-210	59-78	211-350	79-99
4	100-199	1-34	200-208	35-57	209-216	58-76	217-350	77-99
5	100-203	1-29	204-213	30-55	214-224	56-81	225-350	82-99
6	100-205	1-24	206-217	25-55	218-230	56-84	231-350	85-99
7	100-209	1-28	210-221	29-59	222-234	60-86	235-350	87-99
8	100-211	1-29	212-224	30-61	225-238	62-88	239-350	89-99

Note. %ile=percentile

TABLE 2. CONCORDANCE BETWEEN SMARTER BALANCED MATH AND MAP GROWTH MATH CUT SCORES (WHEN MAP GROWTH IS TAKEN IN SPRING)

SMARTER BALANCED									
Grade	Level1		Level2		Level3		Level4		
	Not Met		Nearly Met		Met		Exceeded		
3	2189-2380		2381-2435		2436-2500		2501-2621		
4	2204-2410		2411-2484		2485-2548		2549-2659		
5	2219-2454		2455-2527		2528-2578		2579-2700		
6	2235-2472		2473-2551		2552-2609		2610-2748		
7	2250-2483		2484-2566		2567-2634		2635-2778		
8	2265-2503		2504-2585		2586-2652		2653-2802		

MAP GROWTH MATH									
Grade	Level 1		Level 2		Level 3		Level 4		
	Not Met		Nearly Met		Met		Exceeded		
	RIT	%tile	RIT	%tile	RIT	%tile	RIT	%tile	
3	100-193	1-24	194-203	25-51	204-214	52-79	215-350	80-99	
4	100-201	1-21	202-216	22-58	217-228	59-84	229-350	85-99	
5	100-213	1-31	214-228	32-67	229-237	68-84	238-350	85-99	
6	100-216	1-30	217-229	31-60	230-239	61-80	240-350	81-99	
7	100-220	1-32	221-234	33-63	235-245	64-83	246-350	84-99	
8	100-227	1-43	228-241	44-71	242-251	72-85	252-350	86-99	

TABLE 3. CONCORDANCE BETWEEN SMARTER BALANCED ELA AND MAP GROWTH READING CUT SCORES (WHEN MAP GROWTH IS TAKEN IN FALL OR WINTER PRIOR TO SPRING SMARTER BALANCED TESTS)

SMARTER BALANCED									
Grade	Level1		Level2		Level3		Level4		
	Not Met		Nearly Met		Met		Exceeded		
3	2114-2366		2367-2431		2432-2489		2490-2623		
4	2131-2415		2416-2472		2473-2532		2533-2663		
5	2201-2441		2442-2501		2502-2581		2582-2701		
6	2210-2456		2457-2530		2531-2617		2618-2724		
7	2258-2478		2479-2551		2552-2648		2649-2745		
8	2288-2486		2487-2566		2567-2667		2668-2769		

MAP GROWTH FALL									
Grade	Level 1		Level 2		Level 3		Level 4		
	Not Met		Nearly Met		Met		Exceeded		
	RIT	%tile	RIT	%tile	RIT	%tile	RIT	%tile	
3	100-178	1-27	179-191	28-58	192-202	59-81	203-350	82-99	
4	100-190	1-31	191-201	32-59	202-210	60-79	211-350	80-99	
5	100-196	1-27	197-207	28-55	208-220	56-83	221-350	84-99	
6	100-199	1-22	200-213	23-57	214-228	58-88	229-350	89-99	
7	100-204	1-26	205-218	27-61	219-232	62-88	233-350	89-99	
8	100-207	1-27	208-222	28-63	223-236	64-89	237-350	90-99	

MAP GROWTH WINTER									
Grade	Level 1		Level 2		Level 3		Level 4		
	Not Met		Nearly Met		Met		Exceeded		
	RIT	%tile	RIT	%tile	RIT	%tile	RIT	%tile	
3	100-186	1-27	187-198	28-58	199-208	59-80	209-350	81-99	
4	100-196	1-32	197-206	33-58	207-214	59-77	215-350	78-99	
5	100-201	1-29	202-211	30-55	212-223	56-82	224-350	83-99	
6	100-203	1-23	204-216	24-58	217-229	58-85	230-350	86-99	
7	100-207	1-27	208-220	28-60	221-233	61-86	234-350	87-99	
8	100-210	1-29	211-223	30-62	224-237	63-88	238-350	89-99	

TABLE 4. CONCORDANCE BETWEEN SMARTER BALANCED MATH AND MAP GROWTH MATH CUT SCORES (WHEN MAP GROWTH IS TAKEN IN FALL OR WINTER PRIOR TO SPRING SMARTER BALANCED TESTS)

SMARTER BALANCED									
Grade	Level1		Level2		Level3		Level4		
	Not Met		Nearly Met		Met		Exceeded		
3	2189-2380		2381-2435		2436-2500		2501-2621		
4	2204-2410		2411-2484		2485-2548		2549-2659		
5	2219-2454		2455-2527		2528-2578		2579-2700		
6	2235-2472		2473-2551		2552-2609		2610-2748		
7	2250-2483		2484-2566		2567-2634		2635-2778		
8	2265-2503		2504-2585		2586-2652		2653-2802		

MAP GROWTH FALL									
Grade	Level 1		Level 2		Level 3		Level 4		
	Not Met		Nearly Met		Met		Exceeded		
	RIT	%tile	RIT	%tile	RIT	%tile	RIT	%tile	
3	100-179	1-20	180-190	21-51	191-202	52-82	203-350	83-99	
4	100-189	1-18	190-205	19-61	206-217	62-87	218-350	88-99	
5	100-203	1-30	204-218	31-69	219-227	70-86	228-350	87-99	
6	100-208	1-28	209-221	29-60	222-232	61-83	233-350	84-99	
7	100-214	1-31	215-228	32-64	229-239	65-84	240-350	85-99	
8	100-222	1-42	223-237	43-73	238-247	74-88	248-350	89-99	

MAP GROWTH WINTER									
Grade	Level 1		Level 2		Level 3		Level 4		
	Not Met		Nearly Met		Met		Exceeded		
	RIT	%tile	RIT	%tile	RIT	%tile	RIT	%tile	
3	100-188	1-23	189-198	24-51	199-209	52-80	210-350	81-99	
4	100-196	1-20	197-211	21-58	212-223	59-85	224-350	86-99	
5	100-209	1-31	210-224	32-68	225-233	69-85	234-350	86-99	
6	100-213	1-30	214-226	31-61	227-236	62-81	237-350	82-99	
7	100-218	1-33	219-232	34-65	233-243	66-84	244-350	85-99	
8	100-225	1-42	226-239	43-71	240-249	72-86	250-350	87-99	

Classification Accuracy

Classification accuracy, expressed in the form of a rate between 0 and 1, measures the extent to which MAP Growth scores (and the estimated MAP Growth cut scores) accurately predicted whether students in the sample achieved proficiency (i.e., Level 3 or higher) on the Smarter Balanced. Higher classification accuracy indicates stronger congruence between MAP Growth and Smarter Balanced scores. The results in Table 5 indicates that MAP Growth scores accurately predicted students’ proficiency (Level 3 or higher) status on Smarter Balanced with about 83-89% accuracy, depending on grade and subject. MAP Growth reading scores accurately predicted ELA proficiency on Smarter Balanced about 84% of the time, whereas MAP Growth math scores accurately predicted Smarter Balanced math proficiency about 88% of the time. In general, false positive and false negative predictions occurred with about equal frequency, and were relatively low.

