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Findings from the PARCC Quality of Test Administration Investigations:

Year 1 of Operational Administration

Andrea Sinclair, Richard Deatz, & Jessica Johnston-Fisher
HumRRO

Executive Summary

The overall purpose of the research studies described in this report was to investigate the quality of the administration of the Partnership for Assessment of Readiness for College and Careers (PARCC) assessment during its first operational year (2014 – 2015). Findings from these studies can be used to identify threats to the validity of PARCC test administration so that those threats can be addressed and reconciled for future test administrations.

The research studies in this report represent an extension of the Quality of Test Administration Study from the PARCC field test (Sinclair, Deatz, Johnston-Fisher, Levinson, & Thacker, 2015). The guiding framework for the current Quality of Test Administration Study and the prior Quality of Test Administration Study (field test) comes from the Theory of Action (TOA) in the PARCC validity studies memorandum (Thacker, Sinclair, Wise, & Becker, 2014). The claims from the Test Administration phase of the TOA are listed in Figure 1. These are the claims being investigated in the current study.

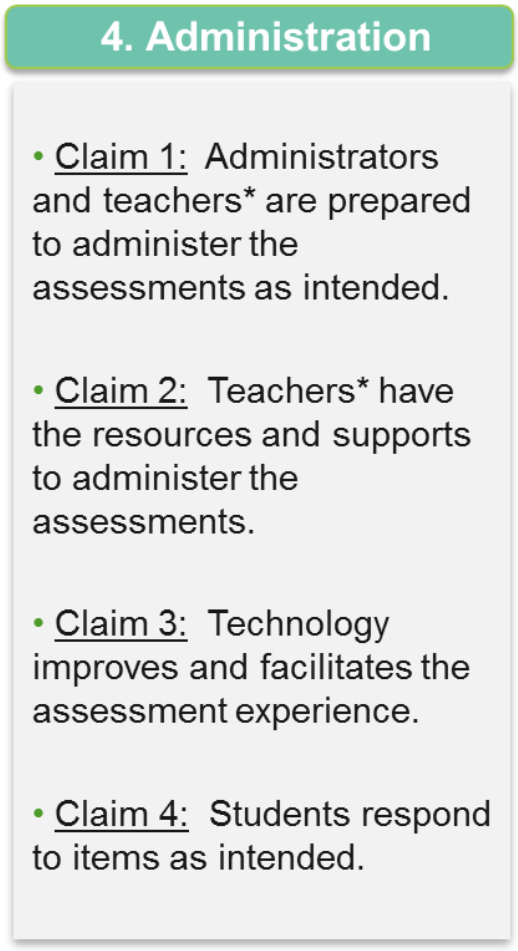

Figure 1. Claims from the Administration Phase of the PARCC Theory of Action.

*The Quality of Test Administration research studies focus specifically on Test Administrators (TAs). Consequently, for the purposes of this report, Claims 1 and 2 are investigated specifically for TAs.

The findings from the research studies on test administration provide evidence in relation to the claims from the Test Administration phase of the PARCC TOA. A summary of these findings is presented next. Throughout this report, references are made to activities that address the *Standards for Educational and Psychological Testing* (hereafter referred to as the *Standards* [AERA, APA, & NCME, 2014]).

Claim 1: TAs are Prepared to Administer the Assessments as Intended

In order for this claim to be true important assumptions that must be verified are: (a) TAs are trained to administer the assessments and (b) training is effective. Findings related to several of the research questions provide evidence for these assumptions and for the overall claim of preparedness.

The research questions that provide evidence related to Claim 1 are:

- Research Question 2: To what degree do the TAs follow the protocols and instructions? (*addresses Standards 6.1 and 6.2*)
- Research Question 6: Are there any apparent attempts to record or copy test materials including the test questions by students or others? (*addresses Standards 6.6 and 6.7*)
- Research Question 8: If any disruptions, interruptions, or other problems occurred, did the test administrators deal with the issue appropriately and effectively? (*addresses Standards 6.1 and 6.3*)
    - Research Question 8a: Were the TAs' actions informed by training, by background experience, or a combination of the two? (*addresses Standard 6.1*)
    - Research Question 8b: Would a different approach have been more effective?
- Research Question 9: Was security of test materials maintained at all times? (*addresses Standards 6.6 and 6.7*)

The following support was evidenced for Claim 1 and for the research questions mapped to Claim 1:

- The majority of TAs administering CBTs and PBTs reported that the PARCC online trainings, particularly the Introduction to PARCC module, effectively prepared them to administer the PARCC assessments.
- Even higher percentages of TAs reported that the training they received from their school effectively prepared them to administer PARCC assessments.
- Most TAs reported that they gained additional familiarity with PARCC content via sample items, practice tests, and the PARCC tutorial on TestNav (CBT only) prior to test administration.

- TAs followed standardized procedures during test administration with very few exceptions, and test security was maintained at all times with no apparent attempts to record or copy test materials.
- In only one of the 109 observed test sessions did the TA deviate from the test administration script; this represented a notable improvement from the field test.
- The vast majority of TAs reported reading the Accessibility Features and Accommodations (AFA) Manual prior to test administration; this was a notable increase from the field test.
- The majority of TAs agreed that the AFA trainings and materials effectively prepared them to administer AFAs.

Potential areas on which to focus/take into consideration:

- Just over half of the TAs indicated that the PARCC trainings/materials effectively prepared them to handle basic technology-related problems (CBT). While still a majority, this result compares less favorably than other findings regarding the effectiveness of trainings/materials.
- Only about one-third of TAs administering PBTs indicated that they worked with the PARCC paper-based student tutorials prior to test administration.
- Most TAs were unaware of whether the AFAs that were pre-identified in the PNP were made available to students during a practice session, and most were also unaware as to whether changes were made to a student's PNP or AFAs during test administration.

Suggestions for consideration to help further strengthen support for Claim 1:

- Ensure that schools are well-informed in all aspects of PARCC test administration well in advance of the testing windows. The type of training that received the highest effectiveness rating was the training provided at the school-level. This underscores the importance of ensuring that schools have all the resources and materials they need to effectively train their staff well in advance of the testing window. This includes ensuring that the finalized TA Manuals are available in a timely manner.
- More emphasis should be placed on ensuring that all TAs complete the PARCC tutorials prior to test administration, particularly for TAs administering PBTs. Of those who completed the tutorials, the vast majority agreed that the tutorials helped better prepare them to administer the PARCC assessments. Nonetheless, approximately one-third of TAs administering CBTs indicated that they did not review the PARCC tutorials prior to test administration and two-thirds of TAs administering PBTs indicated that they did not review the PARCC tutorials prior to test administration. (*It should be noted that PARCC has placed additional emphasis on the tutorials and practice test sections in the manual to further emphasize the importance of administering these to students prior to*

testing. PARCC has also created a pre-administration guidance document that has a whole section devoted to instructional supports and to encourage the use of tutorials and practice tests.)

- Enhance the training on handling basic technology-related problems. Only slightly more than half of the TAs agreed that the PARCC online trainings effectively prepared them to resolve basic problems related to technology during test administration. Particular attention should be given to handling local technology-related issues with logging students onto the assessment and with students getting kicked off the assessment as these were the two most frequently reported types of technology-related problems encountered during test administration. (*It should be noted that PARCC has changed the PearsonAccess^{next} module to be broken into smaller, task-based modules. The aim of this change is that TAs will be able to view the shorter modules just prior to testing to refresh their memory on basic technology functions for testing. PARCC also added a new troubleshooting computer-based errors section to the manuals with direct links to common error messages to help provide transparency and a direct link to support information.*)
- Provide additional guidance to TAs on how to handle student questions that arise during testing. In particular, provide guidance on how to handle student questions on navigating through the test.
- Rethink the guidance provided in the TA Manual for the use of the timing box during test administration. Many TAs did not use the timing box exactly as it is described in the TA Manual. For example, many TAs provided verbal updates on time remaining as opposed to writing the time remaining in a timing box. Also, many TAs provided more frequent updates on time remaining than what is specified in the TA Manual. If flexibility in managing time is acceptable, consider revising the TA Manual to indicate that the timing box is one example of how to manage the time during the test session. Otherwise, if flexibility in managing time is not desirable, then consider providing more definitive instructions in the TA Manual on how time must be managed via use of a timing box. (*It should be noted that PARCC has added an improved materials/timing box to the script to add clarity for tracking time during testing.*)
- Improve the process for identifying AFAs in advance via the Personal Needs Profile (PNP) so that it is clearer and easier to follow. Also, the majority of TAs responded either "no" or "not sure" when asked whether all the AFAs identified in the PNP were made available to students during a practice session. Consequently, PARCC may want to incorporate additional scrutiny to ensure that students who need AFAs are indeed given the opportunity to practice with those AFAs prior to actual test administration. (*It should be noted that PARCC has changed the PNP process to be identified during the student registration process so that this information is gathered earlier. Additionally, the*

PARCC Accessibility Features and Accommodations Manual has been revised to include a whole section devoted to the tasks to be completed before, during, and after testing for each accommodation. This revision more clearly outlines the tasks that need to be completed related to accommodations. PARCC has also placed additional emphasis on the tutorials and practice test sections in the manual to further emphasize the importance of administering these to students prior to testing. PARCC also created a pre-administration guidance document that has a whole section devoted to instructional supports and to encourage the use of tutorials and practice tests.)

Claim 2: TAs Have the Resources and Supports to Administer the Assessments

For Claim 2 to be true important assumptions that must be met are: (a) resources and supports must be clear, sufficiently detailed, and easy to follow, and (b) resources and supports must not be overly burdensome for TAs to use and apply.

The research questions that provide evidence for this claim and these assumptions are:

- Research Question 1: To what degree do the test administrators (TAs) find the instructions clear, sufficiently detailed, and easy to follow? (*addresses Standard 4.15*)
- Research Question 10: Did the test administration create minimal disruption to the school and staff?

The following support was evidenced for Claim 2 and for the research questions mapped to Claim 2:

- The vast majority of TAs for Year 1 agreed that the policies and procedures in the TA Manual were easy for them to understand, a notable increase from the field test.
- The vast majority of TAs for Year 1 agreed that the instructions (including the scripts) in the TA Manual were easy for them to implement, a notable increase from the field test.

Potential areas on which to focus/take into consideration:

- Most TAs and TCs stated that the administration of the PARCC assessment required more time and resources to administer than previous state tests.
- The TAs and TCs indicated that the number of staff hours required for preparation was greater for the administration of the PARCC assessment than for prior state tests.
- The TAs and TCs indicated that PARCC was more disruptive to the curriculum schedule than prior state tests.

The primary recommendation to help strengthen support for Claim 2 is one that is already being implemented by PARCC—that is, to reduce the amount of resources necessary to administer PARCC by collapsing the PBA and EOY testing windows.

Claim 3: Technology Improves and Facilitates the Assessment Experience

For this claim to be true an important assumption that must be met is that the technology must work as intended. If the technology does not work as intended—for example, if there are functionality problems and/or delays in its application, then the veracity of this claim is threatened.

The evidence for this claim comes directly from Research Question 7a:

- Are there any technology-related problems during test administration? *(addresses Standards 6.3 and 6.4*)

The following support was evidenced for Claim 3 and for the research question mapped to Claim 3:

- Fewer problems with technology were observed during test administration in Year 1 and when problems did occur, the severity of the problems was much less than those observed during the field test.
- Students reported substantially fewer problems with the technology in Year 1 than in the field test.
- Very few students reported having problems with the highlighter tool, the magnification tool, the calculator tool (mathematics) and navigating between passages/stories (ELA), which was consistent with findings from the field test.

Potential areas on which to focus/take into consideration:

- Most TAs reported that they encountered one or more problems related to technology during the test administration. These findings were similar to the findings from the field test. (*It is important to note that PARCC has added a section to the manuals to provide additional emphasis and guidance on the importance of conducting an infrastructure trial to reduce the frequency of technology related problems.*)
- TAs most frequently encountered problems with logging into the assessment and with the system disconnecting/logging off.
- Students also reported “difficulty logging on” as one of the most frequently encountered technology-related problems.
- Students also reported difficulties with dragging or moving objects on the screen.
- Some students reported difficulty entering math symbols and numbers.
- Some students reported difficulty finding information in stories/passages.
- There are substantive numbers of students who are not using the tools/features embedded in the computer-based tests (CBTs).

Suggestions for consideration to help further strengthen support for Claim 3:

- Provide a more targeted focus on reconciling local technology-related issues with getting students logged on and with the system disconnecting.
- Place more emphasis on ensuring that students take advantage of the tools embedded within the CBTs given that substantive numbers of students indicated that they did not use these tools and features.
- Provide students with additional practice on entering math symbols and numbers prior to test administration. (*It should be noted that PARCC has developed a standalone equation editor for teachers to use with students for advanced practice.*)
- Provide students with additional practice on finding information in passages/stories on the ELA assessment prior to test administration.

Claim 4: Students Respond to Items as Intended

Finally, for Claim 4 to be true, several assumptions must be verified. First, for students to respond to items as intended, they must understand the directions read by the test administrator (i.e., the script). Second, students must also understand the directions they read for the questions on the test. If the students do not understand the directions read by the TA and/or if they are confused by the directions they read on the test, then they may not respond to the items as intended. Third, to respond to items as intended, students need to have some engagement with the assessment. If they are not engaged or if they have a low level of engagement, then they might not sufficiently attend to items so as to respond to them as intended. Many factors might negatively impact student engagement.

The research questions that provide evidence for this claim and these assumptions are:

- Research Question 3: Do the students appear to understand the instructions provided to them? (*addresses Standards 4.16 and 6.5*)
- Research Question 4: To what degree are students engaged in taking the test? (*addresses Standards 4.16, 6.3, 6.4, and 6.5*)
- Research Question 5: Is there any disruptive student behavior during the session? (*addresses Standard 6.4*)
- Research Question 7: Are there any interruptions during the session? (*addresses Standards 6.3 and 6.4*)
    - Research Question 7a: Are there any technology-related problems during test administration?
    - Research Question 7b: What type of questions, if any, do students ask during the test administration? (*also relevant to Standards 4.16 and 6.5*)

The following support was evidenced for Claim 4 and for the research questions mapped to Claim 4:

- The vast majority of students report that they understood the directions (i.e., script) read by their TA. This finding was similar to the finding from the field test.
- The vast majority of TAs agreed that students appeared to understand the instructions they read to them and that the instructions covered all of the information necessary to take the test. These findings reflect a notable increase from the field test to Year 1, which suggests that the improvements that PARCC made to the script in the TA Manual since the field test were beneficial.
- TAs effectively kept distractions such as, outside visitors and disruptive student behaviors to a minimum.
- Technology-related problems were not likely to be a major disruption, as they were in the field test, given that most issues were minor in nature and resolved within a couple minutes.
- In nearly all instances, the TAs handled student questions appropriately, thereby suggesting that distractions caused by students asking questions were minimized.
- Most of the questions on the test covered topics students had already learned about in school.
- Most students were very familiar with the mode of assessment (CBT) and they preferred that mode of assessment.
- Feedback obtained from the TAs in the debriefing interviews and comments made by observers on the observation checklist indicated moderate to high levels of student engagement.

Potential areas on which to focus/take into consideration:

- The Student Surveys asked students, “How often was it hard to understand the directions for the questions on this test?” the majority of students responded that it was hard to understand the directions for the questions on the test “some of the time” and nearly a third of students taking the mathematics assessments and nearly a fourth of students taking the ELA assessments responded that it was hard to understand the directions for the questions on the test “most or almost all of the time.” These findings were similar to the findings from the field test.
- Test difficulty emerged as a potential factor that might have negatively impacted student engagement, particularly for the mathematics assessments. Most students reported that the mathematics assessments were harder than their school work.

Suggestions for consideration to help further strengthen support for Claim 4:

- Improve directions for questions on the test, such as simplifying the instructions for answering the questions, to enhance students' understanding. Roughly one-third of TAs indicated that students asked questions about where to mark their answers and enter their responses (CBT and PBT), and more than one-third indicated that students asked questions about how to find and use tools (CBT). Consequently, these might be two aspects of instructions that could be clarified. If students are better able to understand the instructions on the test, then the test might not seem so difficult to students.
- Encourage greater participation in opportunities to practice with PARCC content prior to test administration, particularly completion of the student tutorials, as results indicate that fewer students practiced with tutorials than with sample items and practice tests. Greater familiarity to the PARCC content prior to test administration may also help students better understand the instructions on the test.

Conclusion

Overall, the findings from the Test Administration Study for Year 1 represent notable improvements in the validity evidence collected from the field test. In particular, the findings indicate stronger support for all four of the test administration claims in the Theory of Action:

- Claim 1: TAs are prepared to administer the assessments as intended.
- Claim 2: TAs have the resources and supports to administer the assessments.
- Claim 3: Technology improves and facilitates the assessment experience.
- Claim 4: Students respond to items as intended.

The primary threats to the veracity of these claims, as identified through this Test Administration Study, are:

- Continued problems of a local nature with logging students on and with students getting kicked-off the system.
- The amount of time and staff required for administering PARCC assessments has been overly burdensome on schools' resources.
- Many students are having difficulty understanding the directions on the test for answering test questions.

These concerns should be addressed for future operational assessments, as threats to the veracity of the test administration claims may undermine the validity of subsequent goals in the PARCC theory of action (i.e., valid scoring, reporting and use of test scores). Several recommendations for addressing these threats have been offered for consideration.

It should be noted that a memo of preliminary findings from this Test Administration Study was submitted to PARCC leadership in June 2015. As a result of the findings and suggestions provided in this preliminary memo, PARCC has already made changes to the manuals that will be used for the 2nd operational year, which include:

1. The manuals were streamlined, reducing a great deal of redundancy.
2. The Fall/Winter Test Coordinator Manual was reduced by 46 pages compared to last year.
3. The Test Administrator Manuals were reduced by more than half the pages compared to the 2015 Spring Administration (now 59-64 pages).
4. The structure of the manuals was changed to better align to local practices. These changes include restructuring the sections in the TCM and TAM to tasks before, during, and after testing and separating the CBT and PBT sections in the TCM.
5. Additional content was added to further clarify procedures around using PearsonAccess^{next} and after testing tasks.
6. Policies were analyzed and adjusted accordingly to feedback from the field, including increasing the testing multiple classrooms flexibility and no longer requiring students to write names on scratch paper.
7. PARCC is already working on the spring manuals, which will include great reductions to the student directions and the administrator scripts.

Throughout this report, references are made to actions that PARCC has already taken or is taking to address concerns identified in Year 1 relevant to test administration.

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Findings from the PARCC Quality of Test Administration Investigations

Purpose

The purpose of the research studies described in this report was to investigate the quality of test administration for the Partnership for Assessment of Readiness for College and Careers (PARCC) for the 2014-2015 school year (i.e., Year 1 of operational administration). Findings from these studies can be used to identify potential threats to the validity of PARCC test administration so that those threats can be addressed and reconciled for future test administrations. Throughout this report, threats are identified and suggestions for ameliorating those threats are provided. This report serves as an update to the Quality of Test Administration Study report from the field test (Sinclair, Deatz, Johnston-Fisher, Levinson, & Thacker, 2015), and, where appropriate, comparisons are made with findings from the Quality of Test Administration Study from the field test.

Background

PARCC scores are intended to be interpreted and used as an indication of whether students are on track in their learning to be successful in college and their careers.[1] This is commonly referred to as "college and career readiness," or CCR. Based on the stated claims and purposes of the PARCC assessments as described in PARCC's publicly available documentation, a ***Theory of Action*** (TOA) was developed with the end goal of college and career readiness (see PARCC Validity Studies Memorandum; Thacker, Sinclair, Wise, & Becker, 2014). A theory of action indicates the intended uses and expected impact of an assessment system and informs *testable claims* related to the interpretation of test scores (i.e., the ***Interpretive Argument***). The evidence to support those claims and assumptions represents the ***Validity Argument***.

The TOA for PARCC (see Figure 2) is organized as a series of interim goals that lead to the end goal of CCR. Each interim goal is a prerequisite for supporting the subsequent interim goals. Again, the end goal of the PARCC assessment system is that PARCC scores in ELA and Mathematics provide an indication that students are, or are not, college and career ready (CCR), or on track to become CCR for younger students. In order to attain the end goal of CCR, each of the interim goals (denoted by the column headers in Figure 2) must be met. Lack of support for any of the interim goals potentially undermines the validity of the system to meet its end goal. This study, like the study from the field test, addresses the interim goal of effective test administration (denoted by column #4, "Administration" in Figure 2).

[1]From PARCC website: http://www.parcconline.org/about-parcc.

1 Design	2 Development	3 Implementation	4 Administration	5 Scoring	6 Reporting	7 Use
• **Connects to CCSS** • **Determines whether students are CCR or on track to be CCR** • **Measures full range of student performance, including high- and low-achieving students** • *Tests are faster and more efficient to administer* • *Informs instruction, interventions, and professional development* • **Provides data for accountability, including measures of growth** • **Incorporates innovative approaches, including technology, that are interactive and engaging** • *Administered on range of devices* • **Provides multiple measures of student achievement** • **Includes range of item types** • **Captures critical-thinking, problem-solving, and communication skills** • *Provides timely results* • **Accommodations are appropriate for SWD and ELL students** • **Assessments are accessible to SWD**	• **Subject matter, presentation, and language use is free of potential bias and is acceptable to students, parents, and other community members** • **Items are of sufficient quality and rigor** • *Teachers provided with instructional materials, professional development and other supports to enable them to effectively instruct students on CCSS curriculum so that students can demonstrate their achievement on the assessments* • **Schools have the resources and infrastructure to implement and administer the assessments as intended** • *Educators from across the country are trained by PARCC to become leaders and experts to share their knowledge and expertise within their community*	• *Teachers effectively instruct students on CCSS-aligned curriculum* • **Communication plan clearly conveys to stakeholders the policies and practices essential for effective implementation of assessment system** • **Students understand the format of the assessments and how to use the technology** • **Test vendors, departments of education, school districts, and schools are coordinated in the assessment process**	• **Administrators and teachers are prepared to administer the assessments as intended** • **Teachers have the resources and supports to administer the assessments** • **Technology improves and facilitates the assessment experience** • **Students respond to items as intended**	• *Timely scoring* • **Rubric is diagnostic** • **Scores accurately and reliably reflect student achievement on the assessed content** • **Growth inferences provide accurate information on changes in student performance.** • **Scores from multiple PARCC assessments provide both unique and complementary information.** • **Cut score is indicative of college- and career-readiness** • **Inferences across forms and years are appropriately comparable.**	• **Score reports are clear and easily understood by stakeholders** • *Results reported in a timely manner* • *Results reported in score reports are actionable*	• *Students use results to determine if they are on track to graduate ready for college and careers, and to identify where gaps may exist* • *Teachers use results to help inform instruction, and provide supports and interventions to students with readiness gaps* • *Parents have timely information about the progress of their children* • *States compare their results with other states to make decisions about their relative performance and use that information to better plan for and develop future workforce* • *Nation compares its performance to other countries to make decisions about relative performance and use that information to better plan for and develop future workforce*

Figure 2. The TOA for the PARCC assessment system.

Note. **Bold** font indicates claims related to test score interpretation and *italics* indicate claims regarding impact/consequences of test scores. Reference: Thacker, A., Sinclair, A., Wise, L., & Becker, S. (April 10, 2014). *PARCC validity studies including predictive and longitudinal studies memorandum* (HumRRO Report 2014 No. 020). Alexandria, VA: Human Resources Research Organization.

In order to have a quality test administration, certain *claims* must be met. Those claims are depicted by the bullet points under the Administration heading in the TOA. They are: (a) Administrators and teachers[2] are prepared to administer the assessments as intended, (b) Teachers have the resources and supports to administer the assessments, (c) Technology improves and facilitates the assessment experience, and (d) Students respond to items as intended. These claims served as a guide for identifying assumptions that must be met for those claims to be true. Those assumptions relate to the research questions guiding the investigations of the quality of PARCC test administration. The research questions and the investigations designed to address those questions were proposed by HumRRO to PARCC leadership and revised after multiple rounds of feedback from PARCC leadership during the PARCC field test. Those same research questions and investigations were used to guide the Quality of Test Administration Study for Year 1 of the operational PARCC test administration.

Throughout this report, references are made to findings that relate to the administration criteria from the *Standards for Educational and Psychological Testing* (hereafter referred to as the *Standards*). The *Standards* provide criteria for the development and evaluation of tests and testing practices as well as guidelines for assessing the validity of interpretations of test scores for the intended test uses (AERA, APA, & NCME, 2014, p. 1). This study's research questions and the *Standards* they address are presented next.

[2]The PARCC assessment was administered by "Test Administrators" (typically teachers). Given that PARCC refers to the individuals administering the tests as "Test Administrators" as opposed to "teachers," the current report treats all references to "teachers" in the Administration phase of the TOA as "Test Administrators."

This study's research questions and the *Standards* they address:

1. To what degree do the test administrators (TAs) find the instructions clear, sufficiently detailed, and easy to follow? *(addresses Standard 4.15)*
2. To what degree do the TAs follow the protocols and instructions? *(addresses Standards 6.1 and 6.2)*
3. Do the students appear to understand the instructions provided to them? *(addresses Standards 4.16 and 6.5)*
4. To what degree are students engaged in taking the test? *(addresses Standards 4.16, 6.3, 6.4, and 6.5)*
5. Is there any disruptive student behavior during the session? *(addresses Standard 6.4)*
6. Are there any apparent attempts to record or copy test materials, including the test questions, by students or others? *(addresses Standards 6.6 and 6.7)*
7. Are there any interruptions during the session? *(addresses Standards 6.3 and 6.4)*
   a) Are there any technology-related problems during test administration?
   b) What type of questions, if any, do students ask during the test administration? *(also addresses Standards 4.16 and 6.5)*
8. If any disruptions, interruptions, or other problems occurred, did the TAs deal with the issue appropriately and effectively? (*addresses Standards 6.1 and 6.3)*
   a) Were the TAs' actions informed by training, by background experience, or a combination of the two? *(addresses Standard 6.1)*
   b) Would a different approach have been more effective?
9. Was security of test materials maintained at all times? *(addresses Standards 6.6 and 6.7)*
10. Did the test administration create minimal disruption to the school and staff?

Relevant Standards from the *Joint Standards*

Standard 4.15: The directions for test administration should be presented with sufficient clarity so that it is possible for others to replicate the administration conditions under which the data on reliability, validity, and (where appropriate) norms were obtained . . .

Standard 4.16: The instructions presented to test takers should contain sufficient detail so that test takers can respond to a task in the manner that the test developer intended. When appropriate, sample materials, practice or sample questions, criteria for scoring, and a representative item identified with each item format or major area in the test's classification or domain should be provided to the test takers prior to the administration of the test . . .

Standard 6.1: Test administrators should follow carefully the standardized procedures for administration and scoring specified by the test developer and any instructions from the test user.

Standard 6.2: When formal procedures have been established for requesting and receiving accommodations, test takers should be informed of these procedures in advance of testing.

Standard 6.3: Changes or disruptions to standardized test administration procedures or scoring should be documented and reported to test users.

Standard 6.4: The testing environment should furnish reasonable comfort with minimal distractions to avoid construct-irrelevant variance.

Standard 6.5: Test takers should be provided appropriate instructions, practice, and other support necessary to reduce construct-irrelevant variance.

Standard 6.6: Reasonable efforts should be made to ensure the integrity of test scores by eliminating opportunities for test takers to attain scores by fraudulent or deceptive means.

Standard 6.7: Test users have the responsibility of protecting the security of test materials at all times.

The next section of the report outlines the method used to collect evidence for the research questions on test administration.

Method

Three separate research investigations were designed to collect information on the interim goal of effective test administration. Those three research investigations are: 1) school visits to test administration sites to conduct observations of test administration and to conduct interviews with school staff, 2) surveys of Test Administrators (TAs), and 3) surveys of student test-takers. These three investigations provide different perspectives on the test administration, and thereby help to triangulate the findings related to the research questions. The research questions addressed by each study/data collection activity are depicted below in Table 1.

Table 1. Research Questions Mapped to Data Collection Activity

				School Visits	
	Research Questions	TA[a] Survey	Student Survey	Obs[b]	Int[c]
1	To what degree do the test administrators (TAs) find the instructions clear, sufficiently detailed, and easy to follow?	✓			✓
2	To what degree do the TAs follow the protocols and instructions?	✓		✓	
3	Do the students appear to understand the instructions provided to them?	✓	✓	✓	
4	To what degree are students engaged in taking the test?		✓	✓	✓
5	Is there any disruptive student behavior during the session (e.g., talking during test administration instructions, teasing others)?			✓	
6	Are there any apparent attempts to record or copy test materials including the test questions by students or others?			✓	
7	Are there any interruptions during the session?	✓	✓	✓	✓
	a. Are there any technology-related problems during test administration?	✓	✓	✓	✓
	b. What type of questions, if any, do students ask during the test administration?	✓		✓	✓
8	If any disruptions, interruptions, or other problems occurred, did the TAs deal with the issue appropriately and effectively?	✓		✓	
	a. Were the TAs' actions informed by training, by background experience, or a combination of the two?	✓		✓	
	b. Would a different approach have been more effective?				✓
9	Was security of test materials maintained at all times?			✓	
10	Did the test administration create minimal disruption to the school and staff?			✓	✓

[a]TA = Test Administrator. [b]Obs = Observation. [c]Int = Interview.

Next, the procedures, instruments, and participants used for each of the studies are described.

Study 1: School Visits to Test Administration Sites

Procedure. HumRRO researchers visited administration sites to observe the administration of the PARCC Performance-Based Assessment (PBA) and End-of-Year (EOY) operational test during the spring 2015 testing window—that is, Year 1 of operational testing. We based these observations on a successful protocol that HumRRO uses to ensure test administration quality for the National Assessment of Educational Progress (NAEP). That protocol is composed of detailed observation checklists that trained HumRRO staff use to document task completion during a sample of test administrations. HumRRO revised the protocol based on the PARCC Test Administrator Manual, guidance from PARCC leadership, and feedback received after using the protocol during the PARCC field test study in 2014.

We also conducted short debriefing interviews with school Test Administrators (TAs) or Test Coordinators (TCs) directly after observing a test session if time permitted.

After observation and interview protocols were reviewed and approved by PARCC leadership, but prior to visiting schools, HumRRO conducted internal training for selected staff. Although the HumRRO research staff selected for the school visits were experienced, it was essential to provide them with information tailored to this project. HumRRO conducted the training with staff via teleconference, with interested Pearson and PARCC staff in attendance. The training covered the following topics:

- An overview of PARCC and the 2015 operational test administration
- PARCC assessment system and materials
- What to expect when observing
- Observation checklist (detailed review)
- Interview debriefing protocol (detailed review)
- Observer conduct during school visits
- Coordination with the sampled schools
- What to take with you (e.g., observation forms, job aid, PARCC manual excerpts)

A key aspect of the training was a detailed review of the observation checklist (described below) to ensure that observers had a common understanding of each “task” (i.e., the activities performed by the TAs during testing) for rating consistency across observers. Observers learned what they would see when the task is conducted, or in some cases, how they would know if a task is completed. This is an important discussion since it can be unclear at times which rating is most appropriate to use. For example, for the task, “Monitor student progress using administration computer,” if the observer can see the TA looking at TestNav usage screens during the assessment, then the observer was trained to rate the task as “Met” on the observation checklist.

Additionally, procedures for interacting with the schools, school personnel, and students were reviewed during the training. Observers were trained not to move around the testing room, interfere with or provide guidance to test administrators, or interact with students. The observers were instructed to be as unobtrusive as possible during the site visits.

The HumRRO researchers assigned to visit schools were directed to contact the school's PARCC test coordinator to verify the testing date and time, address any last minute logistical details, and to provide assurance that we were not visiting to evaluate the school or their staff. Observers arrived at the schools wearing their PARCC photo ID cards. They followed the school sign-in procedures, and they were accompanied by the test coordinator or TA to the testing room. The observers positioned themselves near the administration computer when possible and remained seated (once students arrived) throughout the test. They used applicable resources (excerpts from the TA manual or a job aid[3]) and entered their observation ratings and notes into the observation form using either their laptops or paper copies of the observation (if a school requested that no laptops be used in the testing room). Afterwards, they conducted a debriefing interview with the TA and/or Test Coordinator (TC), if possible.

Instruments. HumRRO developed two data collection instruments for use during test administration observations. The first instrument contained a list of activities ("tasks") performed by the TA that were based on the guidance for test administration in the PARCC Test Administrator (TA) Manual. There was one version for observing paper-based tests (PBTs) and another version for observing computer/tablet-based tests (CBTs). Observers rated each task on a rating scale (described below). This instrument included space for observer notes so that observers could provide the rationale for their rating, as well as other observations not specifically linked to a particular task. The second instrument, a semi-structured interview protocol, was developed for post-assessment interviews. All instruments were reviewed and approved by PARCC leadership prior to their use.

Test administration observation checklist. We designed the observation checklist as an internal data collection form targeting observable test administration activities. The purpose of the form was to record whether specific administration tasks were conducted and to document exceptions to established procedures, if any were found. HumRRO used the PARCC Computer Based Testing (CBT) Test Coordinator, Administrator, Accessibility Features, and Accommodations manuals to identify the observable tasks included in the checklist.

The observation checklists were Excel® documents that HumRRO observers used to enter data, which were uploaded to Statistical Analysis Software (SAS™) to facilitate aggregated reporting across observations. The observation checklists (for CBT and PBT) can be found in Appendix A.

[3]This was a resource developed by HumRRO and PARCC staff containing the procedures used to administer accommodations.

The observers were trained to rate each task on a five-point rating scale. The rating scale and a description of each scale anchor are presented below in Table 2.

Table 2. Rating Scale for Observation Checklist

	Rating	Description
1	Met	The task was completed.
2	Partially Met	Some parts of the task were not completed.
3	Did Not Meet	The observer knows that the task was not completed.
4	Not Observed	The task was likely completed but was not directly seen by the observer.
5	Not Applicable	The task is not intended to be completed in certain situations.

To support the use of the observation checklist when observing accommodation sessions, HumRRO developed an accessibility and accommodation guide. Since the tasks the TAs follow vary for each testing accommodation that students require, as specified in their Individualized Education Program (IEP), listing all possible combinations in the checklist was not feasible. Observers used the guide, based on PARCC accommodation documents (e.g., manual, training slides), to inform their ratings while observing an accommodation session.

Test coordinator and administrator debriefing interview protocol. To obtain additional information regarding the overall test administration experience of the TA, TC, and other school or district staff (e.g., other teachers helping the TA, technology personnel), we developed an interview protocol form as a guide for conducting post-assessment interviews. If time permitted, HumRRO observers asked the TA and other applicable staff about their experiences and feedback regarding the testing process, training materials, and support from PARCC leadership. See Appendix B for the debriefing interview protocol, one for CBT and PBT administrations.

Participants and School Visits. HumRRO sampled schools in the following 10 PARCC states: Arkansas, Colorado, District of Columbia, Illinois, Maryland, Massachusetts, New Jersey, New Mexico, Ohio, and Rhode Island. PARCC leadership provided HumRRO contact information for a point of contact (POC) at each state department of education. The goal was to complete observations in 100 schools, 10 from each state, distributed across the PBA and EOY test administrations. Additional factors that were considered when selecting and scheduling schools included: CBT and PBT administrations, academic content areas (Mathematics and ELA/Literacy), grade spans (elementary, middle, and high schools), and geographic locale.

School recruiting was a multistep process. First, for PBA administrations, HumRRO determined the geographic area we would visit for each state and asked our state level POC to provide us contact information for the identified district POCs and to send a pre-emptive email to the district POCs to inform them that they would be contacted by HumRRO. We selected 5-10

schools in the identified districts and provided that list to the district POC to help us recruit schools by sending an email to the schools' TCs and copying HumRRO on that email. We followed up that email to the schools with a document introducing HumRRO and this PARCC study. This document also included a request to observe a PARCC test administration session and to obtain the school's testing schedule. We also reinforced our commitment to observe testing as unobtrusively as possible and we assured schools that our findings would be reported in aggregate only. We informed schools that we were not evaluating the school or school staff, but focusing only on the administration of the PARCC operational test for quality assurance and process improvement purposes.

During the 2014-2015 school year, we visited a total of 99 schools and observed 109 test sessions (see Table 3). As explained in the PARCC-approved study plan, we conducted a brief debriefing interview with the TAs and/or TCs directly after the observed test administration when time permitted. We anticipated that for operational testing most sessions would run back-to-back and that TAs would not have time for an interview. However, of the 99 completed school visits, we were able to conduct 88 interviews (43 PBA and 45 EOY) at 85 different schools. There were three schools where we observed more than one test administration, for example a CBT and PBT administration, with different TAs.

Table 3. Summary of PARCC School Visits

				PBA Breakout				EOY Breakout			
	Number of Schools			Number of Observations				Number of Observations			
State	PBA	EOY	Total	CBT	PBT	Total	Total Int[a]	CBT	PBT	Total	Total Int[a]
Arkansas	5	5	10	3	2	5	4	5	1	6	2
Colorado	5	5	10	6	0	6	5	5	0	5	3
District of Columbia	5	5	10	4	1	5	4	5	0	5	3
Illinois	4	6	10	3	2	5	5	4	2	6	5
Maryland	6	6	12	9	0	9	4	7	1	8	6
Massachusetts	4	3	7	1	3	4	4	2	1	3	4
New Jersey	5	5	10	5	0	5	6	5	0	5	5
New Mexico	5	6	11	5	0	5	5	4	1	5	7
Ohio	0	9	9	0	0	0	0	12	0	12	10
Rhode Island	5	5	10	4	1	5	6	3	2	5	0
Total	**44**	**55**	**99**	**40**	**9**	**49**	**43**	**52**	**8**	**60**	**45**

Note. There was not a one-to-one correspondence between the number of schools and the number of observations or interviews conducted at a school. In several instances, multiple observations/interviews were conducted at a school. Consequently, the sum of the number of observations/interviews does not always equal the number of PBA schools and the number of EOY schools.
[a]Int = Interview.

Additional information regarding the distribution of session types, grade spans, and subjects for both PBA and EOY observations are presented in Table 4.

Table 4. Summary of School Visit Demographic Make-up

	Session Type Observed			Grade Span			Subject		
State	Reg[a]	Accom[b]	Makeup	ES	MS	HS	ELA	Math	Alg/Geo
Arkansas	7	4	0	4	4	3	6	5	0
Colorado	11	0	0	4	4	3	6	4	1
District of Columbia	6	1	3	5	3	2	5	5	0
Illinois	9	1	1	9	2	0	6	5	0
Maryland	12	5	0	5	5	7	10	3	4
Massachusetts	6	1	0	6	1	0	4	3	0
New Jersey	7	3	0	3	5	2	5	4	1
New Mexico	7	2	1	7	2	1	3	6	1
Ohio	9	2	1	3	8	1	6	4	2
Rhode Island	7	3	0	5	3	2	2	8	0
Total	**81**	**22**	**6**	**51**	**37**	**21**	**53**	**47**	**9**

[a]Reg = Regular test session. [b]Accom = Accommodation (either in regular or separate sessions).

Study 2: Test Administrator Surveys

Procedure. An online Test Administrator Survey was completed by TAs following administration of the PARCC PBA and EOY assessments. The primary purpose of the survey was to collect information from the perspective of TAs on the effectiveness of the training they received and to identify potential problems that arose during test administration. The TAs were provided a web link to the online survey in their TA manual. They were instructed to log on and complete the survey after test administration was completed. The TAs responded to a separate survey for computer/tablet-based test (CBT) administration and for paper-based test (PBT) administration. The online test administrator survey was available from February 16, 2015 to June 12, 2015, which corresponded to the first day of PARCC test administration and one week after the last day of PARCC test administration.

Instruments. Two separate TA Surveys were developed—one for TAs administering CBTs (see Appendix C) and an edited version for TAs administering PBTs (see Appendix D). Survey items related to technology were not relevant to TAs administering PBTs; hence, the need for different versions of the surveys. Both surveys were based on the surveys developed for the PARCC field test. Both the CBT and PBT TA Surveys were on-line surveys that were hosted on the HumRRO platform. The web links for the surveys were included in the Test Administration manuals along with instructions for TAs to complete the survey within one week after completing test administration. The TA manuals stated that, "If a Test Administrator is administering both the PBA and the EOY, he or she should complete the survey once after each administration." The first question on the survey asked TAs to identify which type of assessment they had most recently administered—PBA or EOY; this question did not appear on the field test version of the TA Survey. For the operational TA Study, the PARCC leadership

requested separate breakout analyses for the PBA administration and the EOY administration. Consequently, this initial question was added to both the CBT TA Survey and the PBT TA Survey for Year 1 of the operational test administration.

The items on the surveys were all close-ended survey items with the exception of two open-ended items—one of which asked for suggestions on improving the PARCC online trainings and a second which asked for recommendations for improving test administration policies and procedures. Per the approved Study Plan for the Quality of Test Administration Study, the open-ended responses to these survey items have been provided to PARCC leadership and to the states for analysis.

Participants. There were 28,031 cases in the raw data file for the CBT TA Survey. Respondents who did not complete any items on the survey or who only responded to the background survey items and/or who only responded to one or two other items on the survey were removed from the data set. This resulted in 21,777 respondents for the CBT TA Survey, with 10,545 of those responding for the PBA administration of the CBT and 11,232 of those responding for the EOY administration of the CBT.

There were 5,043 cases in the raw data file for the PBT TA Survey. Likewise, respondents who did not complete any items on the survey or who only responded to the background survey items and/or who only responded to one or two other items on the survey were removed from the data set. This resulted in 3,805 valid respondents to the PBT TA Survey, with 2,336 of those responding for the PBA administration of the PBT and 1,469 of those responding for the EOY administration of the PBT.

The response breakout by state, mode of administration, and assessment type is presented in Table 5. As seen in Table 5, Arkansas, Illinois, and Massachusetts were the states with the largest percentages of TAs responding to the TA Survey for CBT administration, and Illinois and Massachusetts were the states with the largest percentages of TAs responding to the TA Survey for PBT administration.

Table 5. TA Survey Response Breakout by State and by Mode of Assessment Administration

	CBT PBA		CBT EOY		PBT PBA		PBT EOY	
State	N	%	N	%	N	%	N	%
Arkansas	2,358	22.4	2,838	25.4	89	5.1	189	14.5
Colorado	136	1.3	183	1.6	18	1.0	11	0.8
District of Columbia	55	0.5	30	0.3	2	0.1	2	0.2
Illinois	2,264	21.5	1,803	16.1	440	25.3	160	12.3
Massachusetts	693	6.6	752	6.7	662	38.0	449	34.5
Maryland	555	5.3	1,056	9.4	26	1.5	154	11.8
Mississippi	92	0.9	72	0.6	40	2.3	--	--
New Jersey	1,920	18.3	3647	32.6	31	1.8	173	13.3
New Mexico	1256	12.0	330	2.9	57	3.3	44	3.4
Ohio	463	4.4	433	3.9	239	13.7	94	7.2
Rhode Island	718	6.8	44	0.4	136	7.8	25	1.9
All States	10,545[a]	100.0	11,232[b]	100.0	2,336[c]	100.0	1,469	100.0

Note. Percentages are based on the total number of valid (non-missing) responses for each state. Number of respondents for which a response to the location question was missing was n = 35 for CBT PBA; n = 44 for CBT EOY; n = 596[4] for PBT PBA; and n = 168 for PBT EOY.
[a]Includes the 35 cases that did not indicate their state. [b]Includes the 44 cases that did not indicate their state. [c]Includes the 596 cases that did not indicate their state. [d]Includes the 168 cases that did not indicate their state.

Study 3: Student Surveys

Procedure. Upon completion of the CBT EOY PARCC assessments, students had the opportunity to complete a survey about their test-taking experience[5]. Different surveys were administered following completion of Mathematics and ELA assessments. There was considerable overlap in the content of the items on the Mathematics and ELA Student Surveys, although each contained a subset of items specific to the content area being assessed (e.g., question about entering symbols for the Mathematics survey and question about moving between passages for the ELA survey).

Instruments. HumRRO researchers developed draft Student Surveys (one for Mathematics and one for ELA) based on earlier versions of the Student Surveys that were used for the PARCC field test (Sinclair, et al., 2015). The most substantive edit from the field test to operational testing was to replace the "select all that apply" formatted items to "select one" formatted items in order to facilitate data analysis and interpretation. The survey content was reviewed, edited, and approved by PARCC leadership.

[4]There were a disproportionately large number of respondents who did not indicate their state for the PBT TA Survey following PBA administration. Additional scrutiny was conducted to determine if the high number of missing responses to the location question for the PBT PBA might have been due to an issue with the survey; however, no evidence of any systematic issue with the survey was found that might explain why so many respondents skipped the location question on this survey.

[5]The Student Surveys were connected to the TestNav system, and administered and collected by Pearson. The system was configured such that the Student Surveys were only available at the end of the CBT EOY assessments. As such, Student Survey data was not collected following the PBA CBTs, nor from any of the students taking the PBTs.

The items that appeared on the Student Survey for the CBT EOY for Mathematics are provided in Appendix E. The items that appeared on the Student Survey for the CBT EOY for ELA are provided in Appendix F. The items on the surveys were all close-ended survey items with the exception of the final question on the survey, which asked to students to comment about anything that was confusing or unclear on about the test. Per the approved Study Plan for the Quality of Test Administration Study, the open-ended responses to this survey item have been provided to PARCC leadership and to the states for analysis.

Participants. Participants were the students who took the CBT EOY assessments in Mathematics and ELA. Table 6 below identifies the number and percentage of students responding to the surveys in each state and for all states combined. As seen in Table 6, the states with the largest percentages of Student Survey responses were Illinois and New Jersey.

Table 6. Student Survey Response Rates

	Mathematics EOY CBT		ELA EOY CBT	
State	n	%	n	%
Arkansas	256,924	7.21	266,298	7.60
Colorado	354,923	9.96	381,752	10.90
District of Columbia	30,933	0.87	30,799	0.88
Illinois	703,517	19.74	713,566	20.37
Maryland	374,667	10.51	335,775	9.58
Massachusetts	127,621	3.58	127,410	3.64
Mississippi	210,443	5.91	202,001	5.77
New Jersey	732,588	20.56	755,599	21.57
New Mexico	187,726	5.27	188,638	5.38
Ohio	525,142	14.74	443,902	12.67
Rhode Island	59,139	1.66	57,734	1.65
All States	3,563,623	100.0	3,503,474	100.0

Results

The findings from the three studies are presented in this section according to the research question they address. It is should be noted that there are several instances of overlap among the research questions. For example, Research Question 7 (*Are there any interruptions during the session?*) overlaps with Research Question 4 (*To what degree are students engaged in taking the test?* [i.e., interruptions often negatively impact engagement]). Consequently, one set of findings may be relevant to multiple research questions. Thus, there is some redundancy in the reporting of results across research questions; however, in order to reduce the length of the report some results are presented for one research question, but are identified as being relevant to other research questions.

The full set of item-level results for the TA Surveys (with breakouts by state) can be found in Appendix G (CBT version) and Appendix H (PBT version). The full set of item-level results for the Student Surveys (with breakouts by state, and by PBA and EOY) can be found in Appendix I (CBT EOY Math version) and Appendix J (CBT EOY ELA version).

For the TA Survey, it should be noted that the TAs were not assigned a unique login ID for responding to the survey. Consequently, while most of the TAs who responded to the survey after administering the PBA are the same TAs who responded to the survey after administering the EOY, we do not have a true matched/paired sample. Consequently, we did not conduct a matched-pair t-test to investigate whether there are statistically significant differences between TAs' PBA responses and their EOY responses. Moreover, since the two samples are not independent samples it would not be appropriate to conduct an independent samples t-test comparing PBA responses and EOY responses. Therefore, no statistical significance tests were conducted to compare TA survey responses for PBA vs. EOY administrations.

For the Student Survey, it should be noted that the survey was configured such that it was presented to students immediately following completion of the mathematics and ELA assessments, and therefore the student survey responses are considered to represent the full population. Consequently, statistical significance tests were not conducted comparing students' responses on the mathematics and ELA surveys (i.e., statistical significance tests are used to indicate how likely it is that the results are representative of the full population).

For both the TA Survey and Student Survey, the majority of the survey items were rated on nominal or ordinal scales (e.g., "Sufficient time to finish the test?" with response options of: Finished very early, Finished on time, Rushed to finish, Did not finish). Consequently, for both the TA Surveys and the Student Surveys results are presented in terms of frequency counts and percentages, and comparisons between surveys are presented graphically with a focus on substantive (i.e. practical) differences as opposed to statistically significant differences.

Findings for Research Question 1: To what degree do the TAs find the instructions clear, sufficiently detailed, and easy to follow?[6]

The claim in the theory of action most directly related to this research question is, "Teachers have the resources and supports to administer the assessments" (claim 2). The instructions in the Test Administrator Manual serve as the TAs' primary resource for administering the assessments. An important assumption underlying this claim is that this resource (i.e., the TA Manual) is sufficiently clear and detailed, and easy to implement. To verify the veracity of this assumption the TA Surveys asked TAs to rate their agreement with the statements, "The

[6]This research question focuses on the Test Administrator Manual. For information on the effectiveness of the Accessibility Features and Accommodations Manual in guiding TAs in administering AFAs see the results for Research Question 2.

policies and procedures within the Test Administrator Manual were *easy for me to understand*," and "The instructions (including the scripts) within the Test Administrator Manual were *easy for me to implement*." The findings presented in Figure 3 indicate that the vast majority of TAs for Year 1 (over 80%) agreed that the policies and procedures in the TA Manual were easy for them to understand. This is an increase from the TA survey results from the field test where 71% of CBT administrators and 67% of PBT administrators agreed that the policies and procedures in the TA Manual were easy for them to understand. Similarly, the vast majority of TAs for Year 1 (over 80%) agreed that the instructions (including the scripts) in the TA Manual were easy for them to implement, whereas results from the TA Survey from the field test indicated that less than two-thirds of TAs (55% - 63% for PBT and CBT, respectively) agreed that the instructions in the TA Manual were easy for them to implement (see Figure 4).

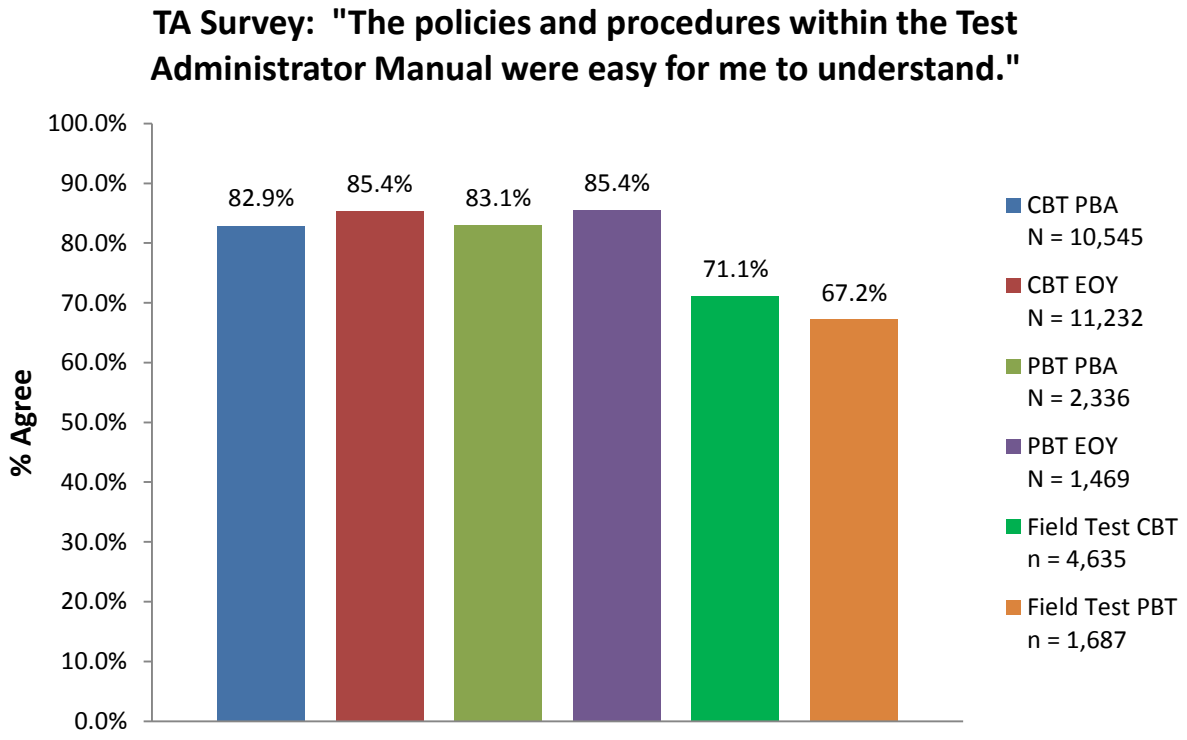

Figure 3. Percentage of TAs agreeing that the TA Manual is easy to understand.
Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses.

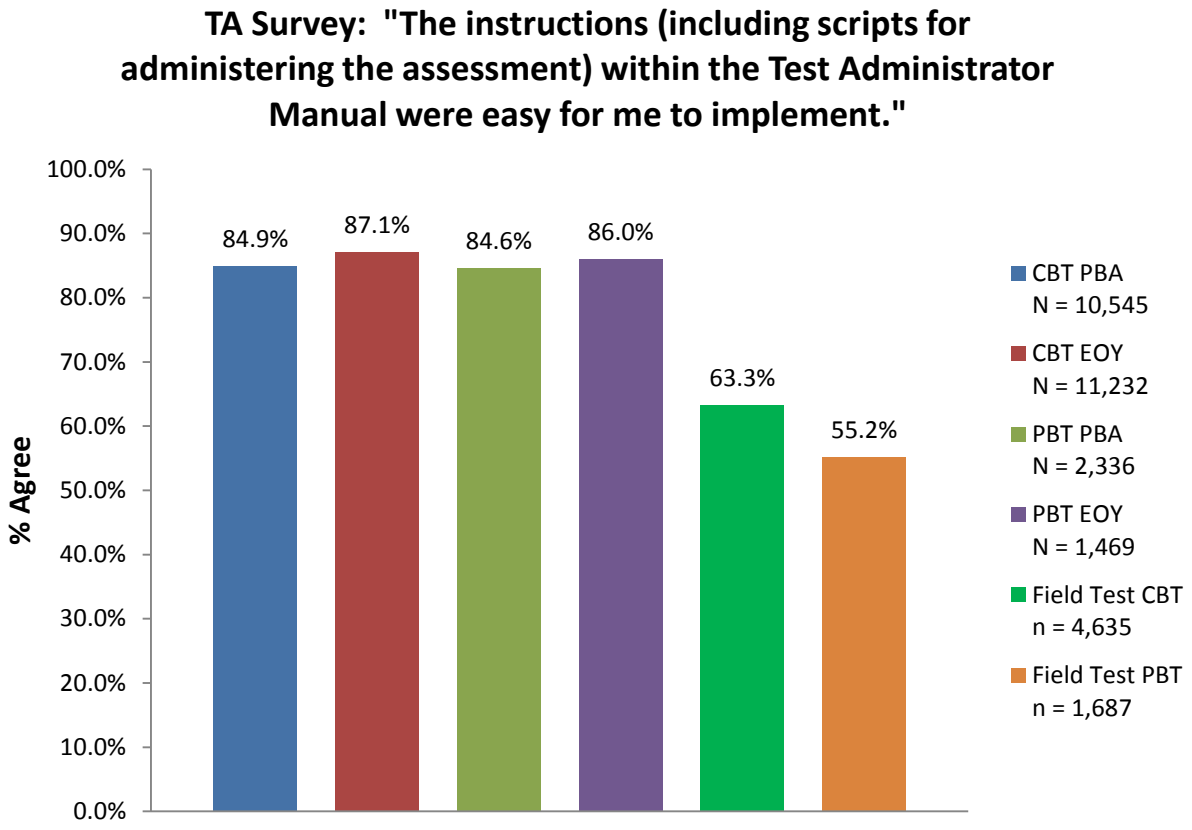

Figure 4. Percentage of TAs agreeing that the instructions in the TA Manual were easy to implement.
Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses.

Another data source for informing Research Question 1 were the debriefing interviews with TAs, which were conducted after observing TAs administering the PARCC test to students. The TAs were asked two questions that directly relate to this research question:

1. Was the test administration manual beneficial in preparing for the test?
2. Were the scripts easy to follow and provide the right amount of information for students?

The responses were coded into themes and there were no particular differences in responses from TAs administering PBA and EOY assessments. The themes for the first question are presented in Table 7. The first theme pertained to the amount of information provided in the TA manual. TAs in 33 of 88 interviews (38%) described the manual as "helpful," and "…provided the information needed." However, TAs in 31 interviews (35%) indicated the TA manual contained too much extra information that did not directly guide the test administration task; for example, some indicated the manual was "far too dense to retain necessary information." As a result, TAs in 15 interviews (17%) reported that their districts created summary support documents, some with screen capture images, that helped TAs ensure that they covered the

key tasks during test administration. The organization of information in the manual was described positively in 22 interviews (25%) in that the information was logically presented, directions were easy to follow, and it was easy to access. In nine interviews, TAs felt the information was not presented sequentially or intuitive to find information they needed. Other comments received during the interviews indicated the manuals were not received in a timely manner (i.e., the day before testing began) and that managing several updates to the manual after testing had begun was difficult. Additional suggestions obtained from TAs during the debriefing interview for improving the TA Manual are presented in Appendix K.

Table 7. Usefulness of TA Manual: Themes Identified from Interviews with TAs

Theme	Sources[a]	References[b]	Sample Responses
Information adequate	33	36	• Liked the "fill in the blank" statements for the number of minutes and grade level, etc. • TAs found it self-explanatory and they did not have too many questions • Yes, the manual was especially helpful in shepherding brand new teachers.
Information not adequate	31	37	• It is fairly lengthy and could be condensed. • A lot of unnecessary information; kind of wordy. • Manuals could be "scaled down."
Organization adequate	22	26	• Seemed well-organized and thorough. • Really easy to access; well organized. • Helpful to have a glossary to describe distinctions between terminology
Organization weak	9	10	• Not very intuitive. • TC and TA manuals were not organized in similar ways. • Online manual needs Table of Contents links
Supplemental materials created by districts	15	16	• Would like to see simple steps for teacher, especially with troubleshooting. • The most helpful document was a step-by-step guide for conducting the assessment that was prepared by the district. • The TC provided them with screen shots of steps, which the TAs said were helpful.

[a]Indicates number of interviews providing information about that topic. [b]Indicates number of notes and/or comments made about that topic.

Table 8 summarizes information received during the debriefing interviews with TAs regarding the usefulness of the test administration scripts included in the TA Manuals. In nearly three-fourths (65 of 88) of the interviews, the TAs and TCs described the scripts as effective, with comments such as “comparable to scripts on other assessments I’ve administered” and “the scripts provided the necessary information to students.” Staff in only 15 interviews (17%) stated that the scripts were “redundant” and “streamlining needed,” particularly for students completing multiple sessions and tests. Additional clarifications on navigating between sessions and ending sessions and exiting the test were requested by TAs in seven interviews (8%); this was a prevalent theme in the field test study. Consequently, given that this topic was only

mentioned in 8% of the interviews in Year 1, this suggests that improvements have been made, although additional fine-tuning may still be warranted. Comments obtained in seven interviews (8%) indicated that TAs/TCs were unsure why they needed to test the sound through the headphones for test sessions that did not include audio.

Also, there were comments from four interviews regarding accommodations. TAs suggested that there should be a separate accommodation script with additional cues for navigation and clearer guidance for TAs on procedures such as read aloud. Also, there were two TAs who commented that there were no instructions in the script for proceeding to the Student Survey and also that the text-to-speech accommodation does not work with the Student Survey. Additional suggestions obtained from TAs during the debriefing interview for improving the script are presented in Appendix K.

Table 8. Usefulness of Scripts: Themes Identified from Interviews with TAs

Theme	Sources[a]	References[b]	Sample Responses
Script effective	65	68	• It is lengthy but overall it is important to restate and reinforce the directions. • Sequential, made sense and to the point. • The scripts had the right amount of information. • The boxes and bold print were easy to follow.
Script needs improvement	15	17	• Maybe a little lengthy. It is hard to listen to all the commands at the same time. • Repetitive • The script intro for 3rd graders is too long for this age; the kids get antsy before the test even begins.
Navigating between sessions and ending sessions and exiting the test	7	10	• Also, as written, the script does not do enough to keep students from submitting their test too early (before all sessions completed). • The end of sessions was not clear. Some of our teachers mistakenly administered two sessions in one day. • There is no clear way to end a group that is already all finished as happened in this session. May be easier to have the people log out at the same time so you only have to read the instructions once.
Testing sound and headphones	7	8	• Why are they required to check sound on sessions that don't have sound? This is confusing! • Feels a little odd to have to test the headphones if students aren't using them.

[a]Indicates number of interviews providing information about that topic. [b]Indicates number of notes and/or comments made about that topic.

When compared to the findings from the School Visits Study from the field test, the changes made in the organization and content of the scripts since the field test appear to have been beneficial. For the field test, in nearly half of the interviews, the TAs provided unfavorable comments about the script; for example, the TAs commonly indicated that the script was difficult to follow and repetitive, and that the terminology was unclear (e.g., sessions vs.

section); whereas positive comments about the scripts were provided in nearly three-fourths (65 of 88) of the interviews for the Year 1 study.

Collectively, these findings suggest that the actions implemented by PARCC since the field test to improve the TA Manual such as, shortening the TA Manual by reducing redundancies, adding grade band scripts, adding checklists of tasks, adding additional graphics and icons to increase user understanding, clarifying terminology, etc. (see *PARCC Field Test: Lessons Learned*, PARCC, 2015) were beneficial and favorably received by the TAs. To the extent that the actions taken by PARCC since the field test have improved the clarity of instructions and the ease of implementing instructions, which the findings presented here suggest that they have, then adherence to *Standard 4.15* has been further strengthened since the field test. Possible areas for further refinement include providing additional clarification on navigating between sessions and exiting the test (CBT), further streamlining the scripts to reduce redundancies for students completing multiple sessions and tests, and providing the finalized TA Manuals earlier (*it should be noted that as a result of this advice PARCC provided manuals for the 2015 Fall Block administration 60 days in advance*).

Findings for Research Question 2: To what degree do the TAs follow the protocols and instructions?

The claim in the theory of action most directly related to this research question is, "TAs are prepared to administer the assessments as intended" (claim 1). For this claim to be true at least two assumptions must be met: (a) administrators must be trained on how to administer the assessments, and (b) that training must be effective. To investigate the veracity of these assumptions, the TA Survey (CBT and PBT versions) asked the TAs a series of questions about the effectiveness of the training and training materials they received prior to administering the assessments. The trainings and training materials for administering CBTs and PBTs differed somewhat. Consequently, there were some differences in survey questions on the CBT TA Survey and the PBT TA Survey regarding training, and, thus, findings are presented separately.

Findings on the usefulness of the training modules for TAs administering CBTs are presented in Figure 5[7]. Overall, results were quite similar across all training modules. For those who indicated that the training was applicable to them, approximately two-thirds agreed that the modules effectively prepared them to administer the CBT PARCC assessments. It should be noted that a sizeable percentage of respondents to the CBT TA Survey (35%-40%) indicated that the following trainings were "not applicable" to them: Personal Needs Profile (PNP) Training, Proctor Caching & TestNav Configuration Training, Student Registration Import Training, and Technology "Readiness" for Schools and Districts Training.

[7]Due to differences in training modules and due to differences in the format and wording of the items on the surveys, comparisons with field test survey results are not presented.

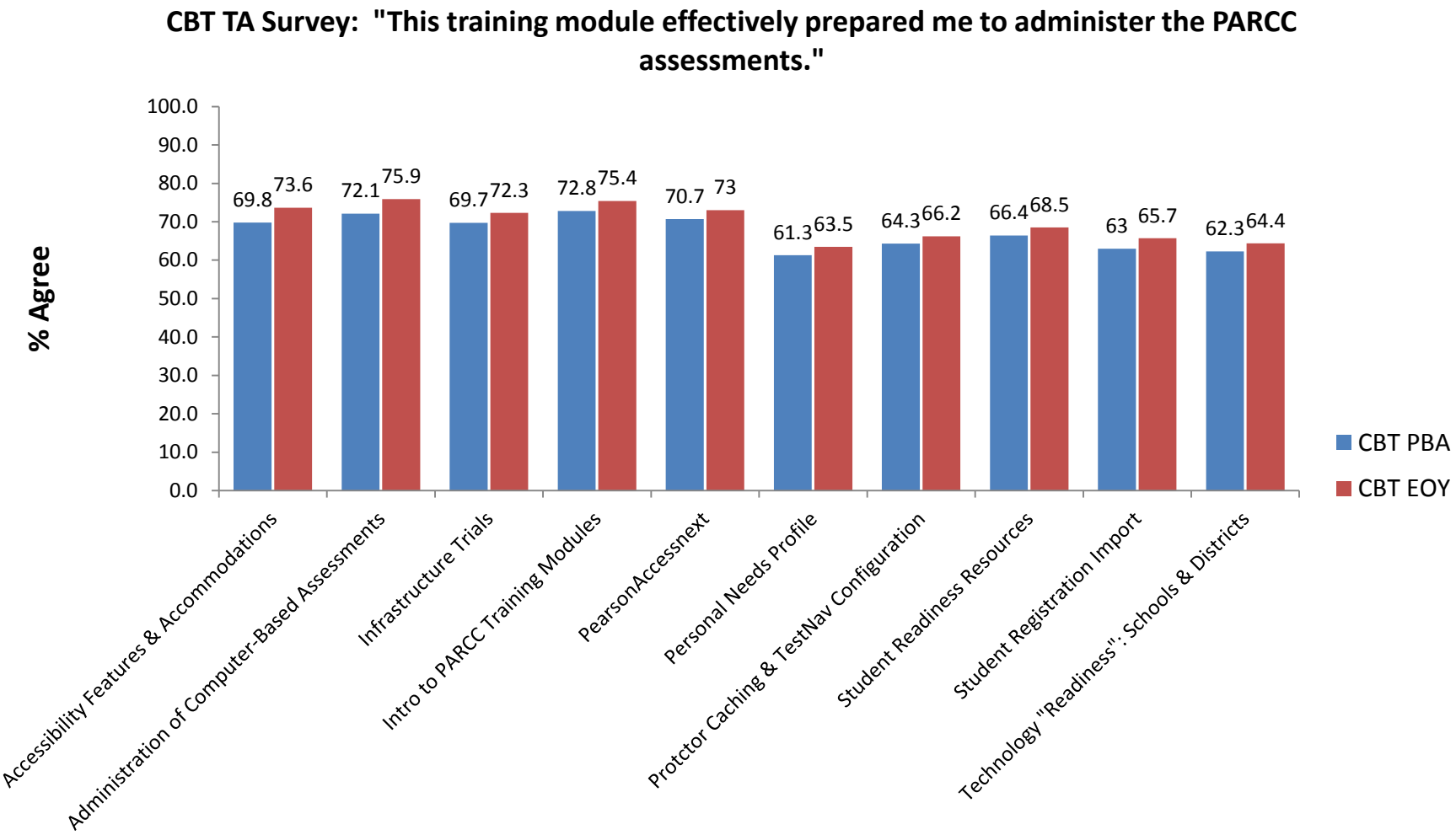

Figure 5. Percentage of TAs agreeing that training modules prepared them to administer CBT PARCC assessments.

Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results. Across this set of items, n-counts ranged from n = 6,430 to 9,098 for CBT PBA and from n = 6,943 to 9,664 for CBT EOY.

The TAs administering CBTs were also explicitly asked to indicate the extent to which they agreed that the PARCC online trainings prepared them to resolve basic problems related to technology (e.g., students logging in, exiting the test, etc.). This same question was also asked on the field test TA Survey. Figure 6 below shows that just over half of the TAs (56%) administering the CBTs during Year 1 agreed that the PARCC online trainings prepared them to resolve basic problems related to technology; this is a modest increase from the field test in which 49% of TAs indicated that the PARCC online trainings prepared them to resolve basic problems related to technology.

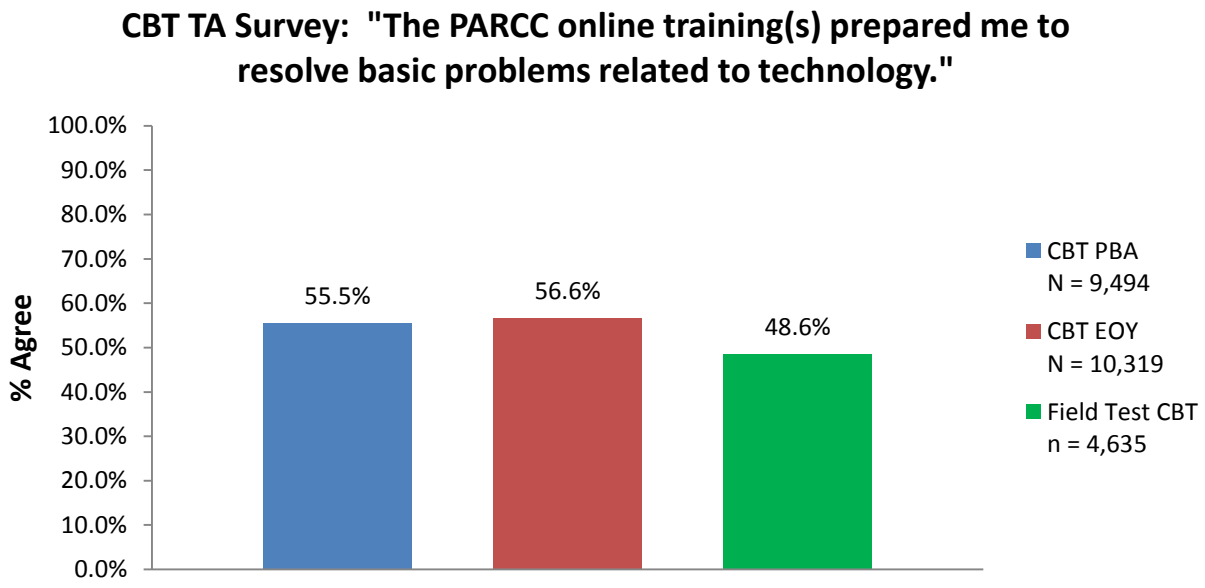

Figure 6. Percentage of TAs agreeing that PARCC online trainings effectively prepared them to resolve basic problems related to technology.

Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results.

Findings on the usefulness of the training modules for TAs administering PBTs are presented in Figure 7. For those that indicated the training was applicable to them, three-fourths or more (75% - 83%) agreed that the Introduction to PARCC Training Modules, the Accessibility Features & Accommodations Training Module, and the Administration of Paper-based Assessments Module effectively prepared them to administer the PBT PARCC assessments.

Approximately two-thirds agreed that the trainings on PearsonAccess^{next}, Student Registration Import, and Student Readiness Resources helped prepare them to administer the PBT PARCC assessments (which were similar to findings from the CBT TA Survey). It should be noted that a sizeable percentage of respondents to the PBT TA Survey (41% - 53%) indicated that these trainings--i.e., PearsonAccess^{next} Training, Student Registration Import Training, and Student Readiness Resources for PARCC Training--were "not applicable" to them. Of these only

PearsonAccess^{next} Training and Student Registration Import Training are not applicable for TAs administering PBTs. The student readiness resources for PARCC Training is appropriate for TAs administering PBTs, which suggests that there might be a disconnect in teachers' awareness of which trainings are relevant.

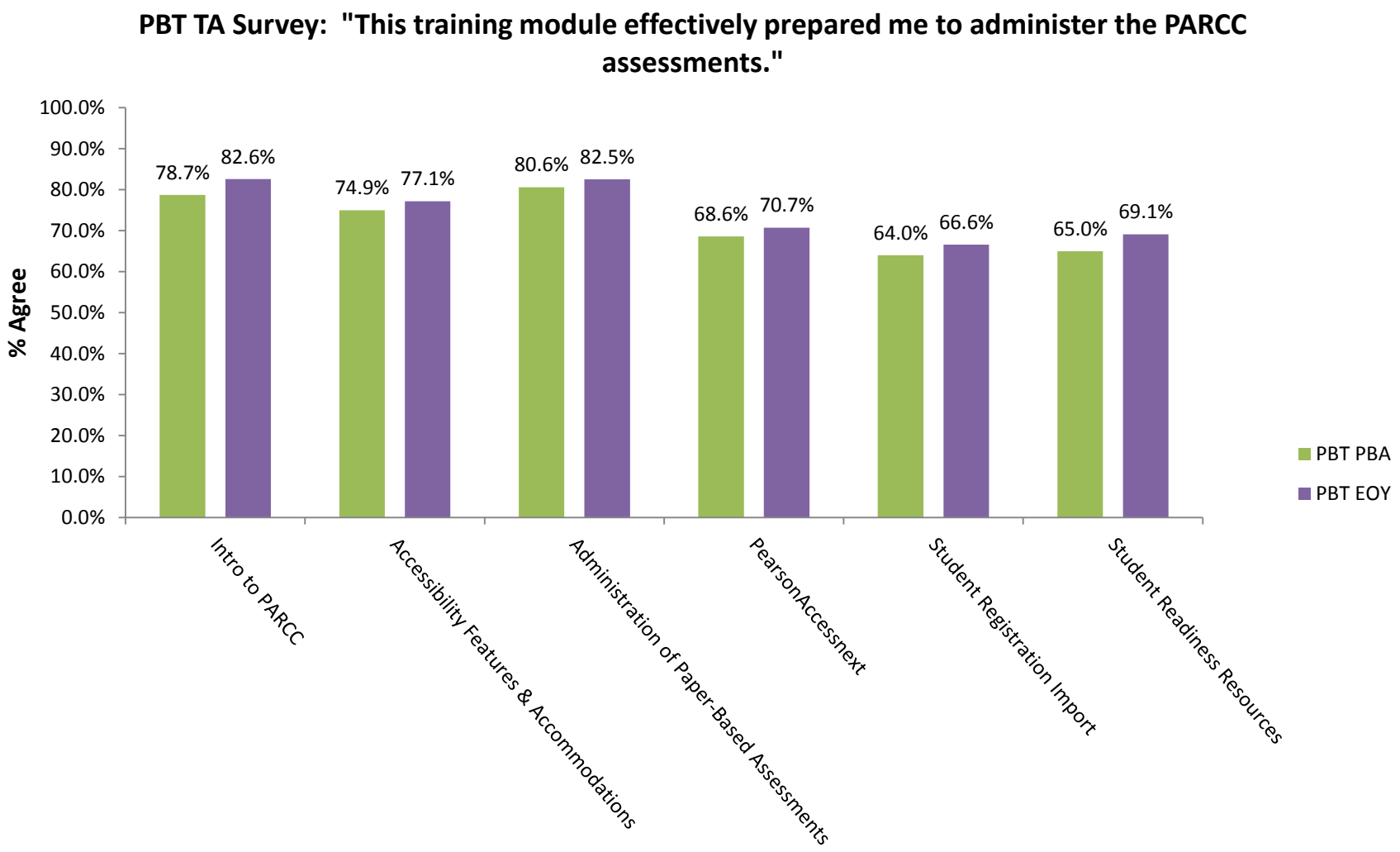

Figure 7. Percentage of TAs agreeing that training modules prepared them to administer PBT PARCC assessments.

Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results; across this set of items, n-counts ranged from n = 1,151 to 1,885 for PBT PBA and from n = 755 to 1,228 for PBT EOY.

All TAs, regardless of whether they administered CBTs or PBTs, were also asked to rate the extent to which they agreed that the training they received from their state department of education (DOE), from their district, and/or from their school effectively prepared them to administer PARCC assessments. Those results are presented in Figure 8. Of those who indicated the training was applicable to them, the vast majority (73% - 88%) agreed that the district training and school training effectively prepared them for administering the assessments with a slightly higher percentage agreeing that the school training was effective (82% - 88%). Of the TAs who indicated that the state DOE training was applicable, approximately half (43% - 55%) agreed that it effectively prepared them to administer the PARCC assessments. It should be noted that a sizable percentage of TAs (35% and 40% for CBT and PBT, respectively) indicated that the state DOE training was "not applicable" to them.

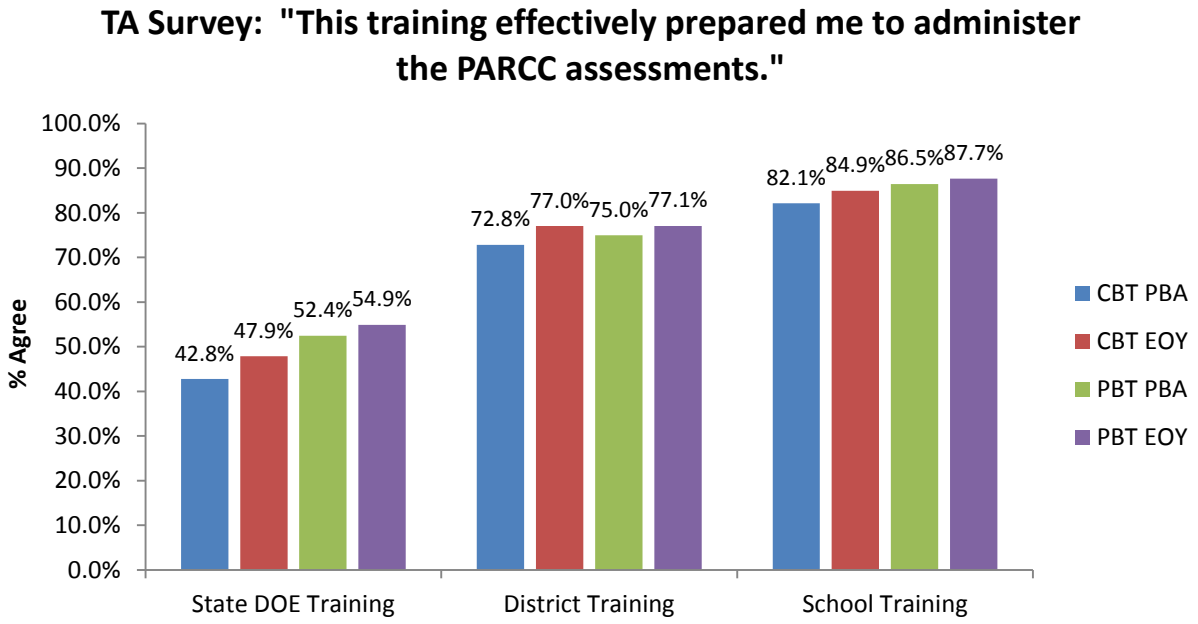

Figure 8. Percentage of TAs agreeing that state, district or school training effectively prepared them.
Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results; across this set of items, n-counts ranged from n = 6,944 to 10,151 for CBT PBA, from n = 7,391 to 10,813 for CBT EOY, from n = 1,404 to 2,219 for PBT PBA, and from n = 901 to 1,410 for PBT EOY.

The ways in which TAs were able to access and interact with PARCC content prior to administration may also affect their preparedness to administer assessments as intended. One of the findings that stemmed from the Quality of Test Administration Study from the field test was that TAs wanted an opportunity to review PARCC content (e.g. sample items, practice test) prior to administering the assessments. They felt that this would make them more comfortable and knowledgeable about the test administration protocol. Consequently, for the operational assessment TAs were provided additional opportunities to review PARCC content prior to administration. The results presented in Figure 9 indicate that roughly two-thirds of TAs for

both test formats (CBT and PBT) and for both test types (PBA and EOY) reviewed sample items prior to administering the PARCC assessments. Similarly, two-thirds of TAs administering the CBT reported that they reviewed PARCC tutorials prior to administration; although only about one-third of TAs administering the PBT reported that they reviewed PARCC tutorials prior to administration. A similar pattern emerged for completing a practice test, although the difference was not quite as pronounced. Very few TAs (8% - 17%) reported that they "did not practice" prior to test administration.

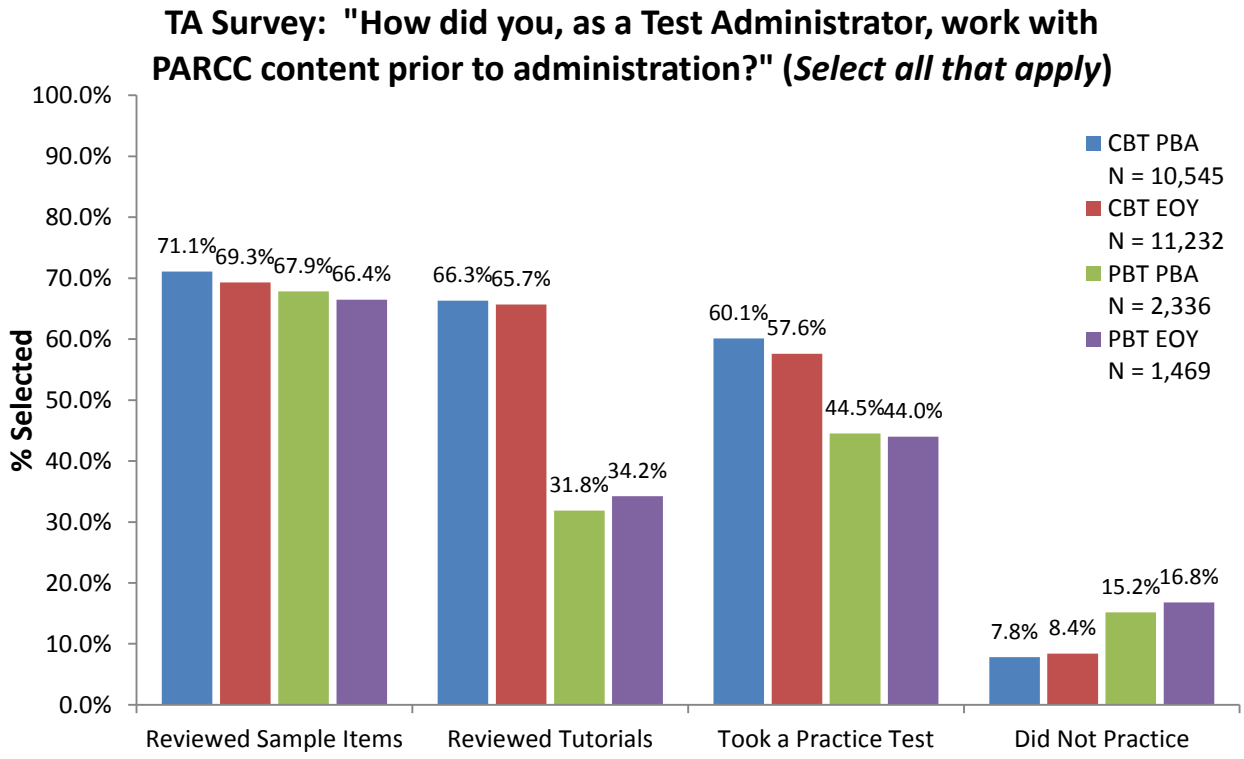

Figure 9. Percentage of TAs indicating how they worked with PARCC content prior to administration.
Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

Finally, TAs administering the CBT were asked to indicate the extent to which they agreed with the statement, "Completion of the PARCC tutorial helped me to better understand the tools and functionalities of the TestNav system." Of those for whom this question was applicable, more than 80% agreed or strongly agreed with this statement (for both PBA and EOY)—see Figure 10. Similarly, TAs administering the PBT were asked to rate the extent to which they agreed with the statement, "Completion of the PARCC paper-based student tutorials helped better prepare me for administering the assessment." Of those for whom this question was applicable, nearly three-fourths agreed or strongly agreed with this statement (for both PBA and EOY)—see Figure 11.

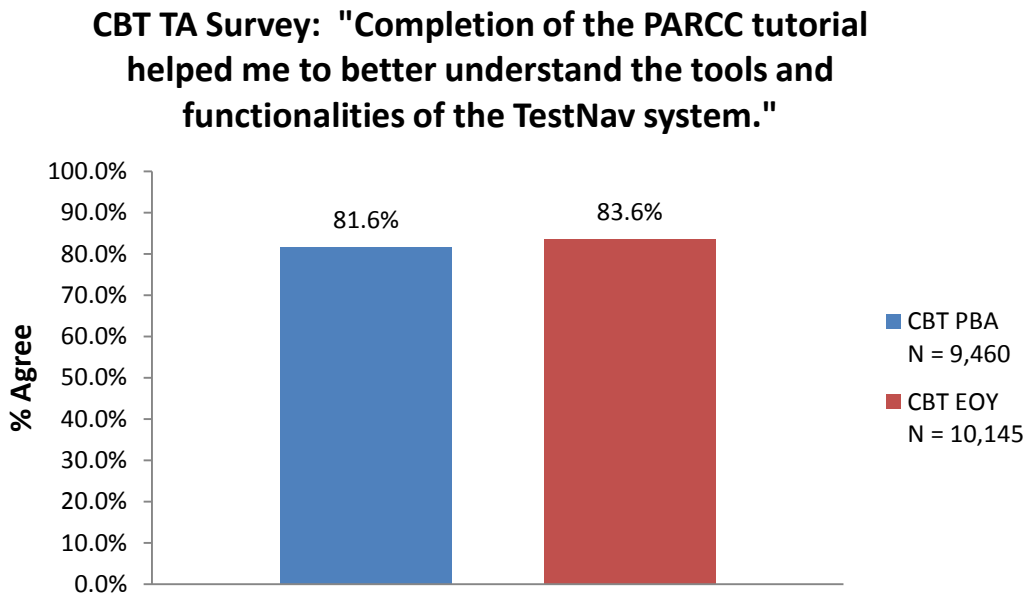

Figure 10. Percentage of TAs agreeing that the PARCC tutorial helped them understand the TestNav system.

Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results.

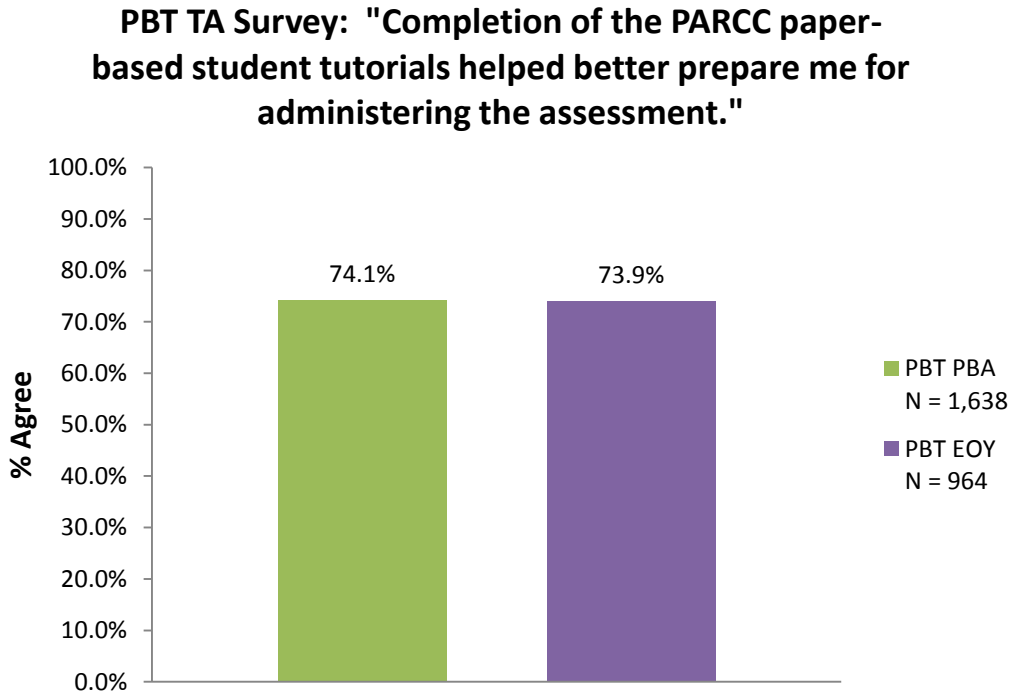

Figure 11. Percentage of TAs agreeing that completion of PARCC paper-based student tutorials helped better prepare them to administer the assessment.

Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results.

The findings from the School Visits Study provide additional evidence regarding the extent to which the TAs followed the protocols and instructions to administer the assessments as intended. The observations of PARCC testing in schools are essential to understanding how well TAs followed the test administration protocols and instructions. Observer ratings (excluding Did Not Meet or Partially Met) from the school visits indicated that approximately 94% of the test administration tasks (39 tasks in total) were completed by TAs as intended across the 109 observations. The results from the field test study using the same metric indicated that 88% of the test administration tasks were completed as intended by TAs.

Tables 9 and 10 summarize observer ratings for the tasks TAs conduct before students arrive and during testing. When reviewing the data in the tables, it is important to remember that "Not Observed" was used when it was evident the task occurred but was not directly observed (e.g., the testing room was set up well in advance of the observer's arrival) and "Not Applicable" was used when the task was not necessary, such as covering content related posters when there were none in the room.

Table 9 includes tasks completed prior to student arrival in the testing room. There was one task (Draw timing box on board) that was either rated "Did Not Meet" or as "Partially Met" in 48 sessions (44%) across both CBT and PBT administrations. It is important to note that in only four of those sessions did observers note that no board was available to use (such as in a lunchroom). Observers also noted for the "Partially Met" rating that timing boxes were either not updated or the session type or overall time was not listed. These findings are comparable to the findings reported in the field test study where observers noted that the timing boxes were either not used or were partially used in approximately 53% of the test sessions. Also, for this task in PBT administrations the "Not Applicable" rating was used when students were either blind or the accommodation was Read Aloud (17%). A second task relevant to PBT only (Post example STOP and GO ON signs) was rated as either "Did Not Meet" or as "Partially Met" in seven of 18 sessions (39%). Observers in three of the sessions noted that TAs discussed the STOP and GO ON signs and students indicated that they knew what the signs looked like.

Table 9. Summary of Pre-Assessment Observation Checklist Items

	Ratings									
	CBT					PBT				
	Met	Partially Met	Did Not Meet	Not Observed	NA	Met	Partially Met	Did Not Meet	Not Observed	NA
	%	%	%	%	%	%	%	%	%	%
Prepare testing room.	69.2	13.2	0.0	14.3	3.3	100.0	0.0	0.0	0.0	0.0
Prepare Test Administrator computer.	75.8	17.6	0.0	5.5	1.1					
Prepare student computers.	54.9	6.6	2.2	36.3	0.0					
Ensure prohibited materials not visible.	90.1	0.0	2.2	1.1	6.6	88.9	5.6	0.0	0.0	5.6
Confirm student roster matches Student Authorization Tickets.	67.0	3.3	0.0	29.7	0.0					
Draw timing box on board.	50.6	17.6	26.4	5.5	0.0	38.9	22.2	22.2	0.0	16.7
Post example STOP and GO ON signs.						55.6	11.1	27.8	0.0	5.6
Allow authorized visitors only.	91.2	1.1	0.0	0.0	7.7	94.4	0.0	0.0	0.0	5.6

Note. NA= Not applicable.
Number of observed CBT sessions is n = 91; number of observed PBT sessions is n = 18.
Shaded rows indicate items not applicable to that administration type.

Table 10 includes tasks completed during and immediately following testing. Nearly all applicable tasks were rated as "Met" by observers. There were only a few tasks that received a "Did Not Meet" rating. First, for three subtasks under the heading of "Distribute the following materials when indicated by the script" observers rated "Did Not Meet" because those materials were handed out before the script directed the TAs to do so. Second, the task "Provide Seal Code and write Start/Stop times in timing box when script advises" received ratings of "Did Not Meet" in four PBT sessions because the TAs failed to update the timing box. Third, for the task, "Monitors student progress using administration computer," observers used the "Did Not Meet" rating for the CBT administrations because the administration computer was set up outside of the testing room and was monitored by school or district staff (TC or technical support staff) other than the TA. The subtasks under the heading of "Handle technology problems as trained" was rated "Did not Meet and "Partially Met" in five sessions where TAs did not overtly provide additional time to students impacted by the delays. It should be noted that no observer indicated that any of those students were unable to finish the test because of the delay. Finally, for the task, "Answer student questions following script guidance," the "Did Not Meet" rating was used by observers in four sessions. TAs in three sessions at different schools helped the students use the highlight text tool when the students could not figure out how to answer that type of test question. In those cases, observers noted that the TA provided assistance with the test question. At the fourth session, the TA refused to answer any student questions during testing. When asked about this during the debriefing interview, the TA indicated that the training she received made it clear that she was not supposed to talk to students and they were not supposed to talk to her during testing.

Also, it is important to note that for this study all but one TA followed the script verbatim or very closely. This is in sharp contrast to the observation findings for the field test study where observers rated this task as "Did Not Meet" or "Partially Met" in 42 of 77 observations (43%). For that study, observer notes indicated that TAs either did not follow the script verbatim or took wide liberties when reading the script. When TAs were asked about the script in the debriefing interviews, they typically stated that the script was too lengthy and difficult to follow when administering the test, which prompted them to make edits to the script during the field test administration.

Table 10. Summary of Assessment Observation Checklist Items

	Ratings									
	CBT					PBT				
	Met	Partially Met	Did Not Meet	Not Observed	NA	Met	Partially Met	Did Not Meet	Not Observed	NA
	%	%	%	%	%	%	%	%	%	%
Ensure students leave belongings in central area.	90.1	2.2	0.0	5.5	2.2	88.9	0.0	0.0	11.1	0.0
Distribute the following materials when indicated by the script:										
Student Authorization Ticket.	92.3	2.2	0.0	5.5	0.0					
Test Booklet.						83.3	0.0	5.6	11.1	0.0
Scratch paper and pencil. Print name in upper right-hand corner	90.1	4.4	1.1	4.4	0.0	77.8	5.6	5.6	5.6	5.6
Hand-held calculators	21.9	2.2	0.0	2.2	73.6	11.1	0.0	0.0	0.0	88.9
Math reference sheet, ruler, compass, or protractor	8.8	1.1	1.1	2.2	86.8	27.8	0.0	11.1	0.0	61.1
Headphones	59.3	3.3	0.0	5.5	31.9					
Ensure students log in and have access to the test.	94.5	1.1	0.0	4.4	0.0					
Verify student roster after being seated.						83.3	5.6	0.0	11.1	0.0
Replace torn or damaged test booklet						0.0	0.0	0.0	0.0	100.0
Read script verbatim.	86.8	8.8	1.1	3.3	0.0	72.2	22.2	0.0	5.6	0.0
Provide seal code and write Start/Stop times in timing box when script advises.[a]	70.3	25.3	1.1	3.3	0.0	38.9	22.2	22.2	5.6	11.1
Handle technology problems as trained:										
Individual: adjust remaining time, if not timely move/dismiss, resume later	26.4	3.3	3.3	1.1	65.9					
Multiple students: pause testing, update timing box with new times	6.6	1.1	1.1	1.1	90.1					
Monitor student progress using administration computer.	80.2	0.0	6.6	9.9	3.3					
Monitor students by circulating around the room.	100.0	0.0	0.0	0.0	0.0	77.8	0.0	0.0	0.0	22.3
TA monitors test administration.	83.5	3.3	11.0	0.0	2.2					

(continued)

Table 10. Summary of Assessment Observation Checklist Items (continued)

	Ratings									
	CBT					PBT				
	Met	Partially Met	Did Not Meet	Not Observed	NA	Met	Partially Met	Did Not Meet	Not Observed	NA
	%	%	%	%	%	%	%	%	%	%
Handle contaminated (e.g., cut, illness) test materials appropriately						0.0	0.0	0.0	0.0	100.0
Keep track of time accurately.	80.2	7.7	3.3	2.2	6.6	72.2	0.0	5.6	5.6	16.7
Answer student questions following script guidance.	74.7	3.3	1.1	4.4	16.5	38.9	0.0	11.1	11.1	38.9
Handle student alert to unanswerable or misprinted test item.	5.5	0.0	0.0	1.1	93.4	0.0	0.0	0.0	0.0	100.0
Provide a verbal prompt when 10 minutes remain.	62.7	0.0	5.5	5.5	26.3	44.4	0.0	5.6	11.1	38.9
Provide group a 3 minute break if necessary.	24.1	3.3	2.2	1.1	69.2	44.4	0.0	0.0	0.0	55.6
Handle testing irregularities.	46.2	0.0	0.0	1.1	52.7	0.0	0.0	0.0	0.0	100.0
Handle student misconduct appropriately.	16.5	3.3	0.0	1.1	79.1	11.1	0.0	0.0	0.0	88.9
Handle students finishing early appropriately.	91.2	3.3	0.0	1.1	4.4	72.3	5.6	5.6	0.0	16.7
Students receive accommodation in regular session.	12.1	2.2	0.0	1.1	84.6	11.1	0.0	0.0	0.0	88.9
Ensure students receiving the same accommodations are grouped together.	15.4	0.0	0.0	2.2	82.4	50.0	0.0	0.0	11.1	38.9
Post-Assessment Items:										
Students log off of the session.	93.4	2.2	0.0	3.3	1.1					
Collect Student Authorization Ticket (CBT) or test booklet (PBT) and any test materials.	91.2	2.2	0.0	4.4	2.2	88.9	0.0	0.0	11.1	0.0
Return testing materials to TC	49.5	0.0	0.0	30.7	19.8	44.4	0.0	0.0	33.3	22.2

Note. NA= Not applicable.
Number of observed CBT sessions is n = 91; number of observed PBT sessions is n = 18.
Shaded rows indicate items not applicable to that administration type.
[a]Seal code applies to CBT only.

In addition to the ratings from the observation checklist presented in Tables 9 and 10, findings from the debriefing interviews provide additional contextual information to help explain the degree to which TAs followed protocols and instructions. The debriefing interviews reveal that in about half of the interviews TAs felt they could find the information they needed in the TA manual to administer the operational assessment.

In summary, training is an important component for ensuring that TAs follow standardized procedures for test administration (AERA, APA, NCME, 2014, p. 114), and the findings from the TA Surveys indicate that the majority of TAs administering CBTs and PBTs reported that the PARCC online trainings, particularly the Introduction to PARCC module, effectively prepared them to administer the PARCC assessments. Even higher percentages of TAs reported that the training they received from their school effectively prepared them to administer PARCC assessments. In addition, most TAs reported that they gained additional familiarity with PARCC content via sample items, practice tests, and the PARCC tutorial on TestNav (CBT only) prior to test administration. Only about a third of TAs administering PBTs indicated that they reviewed tutorials prior to test administration, but of those that completed the PARCC paper-based student tutorial, most agreed that it helped better prepare them for administering the assessment. These findings help support that the TAs were effectively trained to administer the PARCC assessments as intended. Although the TA Survey findings do indicate that training on handling technology-related problems could benefit from additional enhancements. Findings from the School Visits Study indicate that TAs followed standardized procedures during test administration with very few exceptions, which also speaks to the effectiveness of the training and training materials. This is in contrast to findings from the field test study where, in nearly half of the sessions observed, TAs did not follow the script in the TA Manual verbatim. The improvements observed in TAs following the script in Year 1 are likely partially attributed to the actions PARCC took since the field test to improve the clarity of the TA Manual and to improve the effectiveness of the TA training, including the addition of more opportunity to interact with PARCC content prior to test administration. Consequently, greater adherence to the standardized test administration procedures, through improved training, additional exposure to PARCC content prior to test administration, and improved clarity of the TA manual, appears to have helped strengthen adherence to *Standard 6.1* since the field test.

Findings for Research Question 2 Specific to Accessibility Features and Accommodations

The TA Surveys also specifically asked TAs about the effectiveness of the training materials related to administering Accessibility Features and Accommodations (AFAs). Both the CBT and the PBT TA Surveys included the same set of questions on AFAs. To provide some context for interpreting the findings on the usefulness of the AFA training materials, Table 11 reports the percentages of TAs who indicated that they administered each type of AFA. Table 11 shows that

"Extended Time" was the most frequently administered AFA with approximately a third of TAs indicating that they administered this AFA. The next most frequently administered AFA was a Human Reader for Mathematics on the PBTs (both PBA and EOY) with approximately a fourth of the TAs administering PBTs indicating that they implemented this AFA. The Human Signer and the External Word Prediction Device were the most infrequently administered AFAs with less than 1% of all TAs indicating that they administered these AFAs.

Table 11. Percentage of TAs Indicating They Administered Particular AFAs

Accessibility & Accommodation Feature	% CBT PBA (N = 10,545)	% CBT EOY (N = 11,232)	% PBT PBA (N = 2,336)	% PBT EOY (N = 1,469)
Human reader for mathematics	7.3	8.1	27.0	24.9
Human reader for ELA	4.3	4.9	15.2	15.6
Human scribe	4.7	4.3	10.1	10.7
Human signer	0.3	0.2	0.5	0.3
Directions read aloud in native language	4.6	4.0	5.7	5.5
External speech-to-text device	6.0	6.5	1.0	0.8
Extended time	31.2	32.6	38.2	36.6
External word prediction device	0.7	0.7	0.4	0.7
Calculator on non-calculator section	12.6	16.2	15.2	16.5
Other external device	1.6	1.3	3.0	2.50

Note. Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

The TA Surveys also asked TAs to indicate if they had read the approved PARCC Accessibility Features and Accommodations Manual prior to test administration. The results show that in Year 1 over 80% of the TAs indicated that they read the manual, whereas only about two-thirds of TAs indicated that they read the manual prior to administering the field test (see Figure 12), a notable increase.

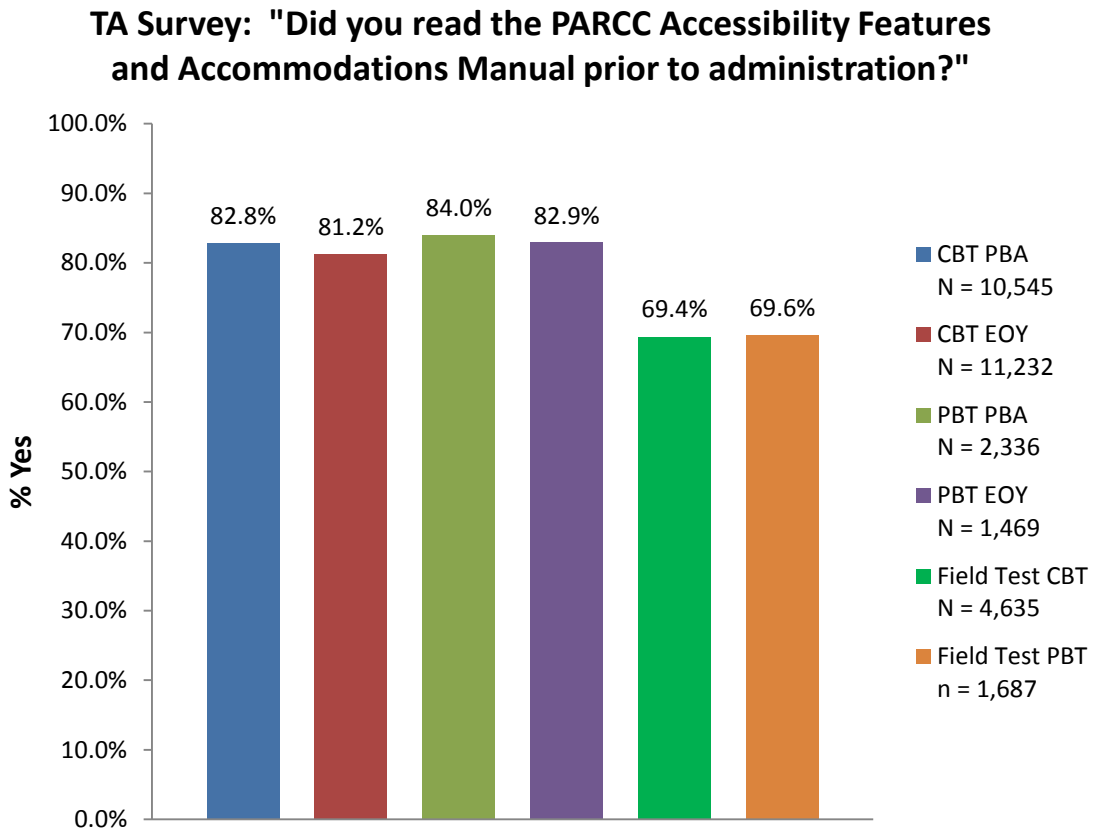

Figure 12. Percentage of TAs indicating they read the PARCC Accommodations Manual.
Percentages based on valid (non-missing) responses.

The TAs were also asked to rate the extent to which they agreed that a particular AFA training component effectively informed them of how to administer AFAs on the PARCC assessments. Those results are presented in Figure 13. Of those indicating the AFA training component was applicable, the majority of TAs across test formats (CBT and PBT) and across test types (PBA and EOY) agreed that the training item/component effectively informed them of how to administer AFAs on the PARCC assessments. School training and the AFA Manual received the highest percentage of agreement ratings (80% - 88%) and state DOE training received the lowest percentage of agreement ratings (55% - 64%).

Next, the TAs were asked to indicate the extent to which they agreed that a particular appendix from the TA Manual or a particular guideline effectively informed them of how to administer AFAs. Those findings are presented in Figure 14. Of those for whom the appendix/guideline was applicable, more than three-fourths agreed that it effectively informed them of how to administer AFAs. This result was found for all appendices/guidelines and across both test formats (CBT and PBT) and across both test types (PBA and EOY).

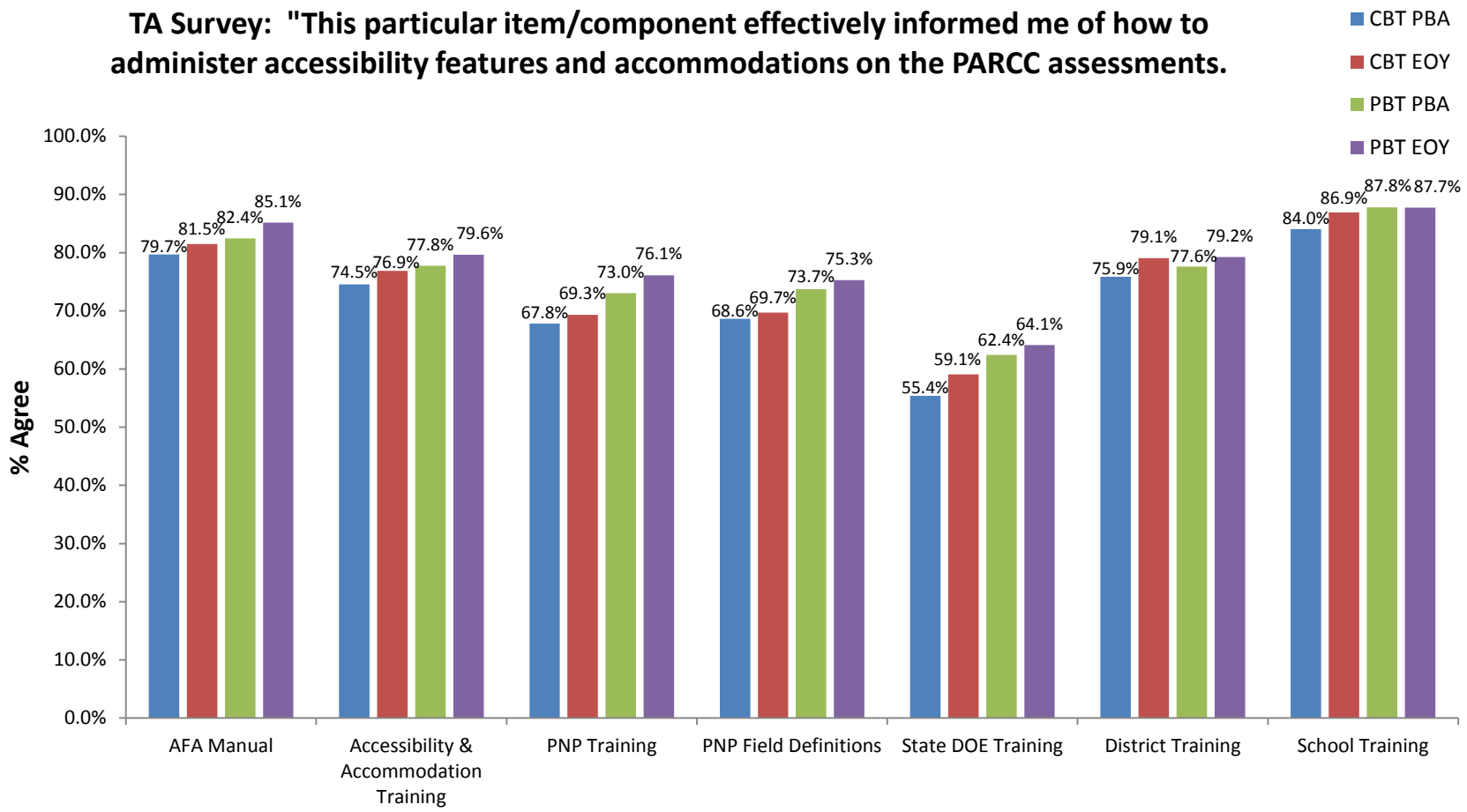

Figure 13. Percentage of TAs agreeing that a specific manual or training informed them of how to administer accessibility features and accommodations.

Percentages based on valid responses. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results. For this set of items, n counts for "applicable" respondents ranged from n = 6,673 to 9,651 for CBT PBA; from n = 7,253 to 10,301 for CBT EOY; from n = 1,360 to 2,077 for PBT PBA, and from n = 885 to 1,336 for PBT EOY.

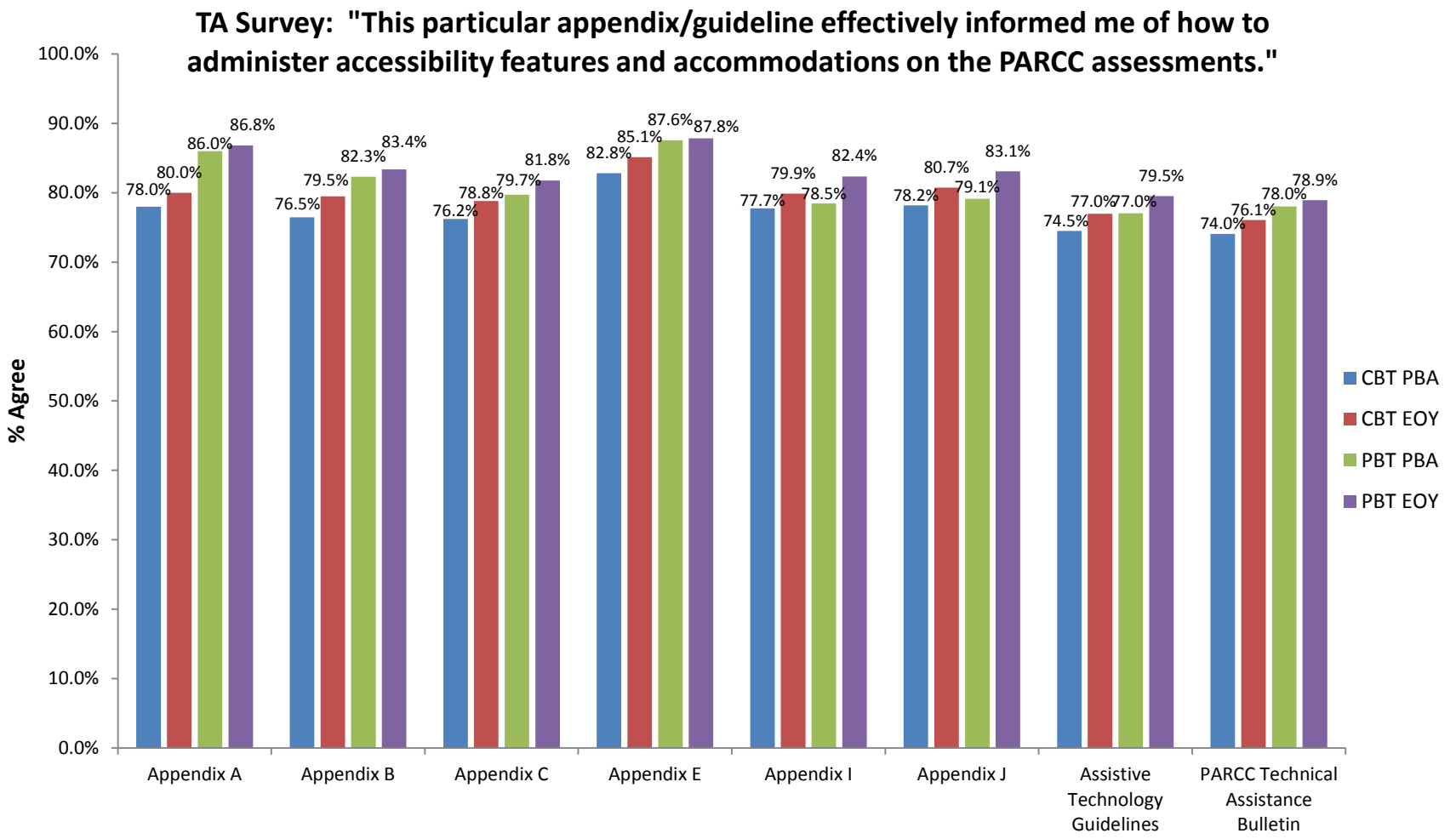

Figure 14. Percentage of TAs agreeing that a specific appendix or guideline informed them of how to administer accessibility features and accommodations.
Percentages based on valid responses. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. Respondents indicating "Not Applicable" are excluded from these results. Across this set of items, n counts for "applicable" respondents (including missing responses) ranged from n = 3,552 to 5,523 for CBT PBA; from n = 3,843 to 6,020 for CBT EOY; from n = 789 to 1,597 for PBT PBA, and from n = 522 to 972 for PBT EOY.
Appendix A = Accessibility Features and Accommodations for Students taking the Paper-Based PARCC Assessments; Appendix B = Test Administration Protocol for the Human Reader Accommodations for ELA/L and the Human Reader Accessibility Feature for Math; Appendix C =Protocol for the Use of the Scribe and for Transcribing Student Responses; Appendix E = Guidance for Selecting and Administering the Extended Time Accommodation; Appendix I = PARCC ELA Audio Guidelines; Appendix J = PARCC Math Audio Guidelines.

Three additional TA Survey questions pertaining to AFA trainings and materials were also asked of TAs. These final three AFA questions were specific to the Personal Needs Profile (PNP). First, TAs were asked whether the process for identifying AFAs in advance via the PNP were clear and easy to follow. Second, as a follow up, TAs were asked whether the AFAs pre-identified in the PNP were made available to students during a practice session with sample items, tutorials, or a practice test. Finally, TAs were asked to indicate whether changes were made to a student's PNP or to the availability of accommodations or accessibility features during test administration. For those for whom the PNP was applicable, approximately two-thirds of TAs across test formats (CBT and PBT) and across test types (PBA and EOY) agreed that the process for identifying AFAs via the PNP was clear and easy to follow (see Figure 15). Only slightly more than a third, however, indicated that the AFAs pre-identified via the PNP were made available to students during a practice session; the majority of TAs did not know whether the AFAs were made available to students during a practice session (see Figure 16). Finally, very few TAs (5% - 7%) indicated that changes were made to a student's PNP or to the availability of AFAs during test administration; many were unaware as to whether such changes were made (see Figure 16).

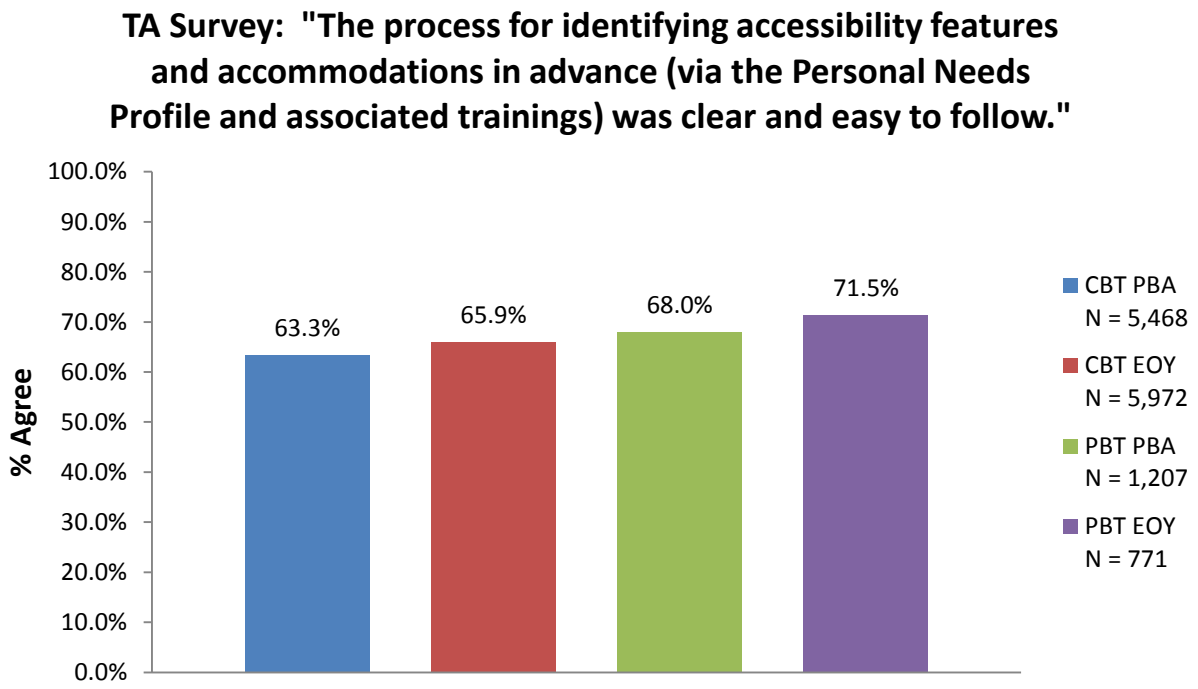

Figure 15. Percentage of TAs agreeing that the process for identifying accessibility features and accommodations was easy to follow.

Percentages based on valid responses. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses. For the values presented here, "Not Applicable" responses were excluded.

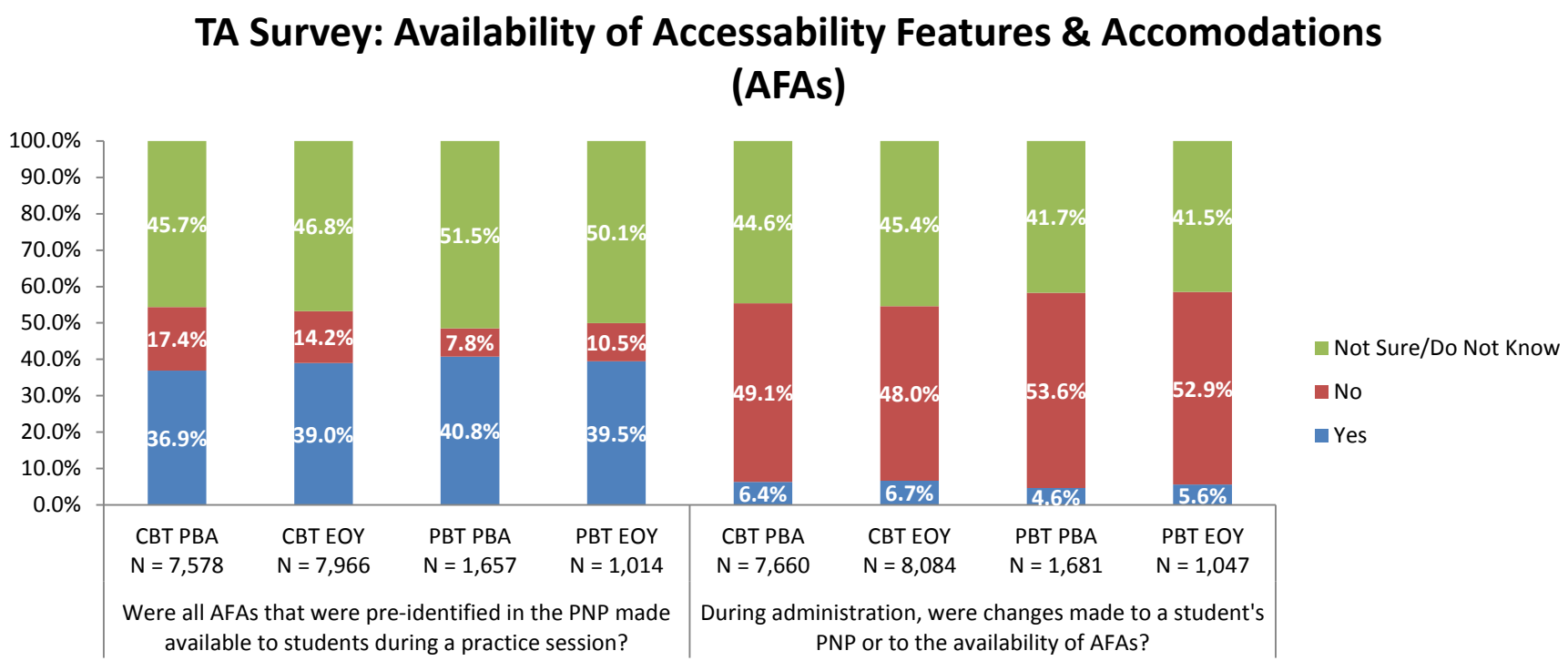

Figure 16. Percentage of TAs indicating availability of AFAs.

Percentages based on valid (non-missing) responses. For the values presented here, "Not Applicable" responses were excluded.

During the school visits, HumRRO observed 22 accommodation sessions which often included multiple accommodations. The accommodations observed included: 3 Read Aloud to themselves, 4 Human Reader, 8 Text-to-Speech, 15 Extended Time, and 14 Other (e.g., scribe, Braille, large print, note taker). The findings from these sessions indicate that no observed session received a rating of "Did Not Meet" and that only two sessions (9%) had a "Partially Met" rating because the students with an extended time accommodation were included in the same room with students receiving no accommodation; however, in both cases students finished within the regular testing time. Observer notes from six observed sessions (out of the 22 observed accommodation sessions) indicated that additional training or prompts in the script may be useful because there was some confusion with adjusting headphone volume (*it should be noted that PARCC is already addressing this*), needing new seal codes when continuing to another session (*it should be noted that PARCC is eliminating seal codes*), and whether or not human scribes should flip through the test booklets (PBTs) to ensure all questions are answered.

Additional information regarding accommodations was received during 15 interviews. In eight of the 15 interviews, TAs indicated that there were no problems with administering accommodations to their students. With regard to training, TAs in two interviews reported that they only reviewed the manual, and in six interviews TAs indicated they received more extensive training from their district or state. There were four interviews where TAs reported some problems, such as the text-to-speech or magnification did not work on some questions or that they were confused by differences between PARCC and state accommodations. Some TAs suggested that students should be able to tailor the text reading option to what is read (stimulus, answer options, passages), adjust the volume during testing, and adjust the speed of the text reading (e.g., slow, medium, fast). (*It should be noted that PARCC has already addressed the speed of text reading issue, and students can now adjust the speed of text reading*).

In summary, the findings related to accessibility features and accommodations indicate that the vast majority of TAs reported reading the AFA Manual prior to test administration; this was a notable increase from the field test. Moreover, the majority of TAs agreed that the AFA trainings and the AFA guidelines effectively prepared them to administer AFAs. Observer ratings from the observed accommodation sessions also indicate that in nearly all of the observed accommodation sessions the TAs performed the tasks related to accommodation sessions as intended. One area in which improvements might be made are for the PNP training and for the process for identifying AFAs in advance via the PNP. The TA Survey results suggest that improvements could be made to the process for identifying AFAs in advance via the Personal Needs Profile (PNP) so that it is clearer and easier to follow. Moreover, the survey findings indicate that the majority of TAs responded either "no" or "not sure" when asked whether all

the AFAs identified in the PNP were made available to students during a practice session. This finding suggests that PARCC leadership may want to incorporate some additional scrutiny to ensure that students who need AFAs are indeed given the opportunity to practice with those AFAs prior to actual test administration (*it should be noted that PARCC now has several paper-based and online practice tests available for the 2015 Fall Block administration*[8]). Efforts to improve the PNP-related training/components and the clarity of the process for identifying AFAs via the PNP should help to strengthen adherence to Standard 6.2.

Findings for Research Question 3: Do the students appear to understand the instructions provided to them?

The claim in the theory of action most directly related to Research Question 3 is, "Students respond to items as intended" (claim 4). For this claim to be true, important assumptions that must be verified are that: (a) students understand the directions provided by the TA, and (b) students understand the directions on the test. Findings from all three studies help to inform this research question and its underlying assumptions.[9]

Regarding whether students understand the directions provided by the TAs, the Student Surveys (both the mathematics and the ELA versions) ask students to indicate, "Did you understand all of the directions read by the person who gave you the test?" The Student Survey results show that the vast majority of students (approximately 80% or more) understood the directions read by the TA; this was true for both the field test and for Year 1 (see Figure 17). The TA Surveys (both the CBT and PBT versions) also addressed the question of whether students understood the directions read to them by the TAs. The TAs were asked to indicate their agreement with the statements, "Students appeared to understand the instructions I read to them during test administration," and "The instructions I read to the students covered all of the information necessary to take the test." The results presented in Figure 18 indicate that the majority of TAs administering the CBTs (85% – 88%) and the majority of TAs administering the PBTs (76% - 83%) agreed that students appeared to understand the instructions they read to them. The results presented in Figure 19 indicate that the majority of TAs administering CBTs (76% - 80%) and PBTs (72% - 79%) agreed that the instructions they read to students covered all

[8]As of 9-11-15, PARCC now has practice tests available for:

- Paper (regular)
  - Large print
  - Spanish
  - Spanish large print
  - Braille
- Online (regular)
  - Spanish
  - Text-to-speech
  - Spanish Text-to-speech
  - Screen reader
  - American Sign Language

[9]Additional evidence for Research Question 3 is presented under Research Question 7b. Research Question 7b asks, "What types of questions, if any, do students ask during the test administration?"

the information needed for students to take the test. For both of these TA Survey questions, the results for Year 1 represent a notable increase from the field test, particularly for TAs administering PBTs.

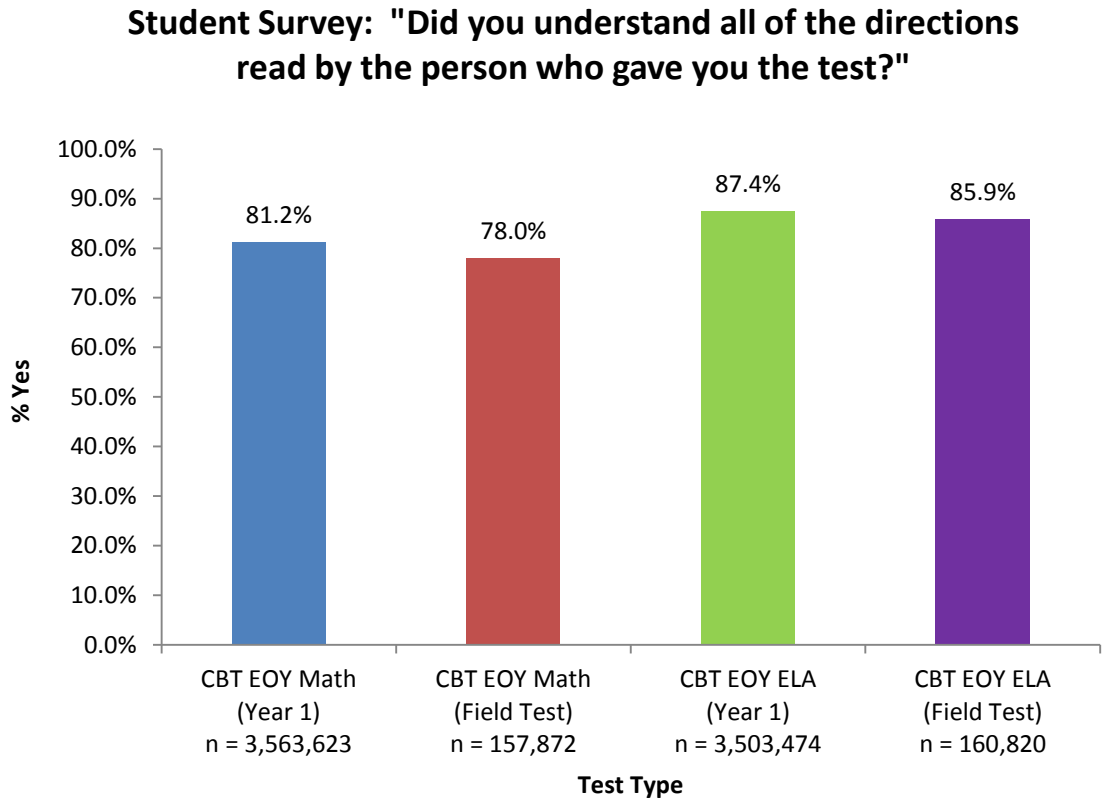

Figure 17. Percentage of students indicating they understood all the directions read by the TA.
Percentages are based on the number of valid (non-missing) responses.

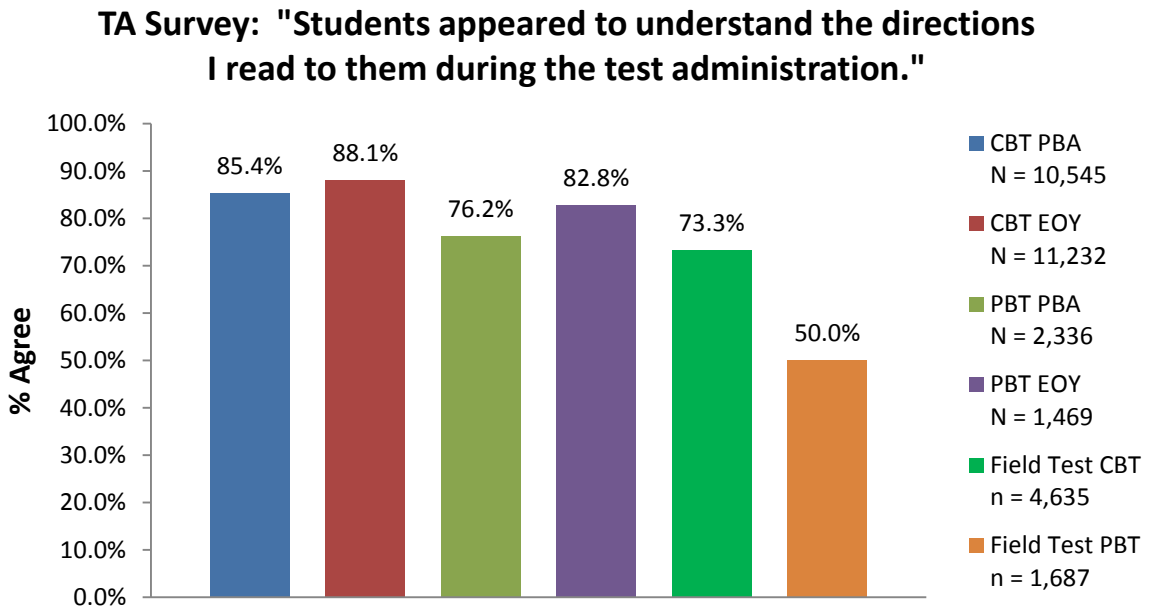

Figure 18. Percentage of TAs agreeing that students appeared to understand the directions they read to them.

Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses.

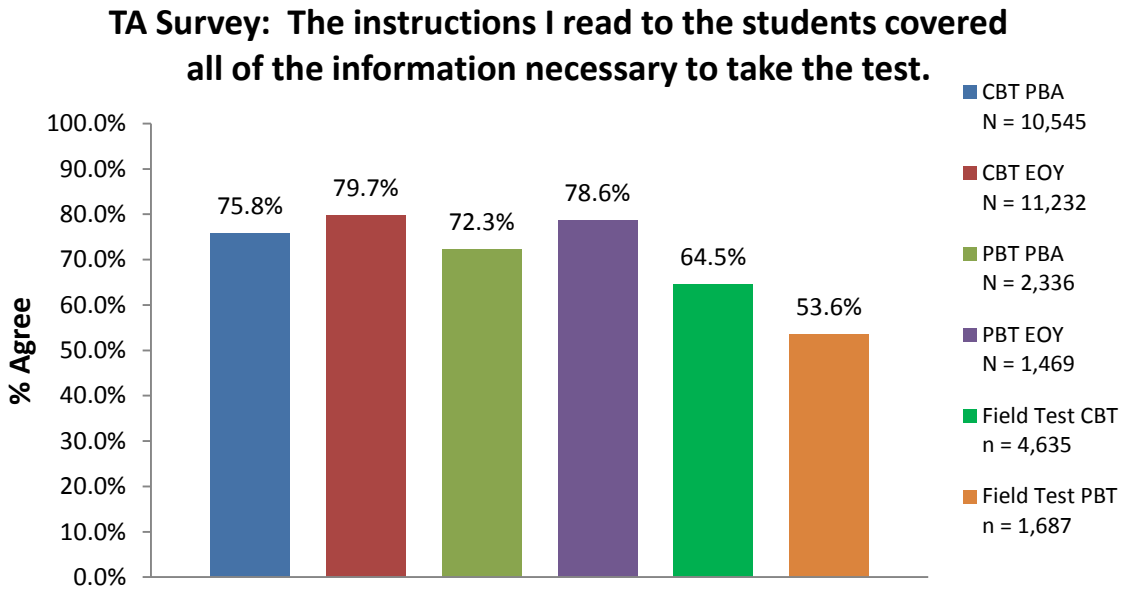

Figure 19. Percentage of TAs agreeing that the instructions they read to students covered all of the information students needed to take the test.

Percentages based on valid (non-missing) responses. Ratings made on a 4-point agreement scale. Results reflect the combined percentage of "Agree" and "Strongly Agree" responses.

Next, with regard to students' understanding of the *directions for the questions on the test*, the Student Survey results indicate that the majority of students (approximately half) reported that it was hard to understand the directions for the questions on the test "some of the time." As seen in Figure 20, this was true for both the field test and for the first year of the operational test. Findings were similar for Mathematics and ELA, although there is a slight trend indicating that the directions on the Mathematics tests might be somewhat more difficult to understand, as evidenced by the slightly higher percentage of students indicating that it was hard to understand the directions on the mathematics tests "almost always" or "most of the time" on both the field test and the operational test. These results indicate a lack of support for the assumption that students understand the *directions for the questions on the test*; most students (roughly 75% across subjects and administration modes) indicate that it was hard to understand the directions for the questions on the test at least some of the time. If students are having difficulty understanding the directions on the test, then they may not be responding to the test items as intended, which threatens the veracity of Claim 4 from the TOA (i.e., *Students respond to items as intended)*.

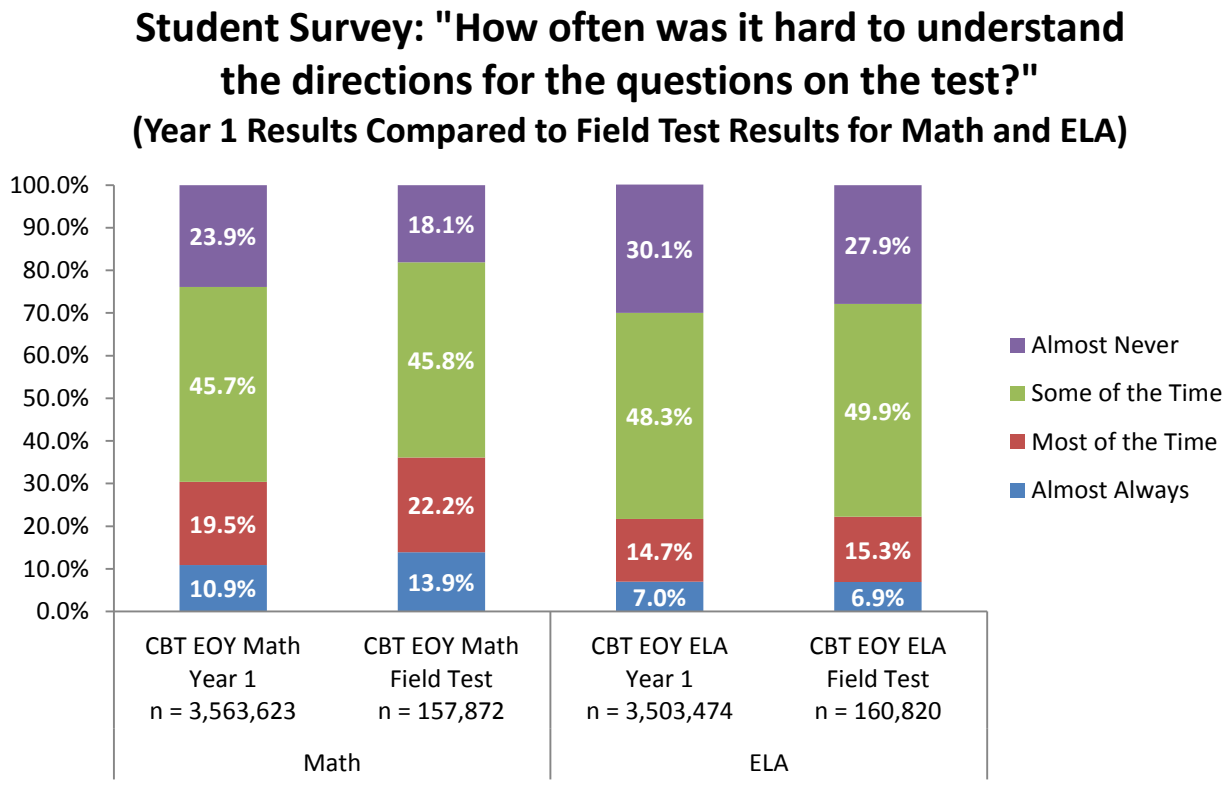

Figure 20. Percentage of students indicating that it was hard to understand the directions for the questions on the test.

Percentages are based on the number of valid (non-missing) responses.

A factor that may affect whether students understood: (a) the instructions provided to them by the TA and (b) the directions on the test for responding to test items, is whether the students had an opportunity to gain familiarity with the PARCC assessments prior to actual administration. Given that the PARCC assessments are new to students, it is reasonable to expect that students may be better positioned to understand the instructions if they had already practiced with PARCC content prior to test administration. This is consistent with the guidance for *Standards 4.16* and *6.5*. Consequently, the TA Surveys asked TAs to indicate the various ways that students in their session practiced with PARCC content prior to administration and the Student Surveys asked students, "How many times did you practice on a computer or tablet to get ready for this test?"[10]

Results from the TA Surveys indicate that approximately two-thirds of TAs administering CBTs indicated that students in their session(s) completed sample items and the practice test prior to test administration, and about half indicated their students completed the tutorial prior to test administration (see Figure 21). There was a consistent trend of more practice occurring for students taking the CBT than for students taking the PBT. This was particularly true for practice with the tutorials with over 50% of TAs administering CBTs indicating that their students practiced with the tutorials, whereas less than 15% of TAs administering PBTs indicated that their students practiced with the tutorials (see Figure 21).

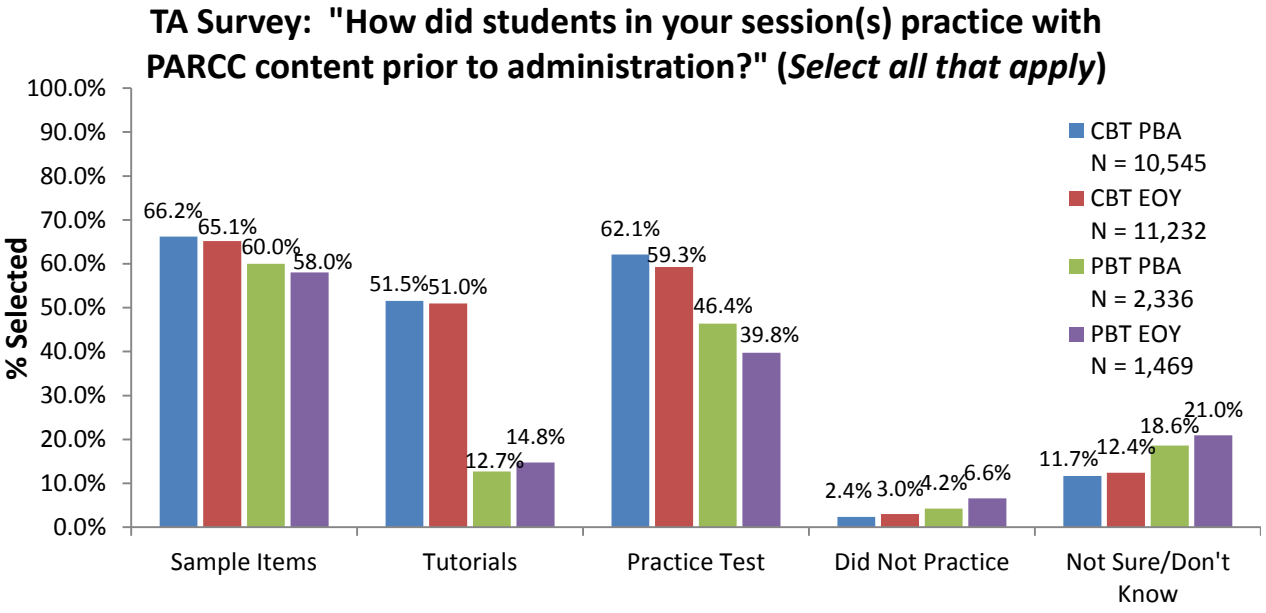

Figure 21. Percentage of TAs indicating how students in their session practiced with PARCC content.
Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses. Comparisons with the field test are not

[10]Recall that the Student Survey was only administered to students taking the EOY CBTs (math and ELA). The Student Survey was not administered to students taking PBTs.

presented due to differences in content of the survey questions and differences in the format of the survey questions from the field test to Year 1.

The Student Survey results also shed some light on students' interaction with PARCC content prior to test administration. The results in Figure 22 indicate that the majority of students taking the CBTs practiced one or more times on a computer/tablet prior to taking the test. Less than a third of the students reported that they "never" practiced on a computer/tablet to get ready for the operational test. This coincides with the results from the TA Survey, which indicated that roughly two-thirds of TAs reported that students taking CBTs completed sample items and took the practice test. Figure 22 also shows that the percentage of students reporting that they practiced on a computer/tablet "more than once" nearly doubled from the field test to Year 1 (from about 20% to about 40%).

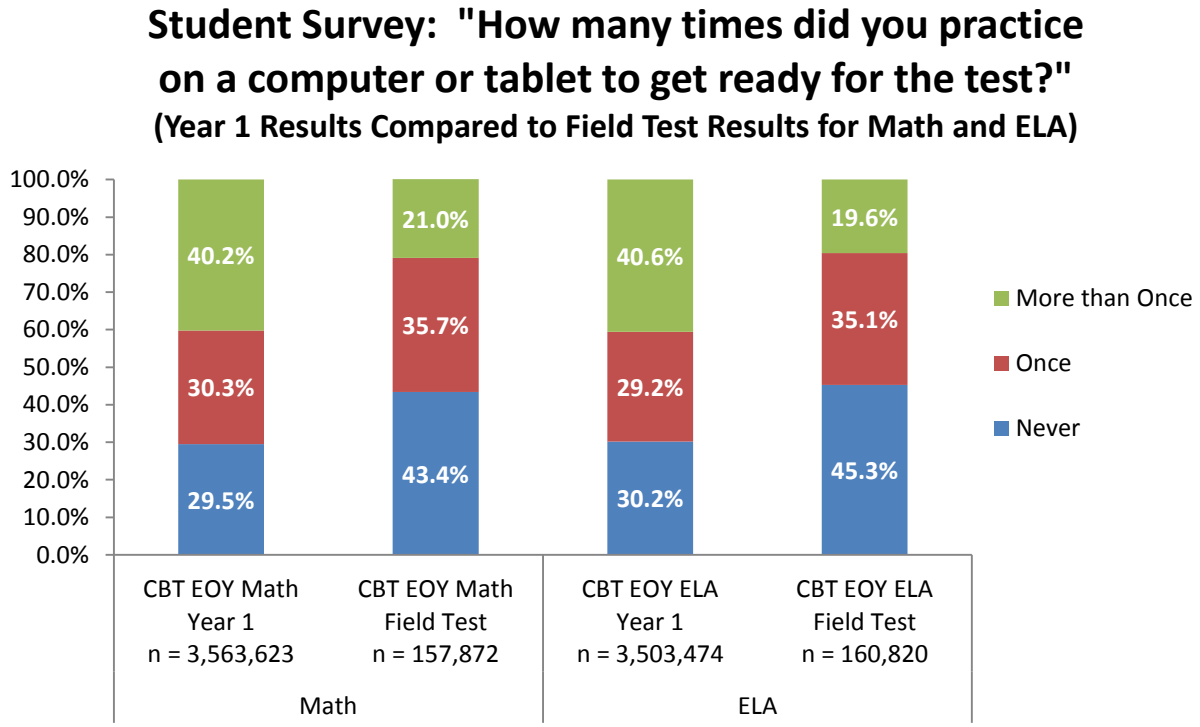

Figure 22. Percentage of students indicating how many times they practiced for CBT.
Percentages are based on the number of valid (non-missing) responses.

Finally, findings from the observation study also shed some light on Research Question 3. While there were no direct "tasks" on the observation checklist associated with students understanding the instructions, the observers did provide some insight into the types of questions students asked during the test. Student questions that observers noted from 20 CBT sessions (out of 91) were fairly evenly distributed across the following topics related to the use of technology: tool usage in order to answer questions, navigation related questions (e.g., scrolling), and logging on or logging off questions. Other questions from students that were not

related to the use of technology included: requesting help with unfamiliar words, diagrams, and other content-related questions to which the standard TA reply was, "…do your best."

In summary, most students reported that they understood the directions read to them by the TA. The majority of TAs also reported that students appeared to understand the directions they read to them and that the instructions covered all of the information necessary for students to take the test (for CBT and PBT); the percentages of TAs agreeing with these statements increased notably from the field test. Consequently, these results indicate that students understood the instructions provided by the TAs. On the other hand, the findings indicate that students had more difficulty understanding the directions on the test for responding to test items. Most students taking the CBT assessments reported that it was hard to understand the directions for the questions on the test at least some of the time. And findings from the observation study indicate that when students asked questions they were most likely to ask questions about how to use the technology within the assessment. Per *Standards 4.16* and *6.5*, students are more likely to understand test instructions if they have had practice with the items and with the mode of testing (e.g., computer-administered) prior to actual testing. Overall, the findings indicate that most students reported practicing on a computer/tablet one or more times prior to actual testing, which was an increase from the field test. Relatedly, the TAs administering CBTs indicated that almost two-thirds of the students practiced with sample items and a practice test prior to actual testing. However, only about half of the students completed the tutorial prior to taking the computer-based assessment (as reported by TAs). If more students taking the CBTs completed the tutorials prior to test administration, then this might help to improve students' understanding of the directions on the test and item types, particularly with regard to using the technology embedded in the assessment. With regard to the PBTs, the TA Survey results indicate that very few students completed the tutorial directed towards paper-based assessments. Consequently, additional efforts should be made to encourage completion of the student tutorials for PBT administration. In sum, the evidence indicates that students understand the instructions read by the TAs, but that they have more difficulty understanding the directions on the test for responding to test items. Additional clarity and detail in the instructions on the test and increased practice opportunities via completion of student tutorials are two efforts that could help tighten adherence to *Standards 4.16* and *6.5*.

Findings for Research Question 4: To what degree are students engaged in taking the test?

Research Question 4 also most directly addresses the claim that, "Students respond to items as intended" (claim 4). For this claim to be met, students must have some engagement with the assessment. Consequently, another assumption underlying the claim "that students respond to items as intended" is that students are engaged in taking the test. If students are not engaged

or if they have low levels of engagement, then they might not sufficiently attend to the items so as to respond to the items as intended.

There are many factors that can influence student engagement—for example, distractions from outside visitors, problems with the technology in the assessment, too little time to complete the assessment, to name just a few. The impacts of several of these types of potential factors were investigated through the three studies. First, from the School Visits Study, the observer ratings provided an indication of the extent to which students may have been distracted by outside visitors. Ratings from the observation checklist indicate that of the 109 observed sessions, all observations except one were either rated "Met" or "Not Applicable" for the task "no unauthorized visitors permitted during the testing session." The one exception was lunchroom staff preparing for student lunches for the first 15 minutes while students tested in the lunchroom; this may have been a source of distraction for these students and thus an impediment to student engagement.

Another possible indication of student engagement is the amount of time students took to complete the test. If students are rushing through the test and/or skipping items to finish on time, then student engagement is negatively impacted, which means students likely are not responding to items as intended. Conversely, if students are finishing the test very early, then that might indicate that students are not taking the time to carefully read the instructions and the test items in order to respond to the items to the best of their ability. Ideally, we would want to see the majority of students finishing the test on time. The results in Figure 23 show that the majority of students completing the CBTs did indeed indicate that they finished the test on time (48% - 49%), although there were nearly as many students indicating that they finished the test very early (44% - 45%). Figure 23 also shows that the majority of TAs (56%) reported that students finished the CBTs very early, although a sizeable percentage (42%) of TAs reported that the students finished the CBTs on time. These findings indicate that the length of time allotted for the CBTs is not so short that students must rush through the test to finish on time. However, given the sizeable percentage of students and TAs indicating that students "Finished Very Early," we cannot rule out the possibility that many students may not have taken their time to carefully read and respond to all the items on the test to the best of their ability. Another likely explanation for the high percentage of "Finished Very Early" is that there may have been too much time allotted for the CBTs. Finally, while there was no Student Survey administered to students taking the PBTs, results from the PBT version of the TA Survey show that the majority of TAs administering PBTs indicated that students finished the PBTs "On Time" (62% for the PBT PBA and 52% for the PBT EOY).

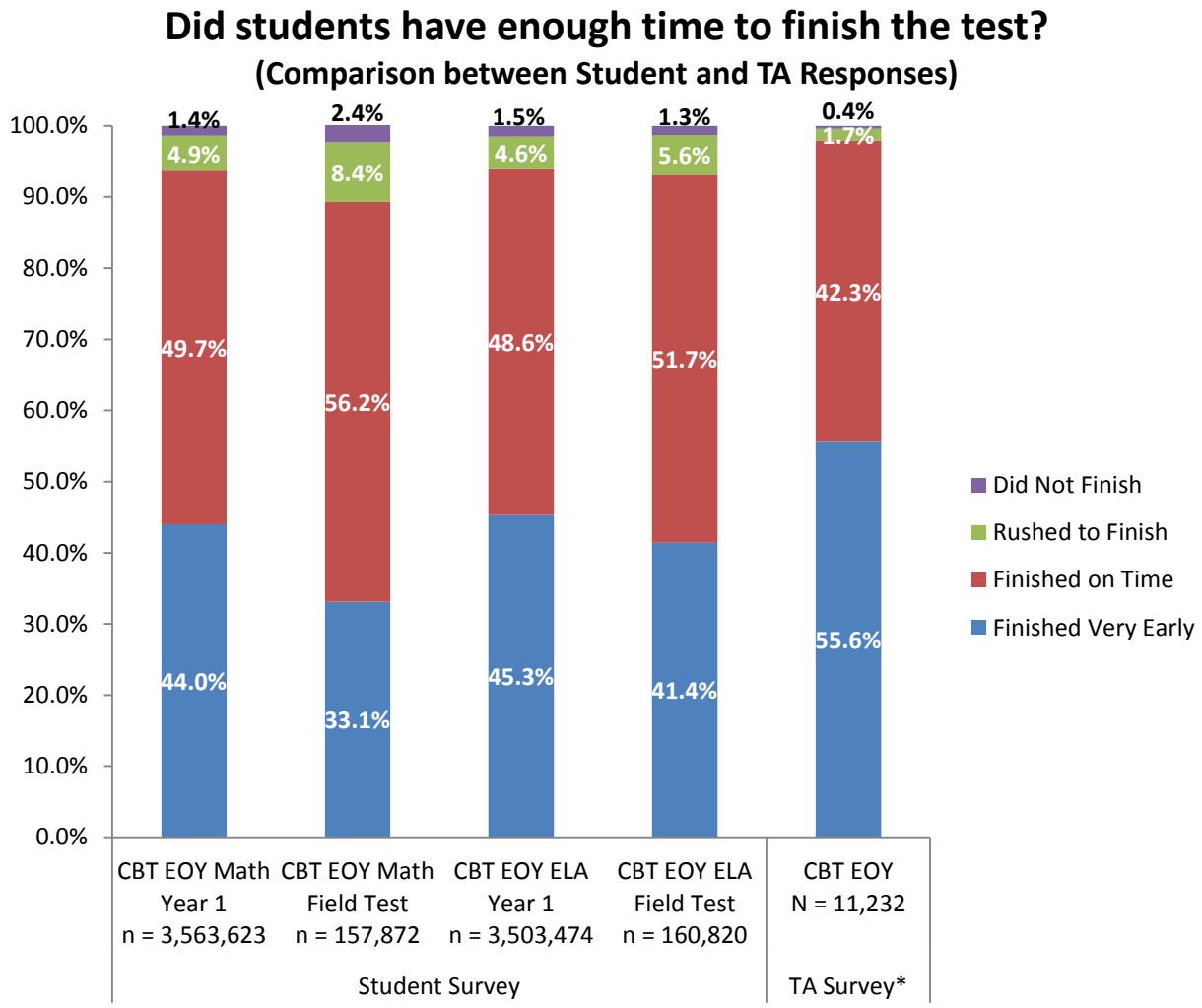

Figure 23. Percentages of students and TAs indicating whether students had enough time to finish the test (CBT).

Percentages are based on valid (non-missing) responses.
*Results from the TA Survey for CBT EOY administration are presented here to compare with results from the same assessment (CBT EOY) on which students provided survey responses. Results from the TA Survey for CBT PBA administration were similar to the results for CBT EOY administration. No comparison with the field test results for the TA Survey are provided because a different question was asked on the field test TA Survey.

Another factor that may impact student engagement is students' familiarity with the content on which they are being tested. If most of the test questions cover content that is unfamiliar to the students, then students might "give up" on the test. Relatedly, if most of the test questions are more difficult than the content to which students are accustomed, then students might also be more likely to "give up." To help inform whether these might have been concerns for the PARCC assessments, the students were asked to indicate, "How many questions asked you about things you have not learned in school this year?" and "How difficult was this test?" Less than a third of the students indicated that "most" or "all" of the questions on the mathematics assessments asked them about things they have not learned, and less than a fourth of the

students indicated that “most” or “all” of the questions on the ELA assessments asked them about things they have not learned (see Figure 24). The majority of students (approximately half) indicated that “a few” of the questions asked them about things they have not learned in school (for both mathematics and ELA). These survey results were very similar to the results from the field test (see Figure 24). With regard to the difficulty of the test, the majority of students (51%) indicated that the mathematics assessment was “harder than their school work,” although the percentage of students endorsing this response option was somewhat lower than it was for the field test (51% as compared to 59%) (see Figure 25). For the ELA assessment, the majority of students (51%) indicated that the difficulty of the ELA test was “the same as their school work.” This result was similar to the result from the field test (see Figure 25). Overall, the set of findings depicted in Figure 24 indicate that the majority of students were familiar with most of the content on the assessments. Consequently, lack of familiarity with test content was not likely to have been a major impediment to student engagement for the majority of the test takers. On the other hand, there is some evidence to suggest that students might have been dissuaded by the difficulty of the mathematics assessment (Figure 25), which could have negatively impacted student engagement, although this result could also be an indication that students’ mathematics school work is not sufficiently challenging. These findings should be taken into consideration in conjunction with other findings from the studies.

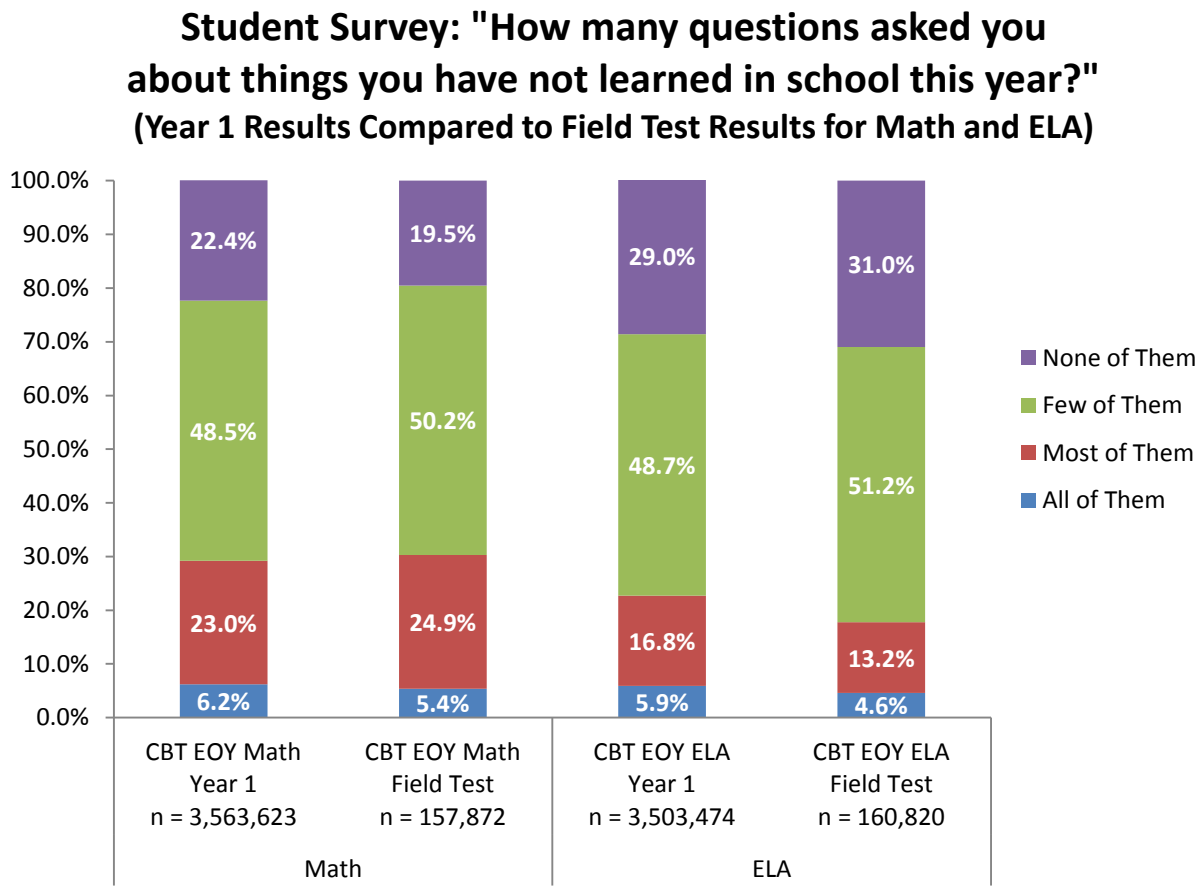

Figure 24. Percentage of students indicating how many questions asked about things not learned in school.

Percentages are based on valid (non-missing) responses.

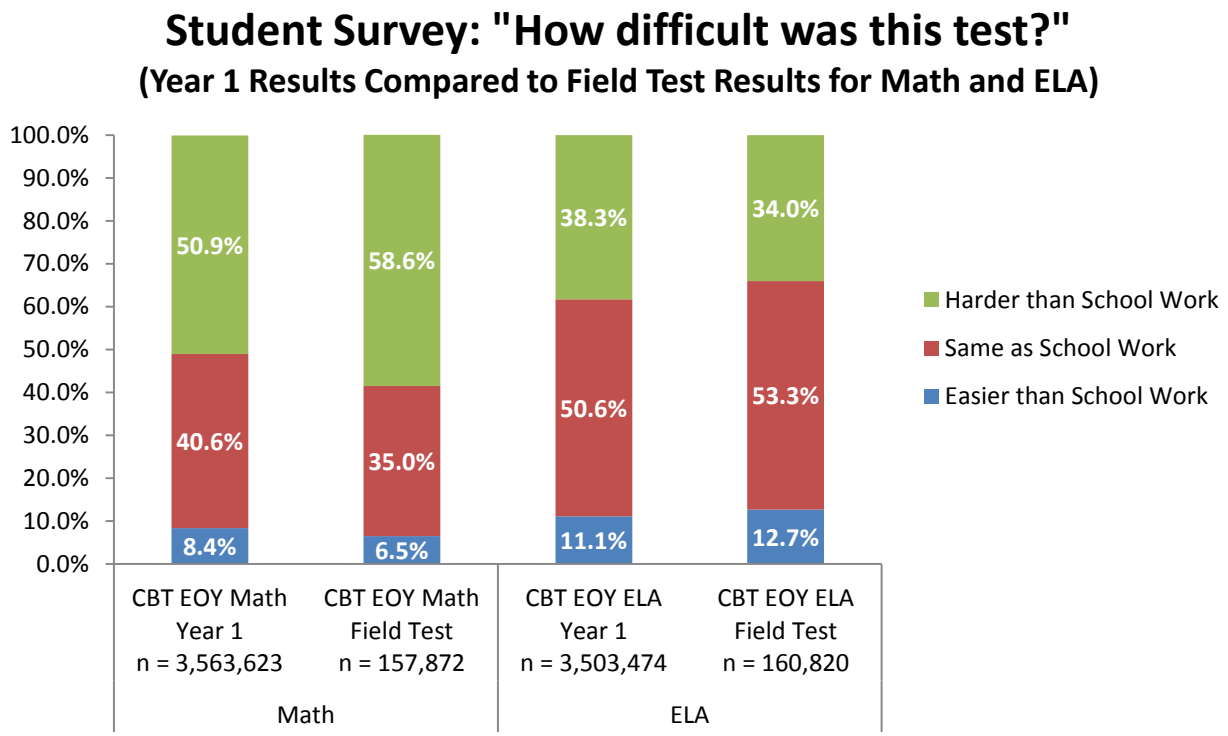

Figure 25. Percentage of students indicating test was harder, same, or easier than school work.
Percentages are based on valid (non-missing) responses.

A factor that might impact student engagement that is specific to the computer/tablet-based assessments is students' familiarity with using computers/tablets. If students do not have the opportunity to work with computers/tablets at home or at school, then this mode of testing would be unfamiliar to them. The findings presented in Figures 26 and 27 indicate that lack of familiarity with computers/tablets is not likely to have been an impediment to student engagement for the vast majority of students. More than half of the students indicated that they use a computer or tablet every day at home and only 7% indicated that they do not use a computer/tablet at home. Moreover, two-thirds or more indicated that they use a computer or tablet at school a few times a week or more, and only 3% indicated that they do not use a computer or tablet at school. These results were very similar to the results from the field test. Consequently, based on these Student Survey results, the student test-takers are very familiar with using computers/tablets. Given this, it is perhaps not surprising that when asked "Would you rather take this test on paper or on a computer or tablet?" more than two-thirds indicated that they would rather take the test on a computer/tablet (see Figure 28). These findings are consistent with findings obtained from the debriefing interviews with TAs; during the debriefing interviews some TAs commented that students appeared to enjoy the videos and the different types of items (e.g., drag and drop).

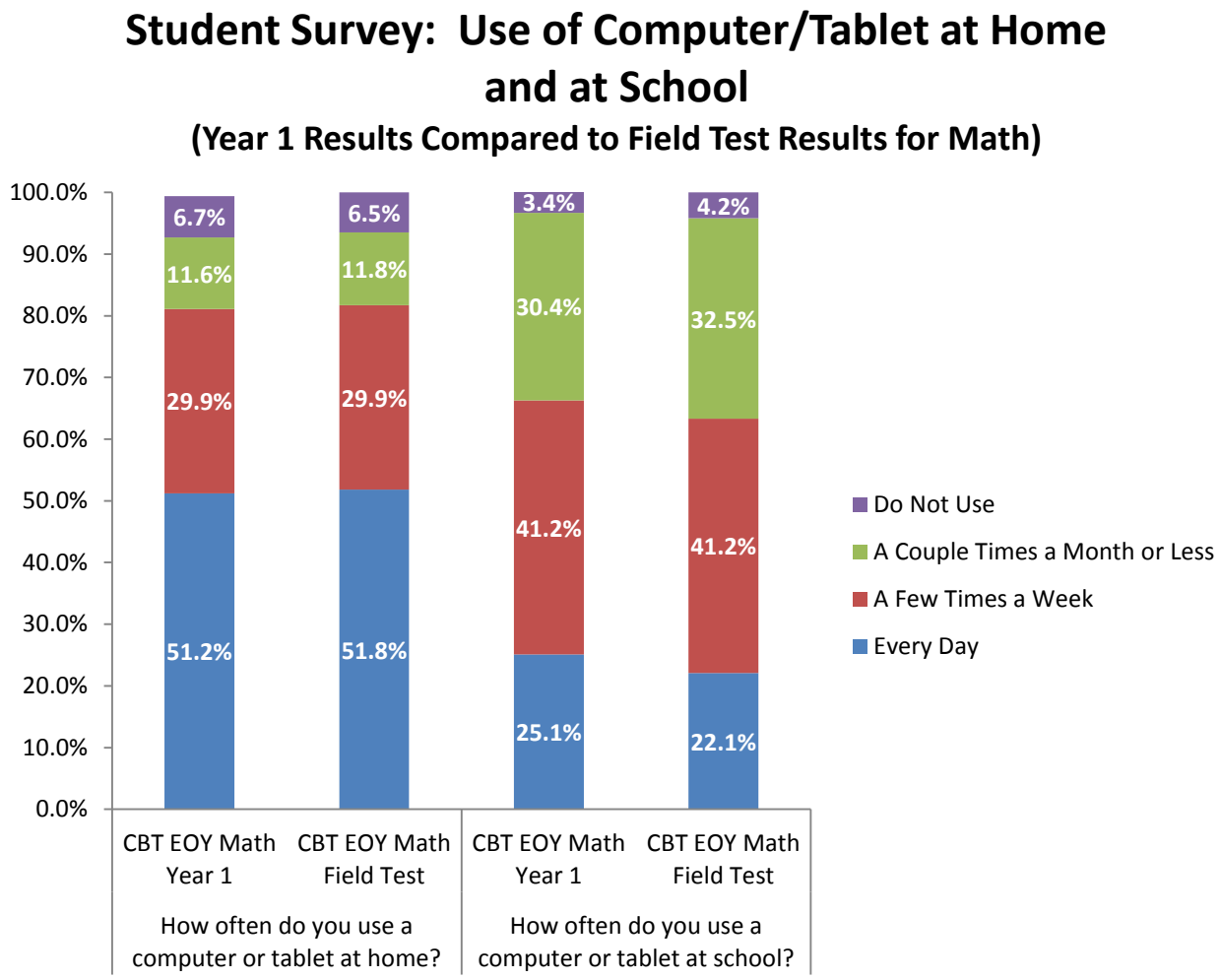

Figure 26. Percentages of students indicating how often they use a computer/tablet at home and at school (mathematics).

Percentages are based on valid (non-missing) responses.

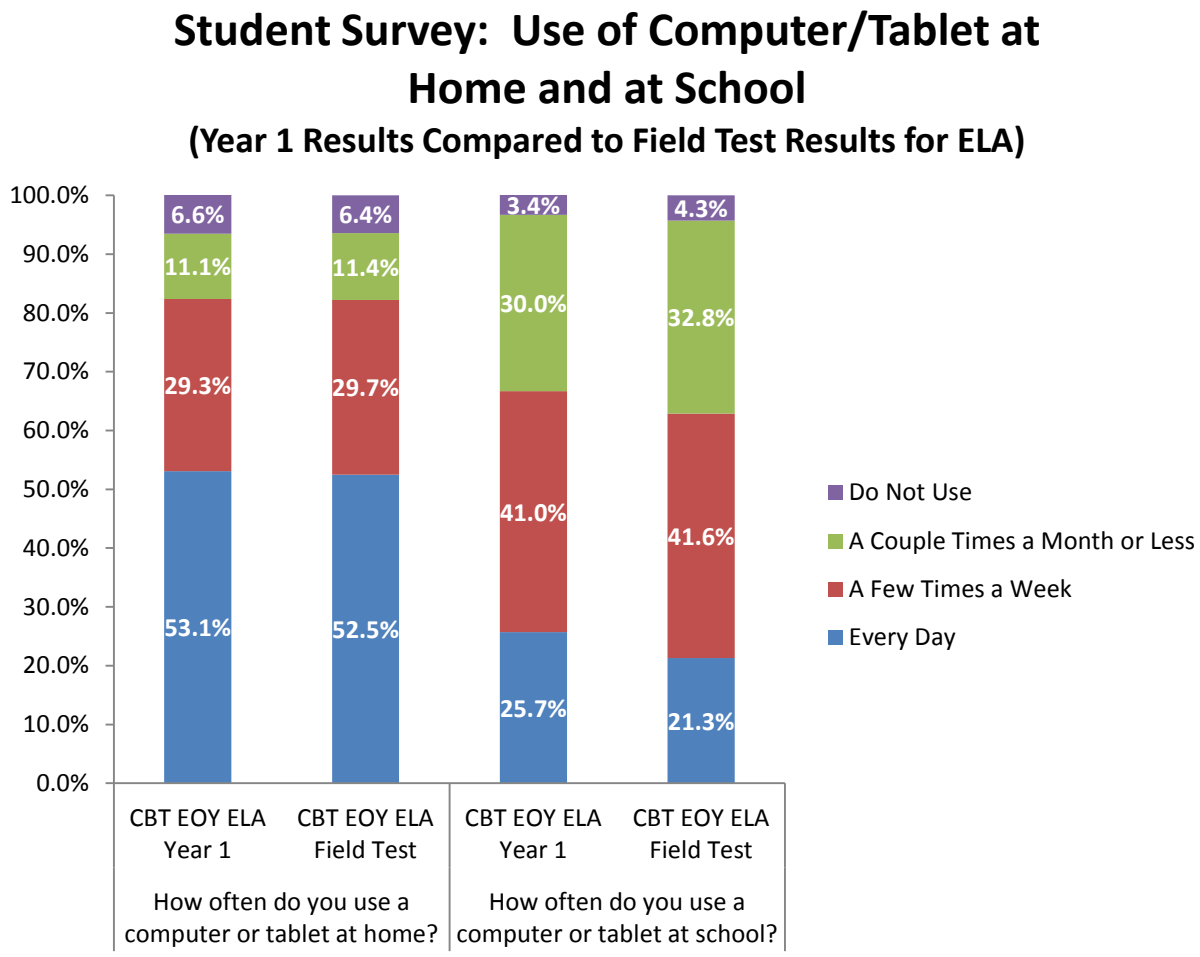

Figure 27. Percentages of students indicating how often they use a computer/tablet at home and at school (ELA).

Percentages are based on valid (non-missing) responses.

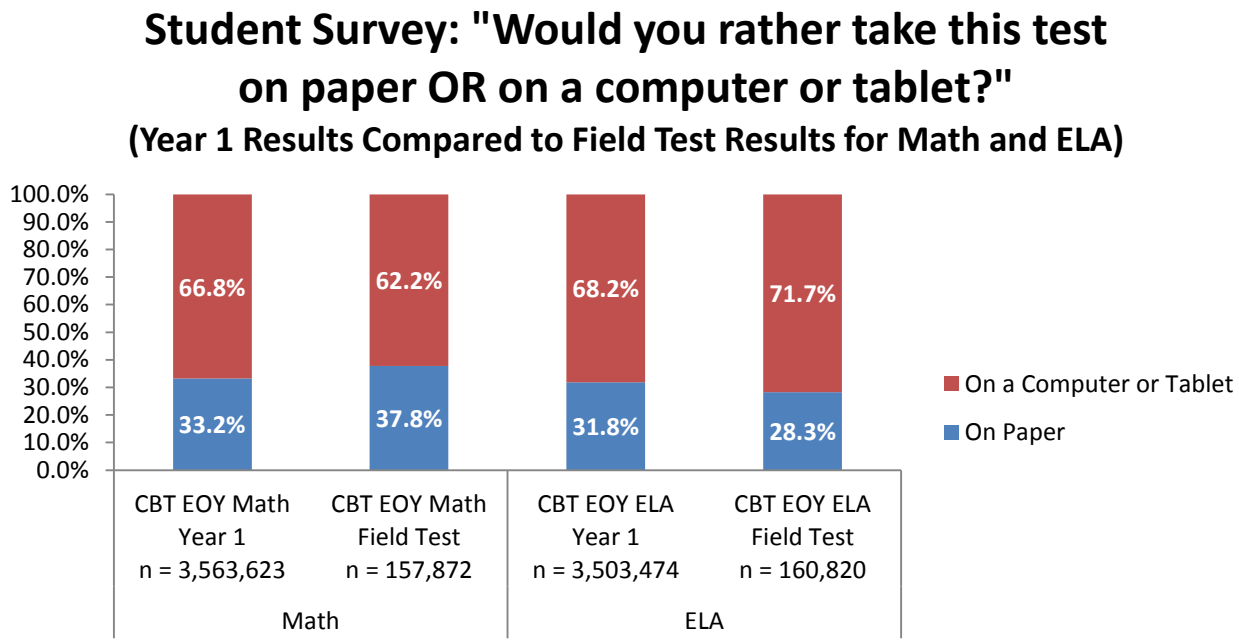

Figure 28. Percentage of students indicating they would rather take the test on a computer/tablet.
Percentages are based on valid (non-missing) responses.

A final factor explored in these studies that may negatively impact student engagement is the occurrence of technology-related problems during the CBT administration. There is documented evidence that technology-related problems—of a local nature as opposed to a system-wide nature—were a concern for the field test administration (see *PARCC Field Test: Lessons Learned,* PARCC, 2015 and Sinclair et al., 2015). As a result, the PARCC consortium implemented several enhancements to help improve the "local technology experience." Those enhancements included additional infrastructure trials prior to test administration, enhanced guidance and documentation for the SystemCheck tool, updated training modules on conducting infrastructure trials and proctor caching, a new technology preparedness training module, and enhanced communication to states and districts regarding technology preparedness (see *PARCC Field Test: Lessons Learned,* PARCC, 2015). For the field test, between 40% (PBA Math) to 59% (EOY ELA) of students reported that "no technology-related problems occurred" during CBT administration. For Year 1, the percentage of students reporting that "no technology-related problems occurred" increased to nearly 80% for both the Mathematics and ELA CBTs. This indicates that technology-related problems were not an impediment to student engagement for the majority of student test-takers, and it also suggests that the consortium's actions taken after the field test to help improve the local technology experience were beneficial. Converging findings from the School Visits Study indicate that observers noted that technology-related problems occurred in only 27% of the observed sessions (29 of 109

sessions), and that the problems were reported to be resolved fairly quickly. This is in contrast to the extensive connectivity problems observed during the field test study where approximately one-third of the schools visited experienced problems considered severe that either took an hour or more to resolve or suspended testing altogether. (Additional information and discussion of technology-related concerns are discussed under the results for Research Question 7a, "Are there any technology-related problems during test administration?")

A final source of evidence on student engagement comes from the School Visits Study. After observing test administration, the observers interviewed the TAs and asked them, "Was student engagement high, moderate, or low? This question was answered in 67 of the interviews, with TAs from 52 interviews (78%) reporting that student engagement was moderate or high. Overall, the TAs administering the CBTs indicated that students appeared to enjoy the videos and the different types of items (e.g., drag and drop) and that several students reported to their TA that they liked the computer test better than the traditional paper and pencil test, even though many thought it was more difficult. These types of comments from the TAs during the debriefing interviews were consistent with the observer notes in the observation checklists. The observers generally noted that students appeared to be engaged during testing and were respectful of others who were still working. Typical observer notes included, "students remained engaged in spite of delays with connectivity issues," and "students seem focused and motivated." There were only two schools where observers noted that students appeared bored and finished the test in less than 15 minutes (e.g., "students not engaged with one asleep and others not following directions").

In summary, with regard to Research Question 4, "To what degree are students engaged in taking the test?" the evidence from these studies indicate that there was very little evidence of distractions caused by unauthorized visitors, students did not have to rush to finish the test, most of the questions on the test covered topics students had already learned about in school, most students were very familiar with the mode of assessment (CBT) and they preferred that mode of assessment, and there were few reports by students and observers of distractions caused by technology-related problems. Moreover, feedback obtained from the TAs in the debriefing interviews and comments made by observers on the observation checklist indicated moderate to high levels of student engagement. Collectively, these findings indicate a reasonable degree of student engagement such that a lack of student engagement is not likely to have resulted in students not responding to items as intended. Only test difficulty emerged as a potential factor that might have negatively impacted student engagement, particularly for the mathematics assessments. Most students reported that the mathematics assessments were harder than their school work. The primary factors that emerged in the field test as impediments to student engagement—overly lengthy and redundant test instructions read by

the TAs and delays caused by technology-related problems—appeared to have been reconciled since the field test, as these did not emerge as impediments to student engagement in Year 1.

Findings for Research Question 5: Is there any disruptive student behavior during the session?

This research question also gets to the heart of the claim that "students respond to items as intended" (claim 4). Another assumption underlying this claim is that students' attention is *not* adversely impacted by other disruptive students. To the extent that disruptive student behavior is minimized, then this increases the likelihood that students attend to the test and respond to items as intended.

The observer ratings from the Observation Study provide an indication of the extent to which disruptive student behavior was minimized. Ratings from the observation checklist indicate that, of the 109 observed sessions nearly all were rated as having 'Met' the tasks of: "Ensure students leave belongings in central area (i.e., cell phones, other electronics, and reference books)," "Monitor students by circulating around the room," "Handle student misconduct appropriately (e.g., talking, cheating, using electronic devices)," and "Handle students finishing early appropriately (i.e., following state guidance)." This information helps support the assumption that students' attention was not adversely impacted by disruptive student behavior. While disruptive student behavior does not appear to be a widespread concern, observers noted there were some instances of students talking or giggling too much in four different schools; however, the observers noted that the TAs quickly settled those disruptions. There were two schools were a student was dismissed from the test because he or she did not quiet down as requested; the observers indicated that the TAs' actions were appropriate.

In summary, the findings for Research Question 5 indicate that disruptions caused by students' behavior during the testing session were minimal. Consequently, there is no need for recommendations for improvement in this area.

Findings for Research Question 6: Are there any apparent attempts to record or copy test materials including the test questions by students or others?

This research question most directly addresses the claim that, "TAs are prepared to administer the assessments as intended" (claim 1). An important component of test administration is ensuring that the test content remains secure. To do otherwise would threaten the validity of the testing system. A source of evidence for this research question is the observations conducted as part of the School Visit Study. Several tasks on the observation checklist pertain to issues related to test security. The collective set of selected tasks and the degree to which they were met (as determined by the trained observers) are presented in Table 12. The results in Table 12 indicate that most of the tasks related to test security were rated as "Met." Tasks that did not have a high percentage of "Met" ratings typically occurred because that task was

either “Not Observed” or was “Not Applicable” (such as not providing breaks or materials not returned to the TC since the TC administered the test). An exception to the “Met” ratings occurred for “prepare testing room” for 11 of 109 observations (10%). Observer notes indicate that the primary issue with room preparation was with the lack of use of partitions or lack of sufficient space between computers as indicated in the manual. Typical observer comments were: “seating was tight (not much space)” and “students next to one another, but seemed used to it.” Observers did report that a few students appeared to be looking at others’ computer screens for the CBT; however, they indicated that those students had finished testing and appeared to be bored waiting for others to finish. Also, one observer gave a rating of “did not meet” in two sessions for the “Provide group a 3 minute break if necessary” task with a note that one student did not log off his or her computer.

Table 12. Summary of Observation Checklist Items Pertinent to Test Security

	Ratings									
	CBT					PBT				
	Met	Partially Met	Did Not Meet	Not Observed	NA	Met	Partially Met	Did Not Meet	Not Observed	NA
	%	%	%	%	%	%	%	%	%	%
Prepare testing room.	69.2	13.2	0.0	14.3	3.3	100.0	0.0	0.0	0.0	0.0
Confirm student roster matches Student Authorization Tickets.	67.0	3.3	0.0	29.7	0.0					
Allow authorized visitors only.	91.2	1.1	0.0	0.0	7.7	94.4	0.0	0.0	0.0	5.6
Ensure students leave belongings in central area.	90.1	2.2	0.0	5.5	2.2	88.9	0.0	0.0	11.1	0.0
Monitor students by circulating around the room.	100.0	0.0	0.0	0.0	0.0	77.8	0.0	0.0	0.0	22.3
Provide group a 3 minute break if necessary.	24.1	3.3	2.2	1.1	69.2	44.4	0.0	0.0	0.0	55.6
Handle testing irregularities (fire drill)	46.2	0.0	0.0	1.1	52.7	0.0	0.0	0.0	0.0	100.0
Handle student misconduct appropriately.	16.5	3.3	0.0	1.1	79.1	11.1	0.0	0.0	0.0	88.9
Collect Student Authorization Ticket (CBT) or test booklet (PBT) and any test materials.	91.2	2.2	0.0	4.4	2.2	88.9	0.0	0.0	11.1	0.0
Return testing materials to TC	49.5	0.0	0.0	30.7	19.8	44.4	0.0	0.0	33.3	22.2

Note. NA= Not applicable.
Number of observed CBT sessions is n = 91; number of observed PBT sessions is n = 18.
Shaded rows indicate items not applicable to that administration type.

In summary, there was no evidence of overt attempts to record or copy test materials by students or others. Findings from the observations of test administration indicate that most of the tasks related to test security were rated as "Met," thereby indicating evidence to support adherence to *Standards 6.6* and *6.7*. An exception to the "Met" ratings occurred for "prepare testing room." Observer notes indicate that the primary issue with room preparation was with the lack of use of partitions and the lack of sufficient space between computers.

Findings for Research Question 7a: Are there any technology-related problems during test administration?

This research question is most closely related to the claim that, "Technology improves and facilitates the assessment experience" (claim 3). If interruptions are caused by problems with technology, then the veracity of this claim is threatened. All three studies address this research question for the CBT administrations.

First, the results from the TA Survey are presented in Figure 29 with comparisons provided for Year 1 and the field test, where applicable. The two most frequently reported problems with technology in Year 1 were with logging students onto the assessment and with the system disconnecting/logging students out. Over half of the TAs reported that these problems occurred in Year 1. With regard to comparisons with the field test results, the findings for Year 1 are very similar. For example, for the field test, 13% of TAs reported that "no technology-related problems occurred" and for Year 1 the result was nearly the same. However, the findings from the School Visits Study provide some context to these TA Survey results. Findings from the school visits in Year 1 indicate that the severity of the technology-related problems were much less than those observed during the field test. Moreover, findings from the school visits in Year 1 indicated that most technology-related problems were resolved within a couple of minutes or less. Consequently, even though the TA Survey results indicate that the prevalence of technology-related problems were similar in the field test and in Year 1, the additional contextual information obtained from the school visits indicate that the magnitude and duration of those technology-related problems were much less for Year 1.

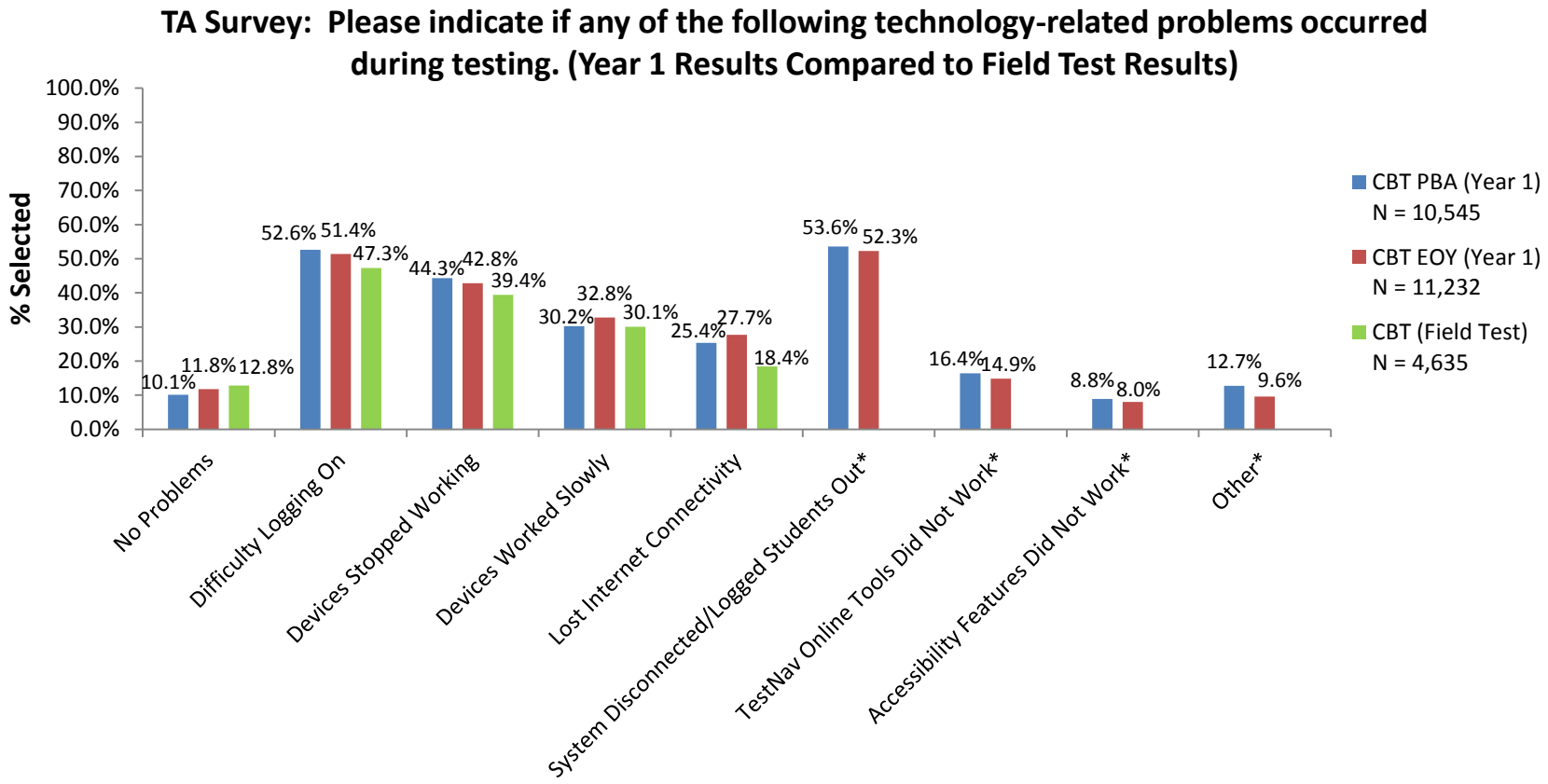

Figure 29. Percentage of TAs indicating particular types of technology-related problems occurred

Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

*These questions did not appear on the field test version of the TA Survey.

As reported under Research Question 4, the percentage of students indicating that there were no technology-related problems during Year 1 was nearly 80% (for both the mathematics and ELA assessments); this was a substantive improvement from the field test results where only 54% - 59% of students reported no technology-related problems on the EOY assessments in the field test (see Figure 30). This suggests that the actions taken by PARCC to help ameliorate the technology-related concerns discovered in the field test were beneficial.

As with the TA Survey, the student test-takers were also asked to indicate which kinds of technology-related problems occurred while they were taking the test. Difficulty logging on was the most frequently reported problem with approximately one-fourth of students indicating that they encountered this problem on both the mathematics and ELA assessments (see Figure 30). This was also among the most frequently reported technology-related problems by TAs, although over 50% of TAs reported this as a problem. It is not surprising that smaller percentages of students reported technology-related problems and higher percentages of TAs reported technology-related problems given that students were responding to the survey based on their individual test experience whereas TAs were responding based on their experience of administering the assessments to all their students across all their test sessions. The percentages of students reporting that they encountered other technology-related problems were similar for the field test and Year 1. Even though these percentages were similar for the field test and Year 1, the findings from the School Visits Study indicate that the severity of these technology-related problems was much less in Year 1, which helps to explain why considerably more students reported “no technology-related problems” in Year 1.

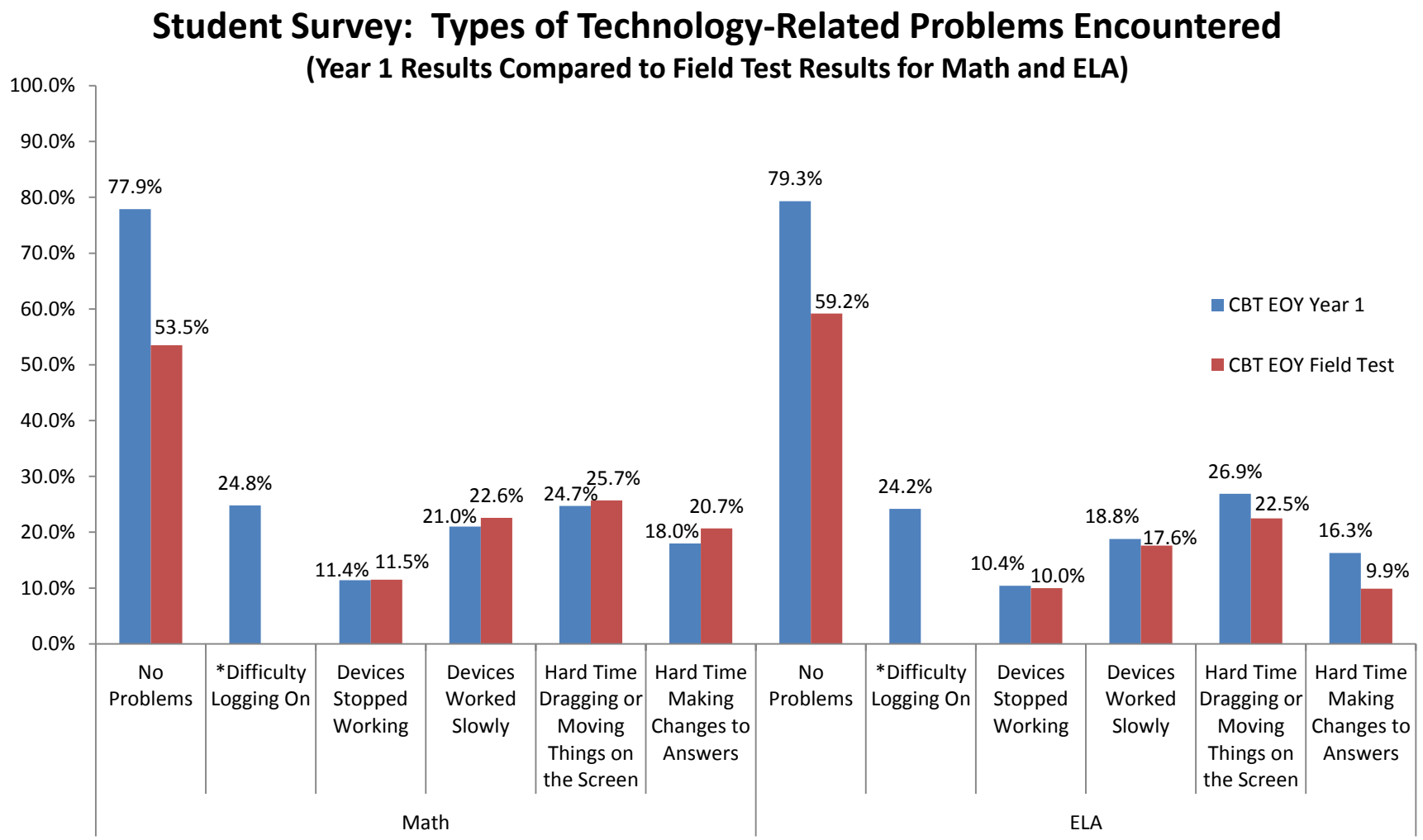

Figure 30. Percentage of students indicating particular kinds of technology-related problems occurred during test administration.

It should be noted that the survey items were formatted differently on the Year 1 and the field test surveys. For the field test, the survey item was formatted as "Select all that apply" and for Year 1, the survey items were formatted as "Select One" (i.e., Did this problem occur? Y/N).

*This response option was not included on the field test version of the Student Survey. This response option was added to the Year 1 Student Survey based on findings from the field test, which indicated that "difficulty logging on" was encountered during the field test.

Findings from the School Visits Study indicate that technology-related problems occurred in 29 of the 109 observed test sessions (27%). The findings from the field test indicate that technology-related problems occurred in 68% of the observed test sessions; consequently, there was a substantial decrease in the occurrence of technology-related problems from the field test to Year 1, as evidenced from School Visits Study. Difficulty logging on was the most frequently observed technology-related problem in Year 1, which is consistent with findings from the TA Survey and Student Survey. Problems with the system disconnecting ("kicked out") were also among the most frequently observed problems in Year 1; this is also consistent with findings from the TA Survey. The observers noted that the technology-related problems were resolved within minutes for nearly two-thirds of the sessions. In only two test sessions (1%) did the observers note that the technology-related problem took longer than 20 minutes to resolve. These findings are in contrast to the field test, where 17 of 61 observed schools (28%) experienced technical problems that took over 10 minutes to resolve. It took over 30 minutes to resolve technical issues in six of those schools and problems were so severe testing was suspended in four schools.

The debriefing interview with TAs provided confirmatory information regarding the types of technology-related problems. Table 13 contains a breakdown of the types of technology-related problems TAs mentioned during the debriefing interviews. Again, the primary problems TAs identified were with students being kicked-off the system (10 interviews) and with difficulty logging students on or off the system (7 interviews).

Table 13. Types of Technology-Related Problems Noted by TAs during Interviews

Theme	Sources[a]	References[b]
Kicked out; reset quickly	10	11
Login issues; resolved quickly	7	8
JAVA issues; updated quickly	5	5
Froze-up; restarted quickly	4	4
Connectivity, more than 20 minutes to resolve	2	2

[a]Indicates number of interviews providing information about that topic. [b]Indicates number of notes and/or comments made about that topic.

In addition to the types of technology-related problems discussed above, the Student Surveys also asked students about some other features related to the technology of CBTs. