Results from the Fordham (Grades 5 and 8) and HumRRO (High School) Studies

KEY: Degree of Match to CCSSO Criteria

E

Excellent Match G Good Match

L

Limited/Uneven Match



Weak Match

English Language Arts/Literacy					
Criteria	MCAS			PARCC	
Grades	5&8	HS		5&8	HS
I. CONTENT: Assesses the <u>content</u> most needed for College and Career Readiness	L	L		E	E
Content Sub-Criteria					
B.3 Reading*: Tests require students to read closely and use specific evidence from texts to obtain and defend correct responses.	G	G		Е	Е
<u>B.5 Writing</u> : Tasks require students to engage in close reading and analysis of texts. Across each grade band, tests include a balance of expository, persuasive/argument, and narrative writing.	w	w		E	E
B.6 Vocabulary and language skills: Tests place sufficient emphasis on academic vocabulary and language conventions as used in real-world activities.	L	L		E	Е
B.7 Research and inquiry: Assessments require students to demonstrate the ability to find, process, synthesize and organize information from multiple sources.		w		ш	Е
B.8 Speaking and listening: Over time, and as assessment advances allow, the assessments measure speaking and listening communication skills.**		w		w	W
II. DEPTH: Assesses the <u>depth</u> that reflects the demands of College and Career Readiness		L		E	L
Depth Sub-Criteria					
<u>B.1 Text quality and types:</u> Tests include an aligned balance of high-quality literary and informational texts.	G	G		G	L
B.2 Complexity of texts: Test passages are at appropriate levels of text complexity, increasing through the grades, and multiple forms of authentic, high-quality texts are used.***	G	G		G	G
B.4 Cognitive demand: The distribution of cognitive demand for each grade level is sufficient to assess the depth and complexity of the standards.	L	L		Е	L
B.9 High-quality items and variety of item types: Items are of high technical and editorial quality and test forms include at least two items types, at least one that requires students to generate a response.	E	G		E	Е

Mathematics					
Criteria	МС	MCAS		PARCC	
Grades	5 & 8	HS		5&8	HS
I. CONTENT: Assesses the <u>content</u> most needed for College and Career Readiness	L	L		G	E
Content Sub-Criteria	_	_	_		
<u>C.1 Focus</u> : Tests focus strongly on the content most needed in each grade or course for success in later mathematics (i.e. Major Work).	L	G		G	E
C.2: Concepts, procedures, and applications : Assessments place balanced emphasis on the measurement of conceptual understanding, fluency and procedural skill, and the application of mathematics.****		L			G
II. DEPTH: Assesses the <u>depth</u> that reflects the demands of College and Career Readiness		L		G	G
Depth Sub-Criteria					
<u>C.3 Connecting practice to content</u> : Test questions meaningfully connect mathematical practices and processes with mathematical content.	Е	IE		Е	Е
C.4 Cognitive demand: The distribution of cognitive demand for each grade level is sufficient to assess the depth and complexity of the standards.	E	L		G	G
C.5 High-quality items and variety of item types: Items are of high technical and editorial quality and test forms include at least two items types, at least one that requires students to generate a response.	E	G		G	E

* The criteria that are recommended to be more heavily emphasized have been underlined.

** The methodology indicates that Criterion B.8 (speaking and listening) should be included "over time, and as assessment advances allow." Thus B.8 ratings are not included in the overall rating for Content.

*** The Criterion B.2 rating is based solely on program documentation as reviewers were not able to rate the extent to which quantitative measures are used to place each text in a grade band. Thus, reviewers did not consider the Criterion B.2 rating as heavily when deciding the overall depth rating (indicated by the gray shading).

**** Both programs require, in their program documentation, the assessment of conceptual understanding, procedural skill/ fluency, and application, although most do not clearly distinguish between procedural skill/fluency and conceptual understanding. Also, specific balance across these three types is not required. Due to variation across reviewers in how this criterion was understood and implemented, final ratings could not be determined with confidence. Therefore, for Criterion C.2, only qualitative observations are provided for grades 5 and 8.