TABLE 5. CLASSIFICATION ACCURACY WHEN PREDICTING SMARTER BALANCED LEVEL 3 FROM MAP

Grade	ELA			Math		
	Classification	False		Classification	False	
	Accuracy	Positives	Negatives	Accuracy	Positives	Negatives
3	0.84	0.09	0.07	0.85	0.08	0.07
4	0.84	0.08	0.08	0.87	0.06	0.07
5	0.84	0.08	0.08	0.88	0.06	0.06
6	0.83	0.09	0.08	0.88	0.06	0.06
7	0.83	0.08	0.09	0.89	0.06	0.05
8	0.83	0.09	0.08	0.89	0.05	0.06

Proficiency Projection

The results of proficiency projection are reported in Tables 6 to 8. These tables estimate the probability of scoring at Level 3 or higher on the Smarter Balanced in the spring, based on an observed MAP score from the spring or the prior fall or winter testing season. For example, if a 3rd grade student obtained a MAP Growth math score of 197 in the fall, the probability of obtaining a Level 3 or higher Smarter Balanced score in the spring of 3rd grade is 81%. Table 6 presents the estimated probability of meeting Level 3 benchmark when MAP Growth is taken in the spring, whereas Tables 7 and 8 present the estimated probability of meeting Level 3 benchmark when MAP Growth is taken in the fall or winter prior to the Smarter Balanced tests.

TABLE 6. PROFICIENCY PROJECTION FOR PASSING SMARTER BALANCED ELA LEVEL 3 (MET) WHEN MAP GROWTH IS TAKEN IN THE SPRING

Grade	ELA					Math				
	Start %tile	RIT Spring	Projected Proficiency			Start %tile	RIT Spring	Projected Proficiency		
			Cut Score	Level 3	Prob.			Cut Score	Level 3	Prob.
3	5	174	202	No	0.00	5	181	204	No	0.00
	10	179	202	No	0.00	10	186	204	No	0.00
	15	183	202	No	0.00	15	189	204	No	0.00
	20	186	202	No	0.00	20	192	204	No	0.00
	25	189	202	No	0.00	25	194	204	No	0.00
	30	191	202	No	0.00	30	196	204	No	0.00
	35	193	202	No	0.00	35	198	204	No	0.02
	40	195	202	No	0.01	40	200	204	No	0.08
	45	197	202	No	0.06	45	202	204	No	0.25
	50	199	202	No	0.17	50	204	204	Yes	0.50
	55	201	202	No	0.38	55	205	204	Yes	0.63
	60	203	202	Yes	0.62	60	207	204	Yes	0.85
	65	205	202	Yes	0.83	65	209	204	Yes	0.96
	70	207	202	Yes	0.94	70	211	204	Yes	0.99
	75	209	202	Yes	0.99	75	213	204	Yes	1.00
	80	212	202	Yes	1.00	80	215	204	Yes	1.00
	85	214	202	Yes	1.00	85	218	204	Yes	1.00
90	218	202	Yes	1.00	90	221	204	Yes	1.00	
95	224	202	Yes	1.00	95	226	204	Yes	1.00	
4	5	182	209	No	0.00	5	189	217	No	0.00
	10	187	209	No	0.00	10	194	217	No	0.00
	15	191	209	No	0.00	15	198	217	No	0.00
	20	194	209	No	0.00	20	201	217	No	0.00
	25	196	209	No	0.00	25	204	217	No	0.00
	30	198	209	No	0.00	30	206	217	No	0.00
	35	200	209	No	0.00	35	208	217	No	0.00
	40	202	209	No	0.01	40	210	217	No	0.01
	45	204	209	No	0.06	45	212	217	No	0.04
	50	206	209	No	0.17	50	214	217	No	0.15
	55	208	209	No	0.38	55	216	217	No	0.37
	60	210	209	Yes	0.62	60	218	217	Yes	0.63
	65	212	209	Yes	0.83	65	220	217	Yes	0.85
	70	214	209	Yes	0.94	70	222	217	Yes	0.96
	75	216	209	Yes	0.99	75	224	217	Yes	0.99
	80	219	209	Yes	1.00	80	226	217	Yes	1.00
	85	222	209	Yes	1.00	85	229	217	Yes	1.00
90	225	209	Yes	1.00	90	233	217	Yes	1.00	
95	231	209	Yes	1.00	95	238	217	Yes	1.00	

TABLE 6. (CONTINUED)

Grade	ELA					Math				
	Start %tile	RIT Spring	Projected Proficiency			Start %tile	RIT Spring	Projected Proficiency		
			Cut Score	Level 3	Prob.			Cut Score	Level 3	Prob.
5	5	188	214	No	0.00	5	195	229	No	0.00
	10	193	214	No	0.00	10	201	229	No	0.00
	15	197	214	No	0.00	15	205	229	No	0.00
	20	200	214	No	0.00	20	208	229	No	0.00
	25	202	214	No	0.00	25	211	229	No	0.00
	30	204	214	No	0.00	30	213	229	No	0.00
	35	206	214	No	0.01	35	215	229	No	0.00
	40	208	214	No	0.03	40	218	229	No	0.00
	45	210	214	No	0.11	45	220	229	No	0.00
	50	212	214	No	0.27	50	222	229	No	0.01
	55	214	214	Yes	0.50	55	224	229	No	0.04
	60	216	214	Yes	0.73	60	226	229	No	0.15
	65	218	214	Yes	0.89	65	228	229	No	0.37
	70	220	214	Yes	0.97	70	230	229	Yes	0.63
	75	222	214	Yes	0.99	75	233	229	Yes	0.92
	80	224	214	Yes	1.00	80	235	229	Yes	0.98
85	227	214	Yes	1.00	85	238	229	Yes	1.00	
90	231	214	Yes	1.00	90	242	229	Yes	1.00	
95	236	214	Yes	1.00	95	248	229	Yes	1.00	
6	5	192	218	No	0.00	5	198	230	No	0.00
	10	197	218	No	0.00	10	204	230	No	0.00
	15	201	218	No	0.00	15	208	230	No	0.00
	20	204	218	No	0.00	20	211	230	No	0.00
	25	206	218	No	0.00	25	214	230	No	0.00
	30	208	218	No	0.00	30	217	230	No	0.00
	35	210	218	No	0.01	35	219	230	No	0.00
	40	212	218	No	0.03	40	221	230	No	0.00
	45	214	218	No	0.11	45	224	230	No	0.02
	50	216	218	No	0.27	50	226	230	No	0.08
	55	218	218	Yes	0.50	55	228	230	No	0.25
	60	220	218	Yes	0.73	60	230	230	Yes	0.50
	65	222	218	Yes	0.89	65	232	230	Yes	0.75
	70	224	218	Yes	0.97	70	234	230	Yes	0.92
	75	226	218	Yes	0.99	75	237	230	Yes	0.99
	80	228	218	Yes	1.00	80	240	230	Yes	1.00
85	231	218	Yes	1.00	85	243	230	Yes	1.00	
90	235	218	Yes	1.00	90	247	230	Yes	1.00	
95	240	218	Yes	1.00	95	253	230	Yes	1.00	

TABLE 6. (CONTINUED)

Grade	ELA					Math				
	Start %tile	RIT Spring	Projected Proficiency			Start %tile	RIT Spring	Projected Proficiency		
			Cut Score	Level 3	Prob.			Cut Score	Level 3	Prob.
7	5	193	222	No	0.00	5	200	235	No	0.00
	10	199	222	No	0.00	10	206	235	No	0.00
	15	203	222	No	0.00	15	210	235	No	0.00
	20	206	222	No	0.00	20	214	235	No	0.00
	25	208	222	No	0.00	25	217	235	No	0.00
	30	211	222	No	0.00	30	220	235	No	0.00
	35	213	222	No	0.00	35	222	235	No	0.00
	40	215	222	No	0.01	40	224	235	No	0.00
	45	217	222	No	0.06	45	227	235	No	0.00
	50	218	222	No	0.11	50	229	235	No	0.02
	55	220	222	No	0.27	55	231	235	No	0.08
	60	222	222	Yes	0.50	60	233	235	No	0.25
	65	224	222	Yes	0.73	65	236	235	Yes	0.63
	70	226	222	Yes	0.89	70	238	235	Yes	0.85
	75	229	222	Yes	0.99	75	241	235	Yes	0.98
	8	5	194	225	No	0.00	5	200	242	No
10		200	225	No	0.00	10	206	242	No	0.00
15		204	225	No	0.00	15	211	242	No	0.00
20		207	225	No	0.00	20	215	242	No	0.00
25		210	225	No	0.00	25	218	242	No	0.00
30		212	225	No	0.00	30	221	242	No	0.00
35		214	225	No	0.00	35	224	242	No	0.00
40		216	225	No	0.00	40	226	242	No	0.00
45		218	225	No	0.01	45	229	242	No	0.00
50		220	225	No	0.06	50	231	242	No	0.00
55		222	225	No	0.17	55	234	242	No	0.00
60		224	225	No	0.38	60	236	242	No	0.02
65		226	225	Yes	0.62	65	239	242	No	0.15
70		229	225	Yes	0.89	70	241	242	No	0.37
75		231	225	Yes	0.97	75	244	242	Yes	0.75
80		234	225	Yes	1.00	80	247	242	Yes	0.96
85	237	225	Yes	1.00	85	251	242	Yes	1.00	
90	240	225	Yes	1.00	90	255	242	Yes	1.00	
95	246	225	Yes	1.00	95	263	242	Yes	1.00	

TABLE 7. PROFICIENCY PROJECTION FOR PASSING SMARTER BALANCED ELA LEVEL 3 (MET) WHEN MAP GROWTH IS TAKEN IN THE FALL OR WINTER PRIOR TO SPRING SMARTER BALANCED TESTS

Grade	Start %ile	RIT Fall	Projected Proficiency			Start %ile	RIT Winter	Projected Proficiency		
			Cut Score	Level 3	Prob.			Cut Score	Level 3	Prob.
3	5	162	202	No	0.00	5	171	202	No	0.00
	10	168	202	No	0.00	10	176	202	No	0.00
	15	172	202	No	0.01	15	180	202	No	0.00
	20	175	202	No	0.02	20	183	202	No	0.00
	25	178	202	No	0.04	25	185	202	No	0.01
	30	180	202	No	0.07	30	188	202	No	0.02
	35	182	202	No	0.12	35	190	202	No	0.05
	40	184	202	No	0.17	40	192	202	No	0.09
	45	186	202	No	0.24	45	194	202	No	0.16
	50	188	202	No	0.32	50	196	202	No	0.26
	55	190	202	No	0.41	55	198	202	No	0.38
	60	192	202	No	0.48	60	199	202	No	0.48
	65	194	202	Yes	0.60	65	201	202	Yes	0.65
	70	197	202	Yes	0.69	70	204	202	Yes	0.78
	75	199	202	Yes	0.78	75	206	202	Yes	0.88
	80	202	202	Yes	0.86	80	208	202	Yes	0.95
	85	205	202	Yes	0.93	85	211	202	Yes	0.98
90	209	202	Yes	0.97	90	215	202	Yes	1.00	
95	215	202	Yes	1.00	95	221	202	Yes	1.00	
4	5	173	209	No	0.00	5	179	209	No	0.00
	10	178	209	No	0.00	10	184	209	No	0.00
	15	182	209	No	0.01	15	188	209	No	0.00
	20	185	209	No	0.02	20	191	209	No	0.00
	25	188	209	No	0.04	25	194	209	No	0.01
	30	190	209	No	0.07	30	196	209	No	0.02
	35	192	209	No	0.11	35	198	209	No	0.05
	40	194	209	No	0.17	40	200	209	No	0.10
	45	196	209	No	0.24	45	202	209	No	0.17
	50	198	209	No	0.32	50	204	209	No	0.27
	55	200	209	No	0.42	55	205	209	No	0.40
	60	202	209	Yes	0.52	60	207	209	Yes	0.54
	65	204	209	Yes	0.62	65	209	209	Yes	0.68
	70	206	209	Yes	0.72	70	211	209	Yes	0.80
	75	209	209	Yes	0.81	75	214	209	Yes	0.89
80	211	209	Yes	0.89	80	216	209	Yes	0.96	
85	214	209	Yes	0.95	85	219	209	Yes	0.99	
90	218	209	Yes	0.98	90	223	209	Yes	1.00	

TABLE 7. (CONTINUED)

Grade	Start %ile	RIT Fall	Projected Proficiency			Start %ile	RIT Winter	Projected Proficiency		
			Cut-Score	Level 3	Prob.			Cut-Score	Level 3	Prob.
5	5	181	214	No	0.00	5	186	214	No	0.00
	10	186	214	No	0.00	10	191	214	No	0.00
	15	190	214	No	0.01	15	195	214	No	0.00
	20	193	214	No	0.03	20	197	214	No	0.00
	25	195	214	No	0.05	25	200	214	No	0.01
	30	198	214	No	0.09	30	202	214	No	0.03
	35	200	214	No	0.15	35	204	214	No	0.07
	40	202	214	No	0.21	40	206	214	No	0.13
	45	204	214	No	0.29	45	208	214	No	0.22
	50	206	214	No	0.37	50	210	214	No	0.33
	55	208	214	No	0.47	55	212	214	No	0.46
	60	210	214	Yes	0.56	60	214	214	Yes	0.60
	65	212	214	Yes	0.66	65	215	214	Yes	0.73
	70	214	214	Yes	0.75	70	218	214	Yes	0.84
	75	216	214	Yes	0.83	75	220	214	Yes	0.92
	80	218	214	Yes	0.90	80	222	214	Yes	0.97
	85	221	214	Yes	0.95	85	225	214	Yes	0.99
90	225	214	Yes	0.98	90	229	214	Yes	1.00	
95	231	214	Yes	1.00	95	234	214	Yes	1.00	
6	5	187	218	No	0.00	5	190	218	No	0.00
	10	192	218	No	0.00	10	196	218	No	0.00
	15	196	218	No	0.01	15	199	218	No	0.00
	20	198	218	No	0.03	20	202	218	No	0.00
	25	201	218	No	0.06	25	204	218	No	0.01
	30	203	218	No	0.10	30	207	218	No	0.03
	35	205	218	No	0.15	35	209	218	No	0.07
	40	207	218	No	0.21	40	211	218	No	0.13
	45	209	218	No	0.29	45	212	218	No	0.22
	50	211	218	No	0.37	50	214	218	No	0.33
	55	213	218	No	0.46	55	216	218	No	0.46
	60	215	218	Yes	0.56	60	218	218	Yes	0.59
	65	217	218	Yes	0.65	65	220	218	Yes	0.72
	70	219	218	Yes	0.74	70	222	218	Yes	0.83
	75	221	218	Yes	0.83	75	224	218	Yes	0.91
	80	224	218	Yes	0.89	80	226	218	Yes	0.96
	85	226	218	Yes	0.95	85	229	218	Yes	0.99
90	230	218	Yes	0.98	90	233	218	Yes	1.00	
95	235	218	Yes	1.00	95	238	218	Yes	1.00	

TABLE 7. (CONTINUED)

Grade	Start %ile	RIT Fall	Projected Proficiency			Start %ile	RIT Winter	Projected Proficiency		
			Cut-Score	Level 3	Prob.			Cut-Score	Level 3	Prob.
7	5	189	222	No	0.00	5	192	222	No	0.00
	10	195	222	No	0.00	10	198	222	No	0.00
	15	199	222	No	0.01	15	202	222	No	0.00
	20	202	222	No	0.01	20	204	222	No	0.00
	25	204	222	No	0.03	25	207	222	No	0.00
	30	206	222	No	0.06	30	209	222	No	0.01
	35	209	222	No	0.09	35	211	222	No	0.04
	40	211	222	No	0.15	40	213	222	No	0.07
	45	213	222	No	0.21	45	215	222	No	0.14
	50	214	222	No	0.29	50	217	222	No	0.23
	55	216	222	No	0.38	55	219	222	No	0.34
	60	218	222	No	0.48	60	221	222	Yes	0.51
	65	220	222	Yes	0.58	65	223	222	Yes	0.62
	70	222	222	Yes	0.68	70	225	222	Yes	0.76
	75	225	222	Yes	0.78	75	227	222	Yes	0.87
	80	227	222	Yes	0.86	80	230	222	Yes	0.94
	85	230	222	Yes	0.93	85	232	222	Yes	0.98
90	234	222	Yes	0.97	90	236	222	Yes	1.00	
95	240	222	Yes	1.00	95	242	222	Yes	1.00	
8	5	192	225	No	0.00	5	194	225	No	0.00
	10	197	225	No	0.00	10	199	225	No	0.00
	15	201	225	No	0.01	15	203	225	No	0.00
	20	204	225	No	0.02	20	206	225	No	0.00
	25	207	225	No	0.04	25	209	225	No	0.00
	30	209	225	No	0.06	30	211	225	No	0.01
	35	211	225	No	0.10	35	213	225	No	0.03
	40	213	225	No	0.14	40	215	225	No	0.06
	45	215	225	No	0.20	45	217	225	No	0.11
	50	217	225	No	0.27	50	219	225	No	0.18
	55	219	225	No	0.34	55	221	225	No	0.29
	60	221	225	No	0.43	60	223	225	No	0.41
	65	223	225	Yes	0.52	65	225	225	Yes	0.56
	70	225	225	Yes	0.61	70	227	225	Yes	0.70
	75	228	225	Yes	0.70	75	229	225	Yes	0.82
	80	230	225	Yes	0.80	80	232	225	Yes	0.92
	85	234	225	Yes	0.88	85	235	225	Yes	0.97
90	237	225	Yes	0.94	90	239	225	Yes	0.99	
95	243	225	Yes	0.99	95	245	225	Yes	1.00	

TABLE 8. PROFICIENCY PROJECTION FOR PASSING SMARTER BALANCED MATH LEVEL 3 (MET) WHEN MAP GROWTH IS TAKEN IN THE FALL OR WINTER PRIOR TO SPRING SMARTER BALANCED TESTS

Grade	Start %ile	RIT Fall	Projected Proficiency			Start %ile	RIT Winter	Projected Proficiency		
			Cut-Score	Level 3	Prob.			Cut-Score	Level 3	Prob.
3	5	169	204	No	0.00	5	176	204	No	0.00
	10	174	204	No	0.01	10	181	204	No	0.00
	15	177	204	No	0.02	15	185	204	No	0.00
	20	179	204	No	0.04	20	187	204	No	0.01
	25	182	204	No	0.09	25	189	204	No	0.02
	30	184	204	No	0.15	30	191	204	No	0.05
	35	185	204	No	0.19	35	193	204	No	0.11
	40	187	204	No	0.28	40	195	204	No	0.21
	45	189	204	No	0.38	45	197	204	No	0.35
	50	190	204	No	0.44	50	198	204	No	0.43
	55	192	204	Yes	0.55	55	200	204	Yes	0.60
	60	194	204	Yes	0.67	60	202	204	Yes	0.75
	65	195	204	Yes	0.72	65	203	204	Yes	0.81
	70	197	204	Yes	0.81	70	205	204	Yes	0.90
	75	199	204	Yes	0.88	75	207	204	Yes	0.95
	80	201	204	Yes	0.93	80	209	204	Yes	0.98
	85	204	204	Yes	0.97	85	212	204	Yes	1.00
90	207	204	Yes	0.99	90	215	204	Yes	1.00	
95	212	204	Yes	1.00	95	220	204	Yes	1.00	
4	5	179	217	No	0.00	5	185	217	No	0.00
	10	184	217	No	0.00	10	190	217	No	0.00
	15	188	217	No	0.00	15	194	217	No	0.00
	20	190	217	No	0.01	20	197	217	No	0.00
	25	193	217	No	0.03	25	199	217	No	0.00
	30	195	217	No	0.05	30	201	217	No	0.01
	35	197	217	No	0.10	35	203	217	No	0.03
	40	198	217	No	0.12	40	205	217	No	0.06
	45	200	217	No	0.20	45	207	217	No	0.13
	50	202	217	No	0.30	50	209	217	No	0.25
	55	204	217	No	0.41	55	211	217	No	0.40
	60	205	217	No	0.47	60	212	217	Yes	0.48
	65	207	217	Yes	0.59	65	214	217	Yes	0.64
	70	209	217	Yes	0.70	70	216	217	Yes	0.79
	75	211	217	Yes	0.80	75	218	217	Yes	0.89
	80	214	217	Yes	0.90	80	221	217	Yes	0.97
	85	216	217	Yes	0.95	85	224	217	Yes	0.99
90	220	217	Yes	0.99	90	227	217	Yes	1.00	
95	225	217	Yes	1.00	95	232	217	Yes	1.00	

TABLE 8. (CONTINUED)

Grade	Start %ile	RIT Fall	Projected Proficiency			Start %ile	RIT Winter	Projected Proficiency		
			Cut-Score	Level 3	Prob.			Cut-Score	Level 3	Prob.
5	5	187	229	No	0.00	5	192	229	No	0.00
	10	193	229	No	0.00	10	198	229	No	0.00
	15	196	229	No	0.00	15	202	229	No	0.00
	20	199	229	No	0.00	20	204	229	No	0.00
	25	202	229	No	0.01	25	207	229	No	0.00
	30	204	229	No	0.01	30	209	229	No	0.00
	35	206	229	No	0.03	35	211	229	No	0.00
	40	208	229	No	0.05	40	213	229	No	0.01
	45	210	229	No	0.09	45	215	229	No	0.02
	50	211	229	No	0.12	50	217	229	No	0.05
	55	213	229	No	0.19	55	219	229	No	0.11
	60	215	229	No	0.27	60	221	229	No	0.21
	65	217	229	No	0.38	65	223	229	No	0.35
	70	219	229	No	0.49	70	225	229	Yes	0.52
	75	221	229	Yes	0.61	75	228	229	Yes	0.75
	80	224	229	Yes	0.77	80	230	229	Yes	0.86
	85	227	229	Yes	0.88	85	233	229	Yes	0.96
90	230	229	Yes	0.95	90	237	229	Yes	0.99	
95	236	229	Yes	0.99	95	243	229	Yes	1.00	
6	5	192	230	No	0.00	5	196	230	No	0.00
	10	198	230	No	0.00	10	202	230	No	0.00
	15	202	230	No	0.00	15	206	230	No	0.00
	20	205	230	No	0.01	20	209	230	No	0.00
	25	207	230	No	0.01	25	211	230	No	0.00
	30	209	230	No	0.03	30	214	230	No	0.00
	35	212	230	No	0.07	35	216	230	No	0.01
	40	214	230	No	0.11	40	218	230	No	0.03
	45	216	230	No	0.18	45	220	230	No	0.08
	50	218	230	No	0.26	50	222	230	No	0.16
	55	220	230	No	0.37	55	224	230	No	0.28
	60	222	230	No	0.48	60	226	230	No	0.44
	65	224	230	Yes	0.59	65	228	230	Yes	0.60
	70	226	230	Yes	0.70	70	230	230	Yes	0.75
	75	228	230	Yes	0.79	75	233	230	Yes	0.90
	80	231	230	Yes	0.90	80	236	230	Yes	0.97
	85	234	230	Yes	0.96	85	239	230	Yes	0.99
90	238	230	Yes	0.99	90	243	230	Yes	1.00	
95	243	230	Yes	1.00	95	249	230	Yes	1.00	

