

# Response to Follow-Up Questions

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In your proposal, you indicate that the average time to complete each section of the test is 40-60 minutes. Understanding that the intended use of the assessment will determine how students take the assessment, is there a difference in the time that students take when taking the assessment formatively as opposed to a summative assessment? How long does it take students to complete this assessment specifically for the selective admissions process? What information do you have for assessment time for districts/schools that use MAP Growth for admissions decisions?

MAP<sup>®</sup> Growth<sup>™</sup> was designed to support many different applications and methods of administration with no intentional differences between them. Whether the test is used for interim assessment to inform instruction, as a measure of growth, or for high-stakes purposes such as placement into a talented and gifted program or selection for admissions, the administration of the assessment is the same. The MAP Growth assessment is untimed – limits are not placed on how much time a student has to respond to the items.

The following tables depict the average MAP Growth testing durations by content area and grade based on aggregated test durations from student tests during the 2016–2017 and 2017–2018 school years. The tables are intended to provide educators with general ranges that indicate how long students normally take to complete a MAP Growth assessment. These tables are inclusive of all administration purposes. It has been observed that when given for high-stakes purposes, and the student is aware of this, times generally increase. To see the full tables, and tables from across terms, please refer to the *MAP Growth Test Durations* document.

**Table 1: Mathematics: Test Duration in Minutes – Fall 2017**

Grade	#Students	Mean Test Duration	Standard Deviation	Duration Percentiles		
				10 <sup>th</sup>	50 <sup>th</sup>	90 <sup>th</sup>
6	957,437	62.1	25.9	35	58	94
8	873,083	65.4	28.0	36	61	100
9	431,772	57.6	24.9	31	54	88

**Table 2: Mathematics: Test Duration in Minutes – Spring 2017, High-Performing Students (90<sup>th</sup> Percentile Achievement and Above)**

Grade	#Students	Mean Test Duration	Standard Deviation	Duration Percentiles		
				10 <sup>th</sup>	50 <sup>th</sup>	90 <sup>th</sup>
6	63,239	93.0	42.1	53	83	143
8	90,792	86.9	38.8	51	78	132
9	27,694	73.2	28.0	45	68	106

**Table 3: Reading: Test Duration in Minutes – Fall 2017**

Grade	#Students	Mean Test Duration	Standard Deviation	Duration Percentiles		
				10 <sup>th</sup>	50 <sup>th</sup>	90 <sup>th</sup>
6	949,376	64.8	28.9	33	61	101
8	879,461	63.2	28.3	32	59	98
9	439,572	57.2	25.9	28	54	89

**Table 4: Reading: Test Duration in Minutes – Spring 2017, High-Performing Students (90<sup>th</sup> Percentile Achievement and Above)**

Grade	#Students	Mean Test Duration	Standard Deviation	Duration Percentiles		
				10 <sup>th</sup>	50 <sup>th</sup>	90 <sup>th</sup>
6	71,459	78.2	34.3	44	71	119
8	85,527	72.5	32.8	41	66	110
9	27,615	60.8	22.9	37	57	88

**Table 5: Language Usage: Test Duration in Minutes – Fall 2017**

Grade	#Students	Mean Test Duration	Standard Deviation	Duration Percentiles		
				10 <sup>th</sup>	50 <sup>th</sup>	90 <sup>th</sup>
6	318,153	48.6	19.8	27	46	73
8	298,796	46.6	18.9	27	44	69
9	163,581	44.0	18.4	25	41	66

In addition to the data above, we encourage you to review the data from MAP Growth tests already administered in your district for trends in test duration to understand how long your specific student body is typically taking to complete the MAP Growth assessment.

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In your proposal, you indicate that MAP growth items are in multiple response formats, including multiple choice. Are we able to reduce items to selection and construction, without generation?

We build item pools for MAP Growth assessments with the intent to include as many relevant items as possible and do not build different item pools for different administration purposes. Item types are selected to be the most authentic assessment of the content that can be machine scored for immediate results.

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In your proposal, you indicate that the assessments include items that are above and below grade-level. Are we able to reduce items to be grade-level learning standards (e.g. CAT items after standard items).

The item selection algorithm employed in every MAP Growth assessment is grade-banded and is based on item difficulty and balanced across instructional area. Item metadata includes grade ranges for which an item is appropriate to ensure the content is appropriate to the age of the

student. This ensures, for example, that a high-performing fifth grader taking the MAP Growth Reading test will not see advanced items on Shakespeare, although the reading item may fit in difficulty, passage length, and instructional area. The item pools for MAP Growth are flexible to allow tests to be aligned to standards, so MAP Growth tests are designed to be standards-aligned rather than standards-based.

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Based on performance standards, which performance measure describes performance on current grade level standards? The RIT score is not going to give BPS that information. What measures do you have that will tell how students performed on grade level standards?

We have robust national norms that allow educators to compare performance to grade-based peers and linking studies that tie MAP Growth scores to summative expectations.

## MAP Growth Norms

Our nationally representative norms provide tools to interpret scores within a meaningful context. We deliver this context in the form of rich, comparative data provided by our frequently updated achievement and growth norms for individual students and schools.

We were the first assessment provider to provide status and growth norms, which are built on multi-year performance trajectories of students and schools. The resulting norms are attuned to how well students and schools performed on previous administrations of MAP Growth and how much instruction students have had, and thus they support more sensitive and flexible apples-to-apples comparisons for both students and schools.

Our 2015 MAP Growth Norms,<sup>1</sup> which we can provide to Boston Public Schools (BPS) upon request, support normative interpretations of a student's achievement in a specific grade or academic term as well as his or her growth over time. The status norms can provide useful information to BPS about the performance of each individual student relative to his/her peers in the entire nation. An updated norms study will be released this summer.

### Unmatched Norms

Our norms study is among the largest in existence, with data from more than ten million students used to create an accurate context for student achievement and growth over time.

Our norms study is among the largest in existence, with data from more than ten million students used to create an accurate description of student achievement and growth over time. Our norms take into account demographics and geography along with recent changes in curriculum, educational standards, and other factors that may impact learning growth such as instructional time. Rigorous post-stratification procedures were used to make the norms representative of the U.S. school-age population.

## Projected Proficiency

As described in our proposal on pages 5 and 10, NWEA researchers conduct regular linking studies to use MAP Growth scores to predict student performance on state standardized tests, including the Massachusetts Comprehensive Assessment System (MCAS). Our linking study,

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<sup>1</sup> MAP Growth Norms refers to the norming study for our MAP Growth assessment. This study contains both achievement *and* growth norms.

available at <https://www.nwea.org/content/uploads/2018/07/MA-MAP-Growth-Linking-Study-2018-06-18.pdf> aligns MAP Growth scores at different grade levels and testing seasons to help your educators predict student performance on the MCAS tests. The following information is presented in the linking study between MAP Growth and the MCAS:

- + Cut scores for different terms on the MAP Growth Reading and Mathematics scales for Grades 3–8 that correspond to the proficiency cut-scores on the MCAS ELA and Mathematics tests;
- + Cut scores for different terms 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 consistency rate of classification based on the estimated MAP Growth cut-scores. This consistency rate of classification can tell how accurately the MAP Growth scores predict a student’s proficiency status on the MCAS test;
- + The probability of meeting or exceeding grade-level proficiency on the MCAS assessments based on the observed MAP Growth scores taken during different terms in the same school year.