Accessibility (ELA and Mathematics)		
Criteria	MCAS	PARCC
Grades	5, 8 & HS	5, 8 & HS
A.5 Accessibility: Providing accessibility to all students, including English learners and students with disabilities.	W	G

Overall note: Although panelists participating in the several connected analyses that yielded this report received similar training, guidance, and materials, they *individually* interpreted and applied the *CCSSO Criteria* to the program's items and documentation. Following individual reviews, the panelists convened to discuss their findings and arrive at collective professional judgments. As in any study with multiple experts who apply their best judgment to complex material covering a variety of topics, some variation is to be expected. Further, some individuals and panels adhered more closely to the letter of the scoring guidance while others exercised their professional judgment more liberally. In the end, each analysis has great merit in its own right and differences among them do not devalue the final ratings (much in the same way that differing reviews of the same book by knowledgeable, practiced reviewers would indicate that any, or all, lacks merit). Such is the nature of expert reviews and review panels.

ELA/I	LA/Literacy Content and Depth Summary Statements				
	MCAS	PARCC			
Conte	nt	1			
5 & 8	MCAS receives a Limited/Uneven Match to the CCSSO criteria for Content in ELA/literacy. The assessment requires students to read closely well-chosen texts and presents test questions of high technical quality. However, the program would be strengthened by assessing writing annually, assessing the three types of writing called for across each grade band, requiring writing to sources, and placing greater emphasis on assessing research and language skills.	PARCC receives an Excellent Match to the CCSSO criteria for Content in ELA/literacy. The program demonstrates excellence in the assessment of close reading, vocabulary, writing to sources, and language, providing a high-quality measure of ELA content as reflected in college- and career-readiness standards. The tests could be strengthened by the addition of research tasks that require students to use two or more sources and, as technologies allow, a listening and speaking component			
HS	MCAS receives a rating of Limited/Uneven Match for Content in ELA/Literacy. A large number of the items on the MCAS ELA/literacy assessment did not represent the standards or were not aligned well to them. Although the items centered on important central concepts and ideas, they did not require students to provide direct textual evidence. If certain items were improved, students would be required to more deeply analyze the text and therefore, the assessment would provide a better breadth and depth of the standards. The prompts did not represent expository or argumentative writing types particularly well. The items needed to better mirror real world activities.	PARCC receives a rating of Excellent Match for Content in ELA/Literacy. Nearly all of the items on the PARCC high school ELA/literacy assessment required close reading and analysis of the text. The items also focused on central ideas/themes and important particulars. Most items were text dependent and they were aligned to the specifics of each standard. Students were required to provide textual evidence in their responses to most items. Across the two forms, all three writing types (expository, persuasive/argumentative, and narrative) were represented. All writing prompts required writing to relevant sources. Students were required to support, infer, and draw conclusions to support their claims. The large majority of vocabulary items focused on tier 2 words (that is, words commonly used in written texts, often referred to as "general academic words") and required students to use context to determine meaning. The large majority of items that measured language skills emphasized the conventions most important for readiness and mirrored real world skills and tasks. Per the <i>Criteria</i> , vocabulary and language skills were reported as sub-scores. The majority of research items and writing prompts required analysis, synthesis, and/or organization of information, and citation of evidence.			

ELA/I	ELA/Literacy Content and Depth Summary Statements				
	MCAS	PARCC			
Depth					
5 & 8	MCAS receives a rating of Good Match for Depth in ELA/literacy. The assessments do an excellent job in presenting a range of complex reading texts. To fully meet the demands of the CCSSO Criteria, however, the test needs more items at higher levels of cognitive demand, a greater variety of items to test writing to sources and research, and more informational texts, particularly those of an expository nature.	PARCC receives a rating of Excellent Match for Depth in ELA/literacy. The PARCC assessments meet or exceed the depth and complexity required by the criteria through a variety of item types that are generally of high quality. A better balance between literary and informational texts would strengthen the assessments in addressing the Criteria.			
HS	MCAS receives a rating of Limited/Uneven Match for Depth in ELA/Literacy. The MCAS high school ELA/literacy form that was reviewed was judged to have the appropriate levels of text complexity; however, less than two-thirds of the passages were informational, as recommended by the <i>Criteria</i> . Slightly more than half of the informational passages were expository in nature (that is, writing that explains or informs about a specific topic) rather than the <i>Criteria's</i> requirement of virtually all. Additionally, only two of the three writing types were addressed (literary nonfiction, history/social/science, science/technical) while the <i>Criteria</i> requires a balance among the three writing types. Per the <i>Criteria</i> , quantitative and qualitative measures should be used to place each text at the appropriate grade band and level. MCAS program documentation indicated quantitative and qualitative measures are used to measure text complexity; however, reviewers could not provide a rating based on the items because it was not possible to obtain complexity metadata in a format for the reviewers to evaluate. The <i>Criteria</i> recommends that nearly all passages be previously published or of publishable quality; although the passages were previously published, reviewers did not find that they represented a wide range of text structures and purposes. Reviewers found the distribution of	PARCC receives a rating of Limited/Uneven Match for Depth in ELA/Literacy. The two PARCC high school ELA/literacy forms that were reviewed met the <i>Criteria</i> by including texts that used open sources and including items that were of high quality and rigorous. However, there was a limited range of text structures and purposes. Per the <i>Criteria</i> , quantitative and qualitative measures should be used to place each text at the appropriate grade band and level. PARCC program documentation indicated quantitative and qualitative measures are used to measure text complexity; however, reviewers could not provide a rating based on the items because it was not possible to obtain complexity metadata in a format for the reviewers to evaluate. Across the two forms, reviewers felt the two forms included a lot of items at high DOK levels and not enough items at the lower DOK levels, making it difficult to adequately assess the full range of student abilities. At least two item types were included and one of those item types required students to generate a response. All or nearly all items reflected technical quality, editorial accuracy, and alignment to standards. Note: The Criterion B.2 rating is based solely on program documentation as reviewers were not able to rate the extent to which quantitative measures are used to place each text in a grade band. Thus, reviewers did not consider the Criterion B.2			

MCAS	PARCC
 cognitive demand of the assessment only partially matched the distribution of cognitive demand of the standards as a whole and there was too much coverage of the lower levels of cognitive demand. Many questions did not require a high level of strategic or extended thinking. Note: The Criterion B.2 rating is based solely on program documentation as reviewers were not able to rate the extent to which quantitative measures are used to place each text in a grade band. Thus, reviewers did not consider the Criterion B.2 rating when developing with the overall depth rating 	rating when developing with the overall depth rating.

Mathe	Mathematics Content and Depth Summary Statements				
	MCAS	PARCC			
Conter	ht				
5&8	MCAS provides a Limited/Uneven Match to the CCSSO Criteria for Content in Mathematics. While the grade eight assessment focuses strongly on the major work of the grade, the grade five assessment does not, as it samples more broadly from the full range of standards for the grade.	PARCC provides a Good Match to the CCSSO Criteria for Content in Mathematics. The test could better meet the criteria by increasing the focus on the major work at grade five.			
	The tests could better meet the criteria through increased focus on the major work of the grade on the grade five test.				

Mathe	Iathematics Content and Depth Summary Statements				
	MCAS	PARCC			
HS	MCAS receives a rating of Good Match for Content in mathematics. Per the <i>Criteria</i> , at least half of the score points on the MCAS high school mathematics form aligned exclusively to prerequisites for careers and a wide range of postsecondary studies. However, reviewers noted that some standards were assessed multiple times while other standards were not assessed at all. While concepts, procedures, and applications were each addressed on the form that was reviewed, the required balance among the three categories was not met. Additionally, of the items that assessed conceptual understanding, reviewers perceived the complexity of those items to be at a very low level. Further, items that assessed application did not require the student to use context to determine meaning or to answer the item, as recommended by the <i>Criteria</i> .	PARCC receives a rating of Excellent Match for Content in mathematics. As recommended by the <i>Criteria</i> , at least half of the score points on the PARCC high school mathematics forms that were reviewed aligned to widely applicable prerequisites for careers and a wide range of postsecondary studies. The items aligned well to high school content. Additionally, all content was at grade level and it was reflective of student success at the high school level. Although the distribution of score points that assessed conceptual understanding, procedural skills, and application was not equally balanced, reviewers judged the application items that were included as rich in content and practice.			
Depth					
5 & 8	MCAS provides an Excellent Match to the CCSSO Criteria for Depth in Mathematics. The assessment uses high-quality items and a variety of item types. The range of cognitive demand reflects that of the standards of the grade. While the program does not code test items to math practices, mathematical practices are nonetheless incorporated within items. The program might consider coding items to the mathematical practices and making explicit the connections between specific practices and specific content standards	PARCC provides a Good Match to the CCSSO Criteria for Depth in Mathematics. The tests include items with a range of cognitive demand, but at grade eight, that distribution contains a higher percentage of items at the higher levels (DOK 2 and 3) and significantly fewer items at the lowest level (DOK 1). This finding is both a strength in terms of promoting strong skills and a weakness in terms of ensuring adequate assessment of the full range of cognitive demand within the standards. The tests include a variety of item types that are largely of high quality. However, a range of problems (from minor to severe) surfaced relative to editorial accuracy and, to a lesser degree, technical quality.			
		The program could better meet the Depth criteria by ensuring that all			

Math	Nathematics Content and Depth Summary Statements				
	MCAS	PARCC			
		items meet high editorial and technical standards and by ensuring that the distribution of cognitive demand on the assessments provides sufficient information across the range			
HS	MCAS receives a rating of Limited/Uneven Match for Depth in mathematics. The distribution of the cognitive demand of the MCAS high school mathematics assessment was not balanced appropriately with the distribution of the cognitive demand of the standards; reviewers found the distribution of cognitive demand of the assessment only partially matched the distribution of cognitive demand of the standards as a whole and there was too much coverage of the lower levels of cognitive demand. The items were generally free of technical and editorial issues, and they were free of bias. Per the <i>Criteria</i> , various item types were represented and one of those types required students to generate a response. Note: MCAS does not directly align its items to Mathematical Practices, so the reviewers did not have sufficient evidence to rate Criterion C.3; therefore, reviewers did not consider Criterion C.3 when developing the overall depth rating.	PARCC receives a rating of Good Match for Depth in mathematics. As recommended by the <i>Criteria</i> , all items on the PARCC mathematics forms that assessed a Mathematical Practice also aligned to at least one standard. Across the two forms reviewed, the distribution of the DOK of the items was judged to be similar to the distribution of the DOK of the standards. However, for both forms, reviewers believed somewhat more items were needed at the higher DOK levels. Both PARCC mathematics forms that were reviewed were judged to include a variety of item types and one of those types required students to generate a response. Reviewers judged the items on both forms to be aligned to the standards and technically accurate.			

Overa	Overall Summaries for ELA/Literacy and Mathematics				
	MCAS	PARCC			
ELA/L	iteracy				
5&8	The test requires students to closely read high-quality texts and a variety of high-quality item types. However, MCAS does not adequately assess several critical skills, including reading informational texts, writing to sources, language skills, and research and inquiry; further, too few items assess higher-order skills. Addressing these limitations would enhance the ability of the test to signal whether students are demonstrating the skills called for in the standards. Over time, the program would also benefit by developing the capacity to assess speaking and listening skills.	The tests include suitably complex texts, require a range of cognitive demand, and demonstrate variety in item types. The assessments require close reading; assess writing to sources, research, and inquiry; and emphasize vocabulary and language skills. The program would benefit from the use of more research tasks requiring students to use multiple sources and, over time, developing the capacity to assess speaking and listening skills.			
HS	A large number of the items on the MCAS high school ELA/literacy assessment did not represent or were not aligned well to the standards. Although the items centered on important central concepts and ideas, they did not sufficiently require students to provide direct textual evidence. If certain items were improved, students would be required to more deeply analyze the text and therefore, the assessment would provide a better breadth and depth of the standards. The prompts did not represent expository or argumentative writing types particularly well. In general, items needed to better mirror real world activities, as recommended by the <i>Criteria</i> . The form reviewed exhibited the appropriate levels of text complexity. Per the <i>Criteria</i> , assessments should have a balance of informational and literary texts; reviewers found that the form had too few informational texts. Also per the <i>Criteria</i> , nearly all of the informational texts need to be expository and the texts need to be split nearly evenly among literary nonfiction, history/social science, and science/technical texts. Reviewers found that only slightly more than half of the informational passages on the form were expository and only two of the three writing types were addressed. The <i>Criteria</i> recommends that nearly all passages be	Across the two PARCC high school ELA/literacy forms, the text was of high quality and the items were rigorous. Nearly all of the items required close reading and analysis of the text. The items also focused on central ideas/themes and important particulars. Most items were text dependent and they were aligned to the specifics of the standard. Students were required to provide textual evidence in their responses to most items. Across the two forms, all three writing types (expository, persuasive/argumentative, and narrative) were represented. All writing prompts required writing to relevant sources. Students were required to support, infer, and draw conclusions to support their claims. The large majority of vocabulary items focused on tier 2 words (that is, words commonly used in written texts, often referred to as "general academic words") and required students to use context to determine meaning. The large majority of items that measured language skills emphasized the conventions most important for readiness and mirrored real world skills and tasks. Per the <i>Criteria</i> , vocabulary and language skills were reported as sub-scores. As recommended by the <i>Criteria</i> , reviewers judged the large majority of research items and writing prompts to require analysis, synthesis, and/or organization of information; these			

Overa	verall Summaries for ELA/Literacy and Mathematics				
	MCAS	PARCC			
	previously published or of publishable quality; although the passages were previously published, reviewers did not find that they represented a wide range of text structures and purposes. Reviewers found the distribution of cognitive demand of the form only partially matched the distribution of cognitive demand of the standards as a whole and there was too much coverage of the lower levels of cognitive demand. Many questions did not require a high level of strategic or extended thinking.	items also required citation of evidence. Across the forms reviewed, a larger range of text structure and purposes were needed to meet the <i>Criteria</i> . Specifically, for the two forms reviewed, less than half of the passages were informational, while the <i>Criteria</i> recommended about two-thirds of the texts be informational. Of the passages that were informational, the large majority was expository in nature. In some cases two of the three text types (literary nonfiction, history/social science, and science/technical) were included and in some cases only one text type was included. A larger range of DOK levels was needed to adequately assess the full range of student abilities. Across the two forms, at least two item types were included and one of those item types required students to generate a response.			
Mathe	matics				
5 & 8	The MCAS mathematics test items are of high technical and editorial quality. Additionally, the content is distributed well across the breadth of the grade level standards, and test forms closely reflect the range of cognitive demand of the standards. Yet the grade five tests have an insufficient degree of focus on the major work of the grade. While mathematical practices are required to solve items, MCAS does not specify the assessed practices(s) within each item or their connections to content standards. The tests would better meet the Criteria through increased focus on major work at grade five and identification of the mathematical practices that are assessed—and their connections to content.	The assessment is reasonably well aligned to the major work of each grade. At grade five, the test includes a distribution of cognitive demand that is similar to that of the standards. At grade eight, the test has greater percentages of higher-demand items (DOK 3 and 4) than reflected by the standards, such that a student who scores well on the grade eight PARCC assessment will have demonstrated strong understanding of the standard's more complex skills. However, the grade eight test may not fully assess standards at the lowest level (DOK 1) of cognitive demand. The test would better meet the CCSSO Criteria through additional focus on the major work of the grade, the addition of more items at grade eight that assess standards at DOK 1, and increased attention to accuracy of the items—primarily editorial, but in some instances mathematical.			

	MCAS	PARCC
HS	MCASAs recommended by the <i>Criteria</i> , at least half of the score points on the MCAS high school mathematics form that was reviewed aligned exclusively to prerequisites for careers and a wide range of postsecondary studies. However, reviewers noted that some standards were assessed multiple times while other standards were not assessed at all. While concepts, procedures, and applications were each addressed on the form that was reviewed, the required balance among the three categories was not met. Additionally, of the items that assessed conceptual understanding, reviewers perceived the complexity of those items to be at a very low level. Further, items that assessed application did not require the student to use context to determine meaning or to answer the item, as recommended by the <i>Criteria</i> . The distribution of the cognitive demand of the assessment was not balanced appropriately with the distribution of cognitive demand of the standards; reviewers found the distribution of cognitive demand of the assessment only partially matched the distribution of cognitive	As recommended by the <i>Criteria</i> , at least half of the score points on the PARCC high school mathematics forms that were reviewed aligned to widely applicable prerequisites for careers and a wide range of postsecondary studies. The items aligned well to high school content. Additionally, all content was at grade level and it was reflective of student success at the high school level. Although the distribution of score points that assessed conceptual understanding, procedural skills, and application was not equally balanced, the application items that were included were rich in content and practice. As recommended by the <i>Criteria</i> , all items that assessed a Mathematical Practice also aligned to at least one standard. Across the two forms reviewed, the distribution of the DOK of the items was judged to be similar to the distribution of the DOK of the standards. However, for both forms, reviewers believed somewhat more items were needed at the higher DOK levels. Both PARCC mathematics forms that were reviewed were judged to include a variety of item
	demand of the standards as a whole and there was too much coverage of the lower levels of cognitive demand. The items were generally free of technical and editorial issues, and they were free of bias. Per the <i>Criteria</i> , various item types were represented and one of those types required students to generate a response. Note: MCAS does not directly align its items to Mathematical Practices, so the reviewers did not have sufficient evidence to rate Criterion C.3; therefore, reviewers did not consider Criterion C.3 when developing with the overall depth rating.	types and one of those types required students to generate a response. Reviewers judged the items on both forms to be aligned to the standards and technically accurate.

	MCAS	PARCC
5 & 8, and HS	For students with disabilities, the MCAS documentation indicates an attempt to provide accessibility for this paper-based test. However, some of the procedures around implementation, communication, and quality of exemplars are lacking. For example, there is little documentation detailing how accommodations should be assigned or the potential impact of using multiple accommodations concurrently. Also, additional documentation is needed to show how data and feedback would be used to improve accessibility and future test items.	The assessment succeeds at pushing the framework for traditionally identified supports for English Learners and Students with Disabilities. For Students with Disabilities, PARCC was rated highly for sensitivity to item design that reflects the individual needs of students. However, little attention is paid to disability categories, how multiple features can be administered at once, or the implications of how multiple accessibility features impact students' performance.
	The accessibility features/accommodations provided to English Learners taking this paper-based test are much narrower than the range of research-based supports available at this time. Attempts to provide accessibility to English learners, if referenced, are inconsistently applied across the testing program.	For English Learners, PARCC is research based and is inclusive of existing research to the extent possible. The PARCC documentation indicates that additional research will be conducted. PARCC proposes a multi-tiered approach to accessibility with improved guidelines, which is viewed as positive.