TABLE 8. (CONTINUED)

Grade	Start %ile	RIT Fall	Projected Proficiency			Start %ile	RIT Winter	Projected Proficiency		
			Cut-Score	Level 3	Prob.			Cut-Score	Level 3	Prob.
7	5	196	235	No	0.00	5	198	235	No	0.00
	10	201	235	No	0.00	10	204	235	No	0.00
	15	206	235	No	0.00	15	209	235	No	0.00
	20	209	235	No	0.00	20	212	235	No	0.00
	25	211	235	No	0.00	25	215	235	No	0.00
	30	214	235	No	0.01	30	217	235	No	0.00
	35	216	235	No	0.02	35	220	235	No	0.00
	40	218	235	No	0.05	40	222	235	No	0.01
	45	221	235	No	0.11	45	224	235	No	0.04
	50	223	235	No	0.18	50	226	235	No	0.08
	55	225	235	No	0.27	55	228	235	No	0.17
	60	227	235	No	0.37	60	230	235	No	0.30
	65	229	235	No	0.49	65	233	235	Yes	0.54
	70	231	235	Yes	0.61	70	235	235	Yes	0.70
	75	234	235	Yes	0.77	75	238	235	Yes	0.88
	80	237	235	Yes	0.88	80	240	235	Yes	0.94
	85	240	235	Yes	0.95	85	244	235	Yes	0.99
90	244	235	Yes	0.99	90	248	235	Yes	1.00	
95	250	235	Yes	1.00	95	255	235	Yes	1.00	
8	5	197	242	No	0.00	5	199	242	No	0.00
	10	203	242	No	0.00	10	206	242	No	0.00
	15	208	242	No	0.00	15	210	242	No	0.00
	20	211	242	No	0.00	20	214	242	No	0.00
	25	214	242	No	0.00	25	217	242	No	0.00
	30	217	242	No	0.00	30	220	242	No	0.00
	35	219	242	No	0.01	35	222	242	No	0.00
	40	222	242	No	0.02	40	225	242	No	0.00
	45	224	242	No	0.04	45	227	242	No	0.00
	50	226	242	No	0.07	50	229	242	No	0.01
	55	229	242	No	0.14	55	231	242	No	0.03
	60	231	242	No	0.20	60	234	242	No	0.11
	65	233	242	No	0.28	65	236	242	No	0.20
	70	236	242	No	0.42	70	239	242	No	0.41
	75	238	242	Yes	0.52	75	242	242	Yes	0.64
	80	241	242	Yes	0.67	80	245	242	Yes	0.83
	85	245	242	Yes	0.83	85	248	242	Yes	0.94
90	249	242	Yes	0.93	90	253	242	Yes	0.99	
95	256	242	Yes	0.99	95	260	242	Yes	1.00	

Summary and Discussion

This study produced a set of cut scores on MAP Growth reading and math tests for Grades 3 to 8 that correspond to each Smarter Balanced performance level. By using matched score data from a sample of students from three Smarter Balanced states, the study demonstrates that MAP Growth scores can accurately predict whether a student could be proficient or above on the basis of his/her MAP Growth scores. This study also used the 2015 NWEA norms study results to project a student's probability to meet proficiency based on that student's prior MAP Growth scores in fall and winter. These results can help educators to predict student performance in Smarter Balanced tests as early as possible and to identify those students who are at risk of failing to meet required standards so that they can receive necessary resources and assistance to meet their goals.

While concordance tables can be helpful and informative, they have general limitations. First, the concordance tables provide information about score comparability on different tests, but the scores cannot be assumed to be interchangeable. In the case for Smarter Balanced and MAP Growth tests, as they are not parallel in content, scores from these two tests should not be directly compared. Second, the sample data used in this study were collected from three states, which may limit the generalizability of the results to test takers who differ significantly from this sample. NWEA will continue to gather information about Smarter Balanced performance from other schools in other states to enhance the quality and generalizability of the study.

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Smarter Balanced Technical Report (2015, November 24). Retrieved from http://www.smarterbalanced.org/wordpress/wp-content/uploads/2011/12/Chapter-10-Achievement-Level-Setting-121014_mm.pdf

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Appendix

Data and Analysis

Data

Data used in this study were collected from 87 schools in California, 44 schools in Washington, and 7 schools in Maine. The sample contained matched Smarter Balanced and MAP Growth math scores from 39,582 students in Grades 3 to 8 and matched Smarter Balanced ELA and MAP Growth reading scores from 39,530 students in Grades 3 to 8. The students completed both Smarter Balanced and MAP Growth in the spring of 2015.

To understand the statistical characteristics of the test scores, descriptive statistics are provided in Tables A1 and A2 below. Scatterplots between MAP Growth and Smarter Balanced scores are provided in Figures A1-A3. As Table A1 indicates, the overall correlation coefficients between MAP Growth and Smarter Balanced test scores are 0.85 and 0.88 for reading/ELA and math respectively. For each individual grade, as Table A2 indicates, the correlation coefficients between MAP Growth reading and Smarter Balanced ELA scores range from 0.80 to 0.83, and the correlation coefficients between MAP and Smarter Balanced math scores range from 0.85 to 0.89. All these correlations indicate a strong relationship between MAP Growth and Smarter Balanced test scores.

TABLE A1. DESCRIPTIVE STATISTICS OF THE OVERALL SAMPLE DATA

Subject	N	<i>r</i>	SMARTER BALANCED				MAP GROWTH			
			Mean	SD	Min	Max	Mean	SD	Min	Max
ELA	39,530	0.85	2484	100.88	2114	2769	209	17.71	139	262
Math	39,582	0.88	2480	96.98	2189	2802	217	19.45	139	305

TABLE A2. DESCRIPTIVE STATISTICS OF THE SAMPLE DATA BY GRADE

Subject	Grade	N	<i>r</i>	SMARTER BALANCED				MAP GROWTH			
				Mean	SD	Min	Max	Mean	SD	Min	Max
ELA	3	7,000	0.81	2403.04	83.88	2114	2623	195.47	16.16	141	237
	4	6,581	0.82	2448.16	89.10	2167	2663	203.55	15.70	144	252
	5	7,050	0.83	2486.67	90.44	2201	2701	209.83	15.56	149	250
	6	6,672	0.81	2503.29	87.20	2210	2724	212.57	15.59	139	256
	7	6,308	0.80	2531.21	90.92	2258	2745	217.22	15.23	140	262
	8	5,919	0.80	2546.67	88.30	2266	2769	220.46	15.38	146	259
Math	3	6,993	0.86	2416.34	76.36	2189	2621	199.82	14.00	142	254
	4	6,665	0.88	2457.17	77.05	2204	2659	210.48	16.00	140	285
	5	7,116	0.88	2483.06	84.24	2219	2700	219.24	17.48	144	285
	6	7,042	0.89	2502.05	97.45	2235	2748	221.61	16.67	149	276
	7	6,141	0.87	2508.92	100.24	2250	2778	224.90	17.61	149	305
	8	5,625	0.85	2520.07	106.21	2265	2802	229.94	18.88	139	305

FIGURE A1. SCATTERPLOTS BETWEEN MAP GROWTH AND SMARTER BALANCED SCORES FOR OVERALL SAMPLE

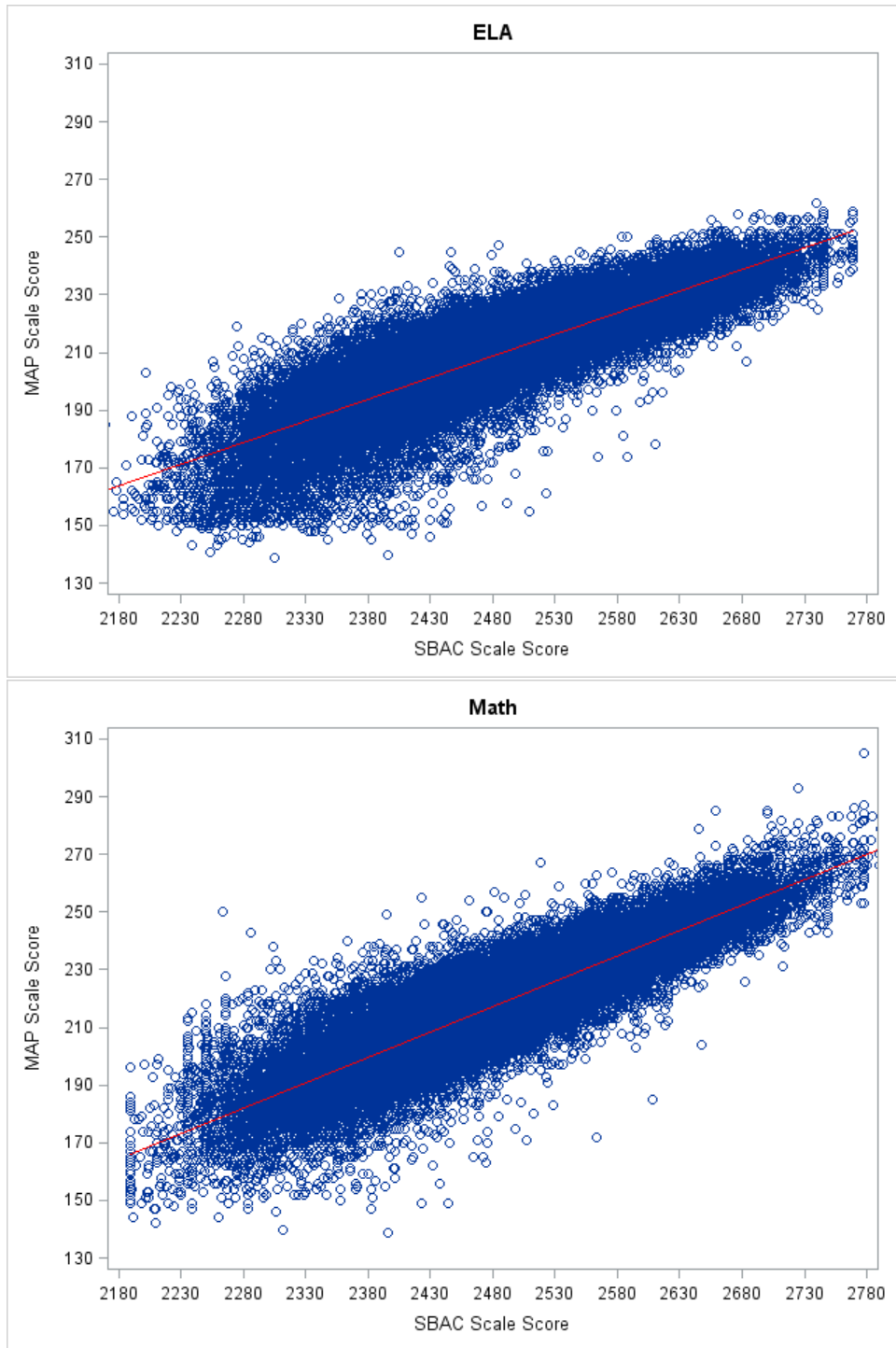


FIGURE A2. SCATTERPLOTS BETWEEN MAP GROWTH READING AND SMART
BALANCED ELA SCORES BY GRADE

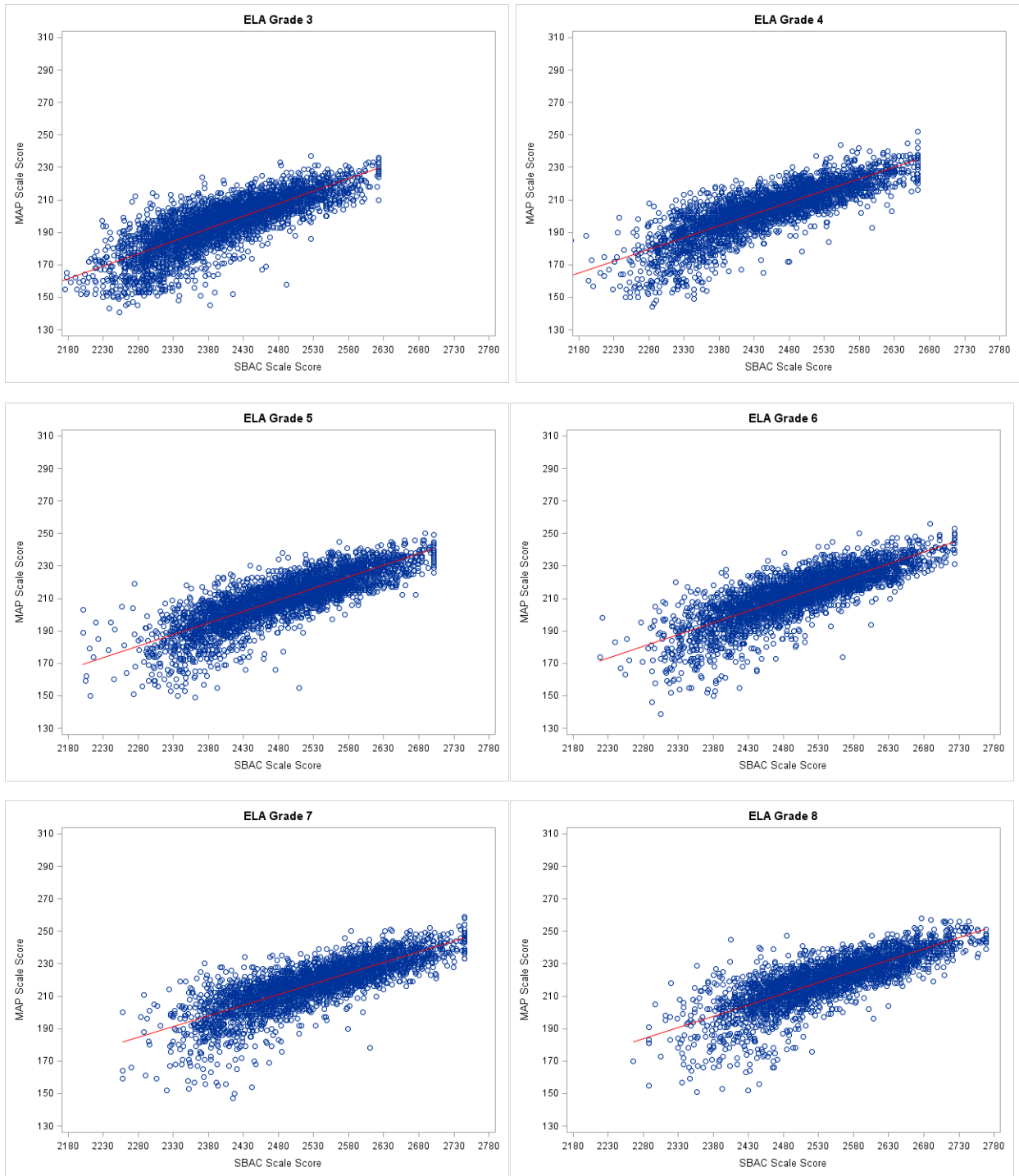
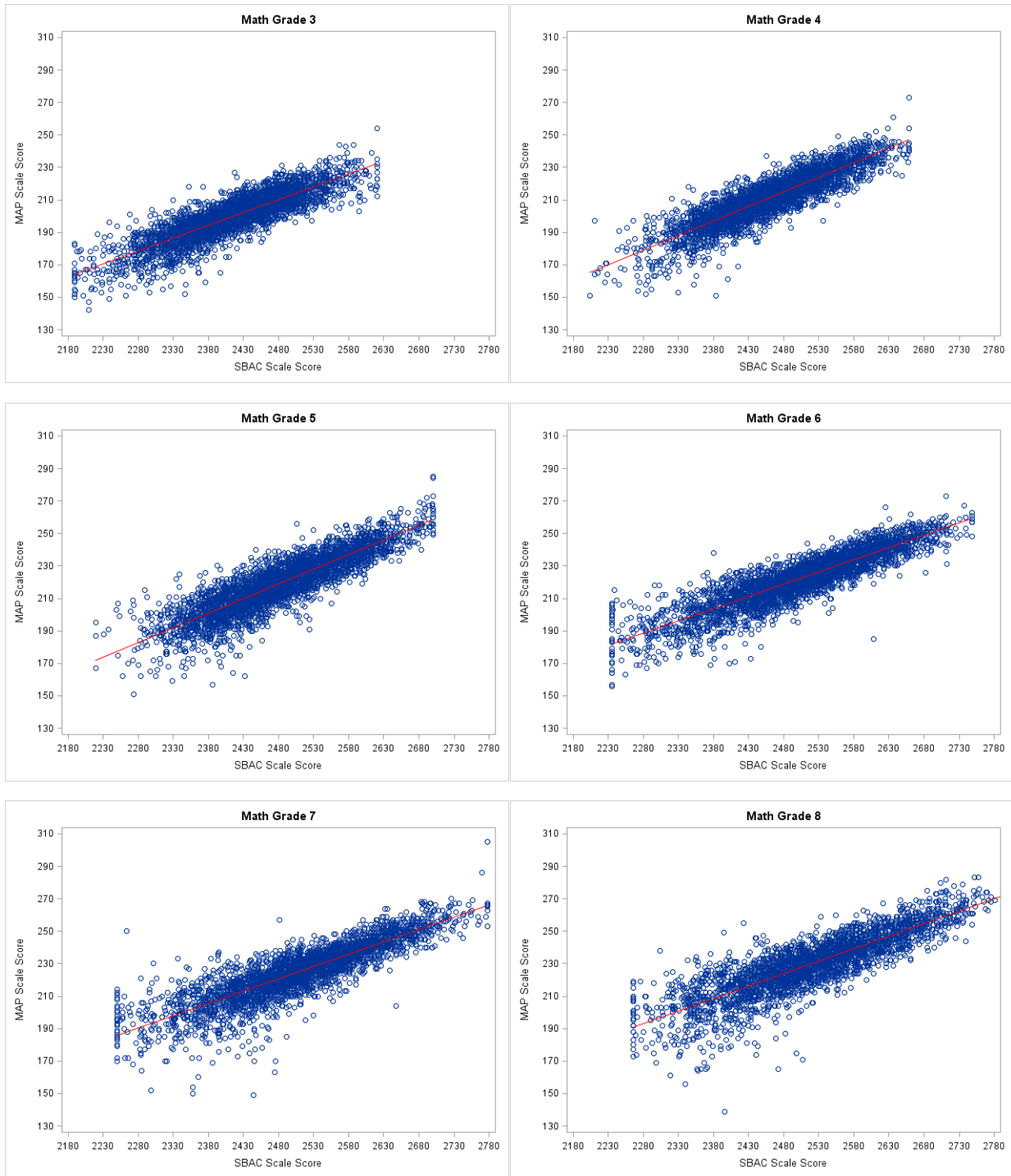


FIGURE A3. SCATTERPLOTS BETWEEN MAP GROWTH AND SMARTER BALANCED MATH SCORES BY GRADE



Equipercentile Linking

The equipercentile procedure (Kolen & Brennan, 2004) was used to establish the concordance relationship between Smarter Balanced and MAP Growth scores for each grade and subject. This procedure uses the percentile ranks (i.e., the proportion of scores at or below each score) to define the relationship between the two scales.

To establish the concorded scores between Smarter Balanced (denoted as x) and MAP Growth (denoted as y) scales, each score on Smarter Balanced was transformed through a cumulative-distribution-based linking function to the score on MAP Growth that has the same percentile rank as the following in Equation (A1):

$$e_y(x) = G^{-1}[P(x)] \quad (\text{A1})$$

where $e_y(x)$ is the equipercentile equivalent of scores on Smarter Balanced on the scale of MAP Growth, $P(x)$ is the percentile rank function of Smarter Balanced scores which is derived from the cumulative distribution of Smarter Balanced scores and indicates the percentile of a given Smarter Balanced score, and G^{-1} is the inverse of the percentile rank function for MAP Growth scores which indicates the MAP Growth score for a given percentile. Polynomial loglinear pre-smoothing was applied to reduce irregularities of the frequency distributions as well as equipercentile linking curve.

Classification Accuracy

Classification accuracy, expressed in the form of a rate between 0 and 1, measures the extent to which MAP Growth scores (and the estimated MAP cut scores) accurately predicted whether students in the sample achieved proficiency (i.e., Level 3 or higher) on the Smarter Balanced.

To calculate classification accuracy, sample students were designated “Observed Not Proficient” or “Observed Proficient” based on their Smarter Balanced scores. Similarly, they were also designated as “Predicated Not Proficient” or “Predicated Proficient” based on their MAP Growth scores and the estimated MAP Growth cut scores. A 2-way contingency table was then tabulated as illustrated in Table A3, classifying students on the basis of their observed and predicted status. Students classified in the *true positive* (TP) category were those predicted to be Proficient based on the MAP Growth cut scores and were also classified as Observed Proficient based on the Smarter Balanced cut scores. Students classified in the *true negative* (TN) category were those predicted to be Not Proficient based on the MAP Growth cut scores and were also classified as Observed Not Proficient based on the Smarter Balanced cut scores. Students classified in the *false positive* (FP) category were those predicted to be Proficient based on the MAP Growth cut scores but were classified as Observed Not Proficient based on the Smarter Balanced cut scores. Students classified in the *false negative* (FN) category were those predicated to be Not Proficient based on the MAP Growth cut scores but were classified as Observed Proficient based on the

Smarter Balanced cut scores. The overall classification accuracy was computed as the proportion of correct classifications among the entire sample by $(TP+TN) / (TP+TN+FP+FN)$.

TABLE A3. PERFORMANCE CLASSIFICATION BASED ON SMARTER BALANCED AND MAP CUT SCORES

		MAP GROWTH	
		Predicted Not Proficient	Predicted Proficient
SMARTER BALANCED	Observed Not Proficient	True Negative	False Positive
	Observed Proficient	False Negative	True Positive

Proficiency Projection

MAP Growth conditional growth norms provide student’s expected gain scores across testing seasons (Thum & Hauser, 2015). This information can be utilized to predict a student’s performance on the Smarter Balanced based on that student’s MAP Growth scores in prior seasons (e.g. fall and winter). The probability of a student achieving Level 3 (Met) on Smarter Balanced, based on his/her fall MAP Growth scores is given in Equation (2):

$$Pr(\text{Achieving Level 3 in spring} | a \text{ RIT score of } x) = \Phi\left(\frac{x + g - c}{SD}\right) \quad (2)$$

where, Φ is a standardized normal cumulative distribution, x is the student’s RIT score in fall or winter, g is the expected growth from fall or winter to spring corresponding to x , c is the MAP Growth cut-score for spring, and SD is the conditional standard deviation of growth from fall or winter to spring.


For the probability of a student achieving Level 3 on the Smarter Balanced tests, based on his/her spring score s , it can be calculated by Equation (3):

$$Pr(\text{Achieving Level 3 in spring} | a \text{ RIT score of } s \text{ in spring}) = \Phi\left(\frac{s - c}{SE}\right) \quad (3)$$

where SE is standard error of measurement for MAP Growth reading or math test.

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	<p>ASSESSMENT</p>	<p>Policy No. 2080</p> <p>July 5, 2017</p> <p>Page 1 of 4</p>
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I. Belief/Philosophy Statement

The Board of Directors of Seattle Public Schools, in alignment with Policy No. 0010, Instructional Philosophy, believes that assessments are a critical component of our education system used to inform instruction through identification of student strengths, assessment of learning growth, and diagnosis of barriers and areas of support.

II. Purpose of Assessment

The district utilizes the core principles of the Multi-Tiered System of Support (MTSS) process which combines a district-wide balanced assessment framework, decision-making and a multi-tiered services delivery model to improve educational and social and emotional behavioral outcomes for all students. A balanced assessment framework is a system comprised of multiple assessments (formative and summative), used to gather a variety of types of information in order to support student learning. A common, balanced assessment framework, designed in partnership with the district’s labor partners per the collective bargaining agreement, allows a team of educators to know each student’s strengths and needs.

Principles of Effective Assessment

- Allow Families to:
 - Understand their child’s progress
 - Provide support outside of school
 - Celebrate learning and student accomplishments
- Allow Students to:
 - Demonstrate their learning and understanding
 - Reflect on their learning progress and outcomes
 - Guide future action (including setting learning goals)
- Allow Teachers to:
 - Collect data that both informs student progress and documents growth
 - Guide the direction of future instruction in regards to content and differentiation
 - Collaboratively reflect on student needs
- Allow Schools/Districts to:

- Evaluate the impact of curriculum and instructional practices across school boundaries
- Identify and respond to the performance patterns over time of schools or groups of student and staff populations
- Follow all legal mandates and contractual obligations

III. Types of Assessments:

Assessments are presented in a variety of formats in order to serve different purposes, all of which may be utilized to inform instruction and programmatic decisions (e.g., curricula, professional development) in order to accelerate achievement for each and every student.

Four general types of assessments within the balanced assessment framework are used in Seattle Public Schools:

1. **Formative:** A range of formal and informal assessment procedures conducted on a short-term and frequent basis during the learning process in order to modify teaching activities to improve student learning. Formative assessments are generally classroom-based and integrated into the instructional process. (e.g., exit slips, observations of students, teacher questioning, short quizzes)
2. **Interim/Benchmark:** Administered periodically at set intervals during the school year to evaluate where students are in their learning progress toward attaining end-of-year learning standards. Interim assessments are more formal than classroom assessments. However, interim assessments play a formative role in helping educators make decisions about instruction. Interim assessments demonstrate which standards have been learned over time, and may be predictive of performance on summative assessments. Interim assessments may be standardized, normed against a comparative population, or judged against a set of criteria. (e.g., formal assessment of oral reading or computer scored assessment administered at the end of a quarter or trimester)
3. **Summative:** Used to evaluate student learning, skill acquisition, and academic achievement of learning standards at the conclusion of a **defined** instructional period such as the end of a project, unit, course, semester, program, or school year. Summative assessments may be standardized, normed against a comparative population, or judged against a set of criteria. (e.g., end-of-year state-mandated assessments)
4. **Performance:** Typically require students to complete a complex task. Performance assessments measure the acquisition of large bodies of diverse knowledge and skills over a period of time. (e.g. rubrics to assess writing assignment, science experiment, speech, presentation, performance, or long-term project)

IV. Assessment Selection

The School Board recognizes the need to select both formal and informal assessment tools that are high-quality, culturally responsive, provide valuable

data, and are free from bias. All assessments for district-wide use will be reviewed for approval by the School Board, with the exception of any test that is mandated for state or federal accountability. District-wide assessments are those that are funded centrally and used by all applicable district schools. All assessments that have contracts exceeding the threshold set forth in Policy No. 6220 will be reviewed for approval by the School Board. Assessments should be reviewed with input from stakeholders, in alignment with any applicable procedures outlined in the Collective Bargaining Agreement, with consideration for how each assessment reflects our district's commitment to a balanced assessment framework.

The SPS-SEA Joint Assessment Steering Committee will review and identify standardized or common assessments to recommend for building, regional, or district-wide use, as well as developing recommendations for reducing the impact of testing on instructional time and student access to resources. Assessments recommended by the SPS-SEA Joint Assessment Steering committee will contain a discussion of why the assessment was chosen, including why the test is valid, reliable, and unbiased, with consideration for the needs of students receiving special education and English Language Learner services. In order to implement a balanced assessment framework, the SEA-SPS Assessment Steering committee will consider the time and impact of assessments on students. In addition, an Assessment Advisory Committee will be formed annually with representatives from Teaching and Learning, SEA, PASS and the community to provide implementation recommendations to the SPS-SEA Joint Assessment Steering Committee. In service of transparency, an annual assessment report will be prepared for the full board which indicates all assessments being used district-wide within Seattle Schools, as well as an overview of the selection process being utilized for assessments not mandated by State or Federal Requirements.

V. Legal requirements:

The District will implement and comply with the administration of all student assessments required by Washington state and federal law.

VI. Parent/Guardian & Student Rights Related to Assessment:

The Board of Directors of Seattle Public Schools, in alignment with Policy No. 0010, Instructional Philosophy, believes that students have a right to a safe, secure, and supportive environment for instruction and assessment. Students have a right to participate in an assessment environment that is conducive to their best performance. Students who do not participate in district or state assessments for any reason have a right to appropriate learning activities and shall not be subjected to punitive or exclusionary treatment for non-participation.

Seattle Public Schools recognizes that families have a right to be informed of the assessments being utilized to support student learning and measure progress along standards. In addition, the School Board recognizes the right of parents/guardians to be notified of all state and district-mandated student

assessments, including objectives and educational benefits, rights of refusal and effects of non-participation, and to receive the results from these assessments in a timely manner.

The district will make available a public calendar of required state and district assessments by August 15th of each year. Parents/guardians have the right to view their students state testing records per guidelines by the Office of Superintendent of Public Instruction (OSPI) and appeal assessment scores required for graduation. Student information as related to assessment is protected under the guidelines of the Federal Educational Rights and Privacy Act (FERPA).

VII. Annual Review:

The Superintendent shall annually review the assessment processes and procedures to determine if the purposes of the program are being accomplished.

Adopted: July 2017

Revised:

Cross Reference: School Board Policies 0010, 2090, 2163; School Board Resolution 2015/16-15

Related Superintendent Procedure: Superintended Procedure 209OSP

Previous Policies: N/A

Legal References: RCW 28A.230.095 Essential academic learning requirements and assessments

RCW 28A.655.010 Washington commission on student learning; RCW 28A.655.100 Performance

goals—Reporting requirements; WAC 392-500-020 Pupil tests and records—Tests; WAC 392-

500-025 Pupil tests and records—Pupil personnel records

Management Resources: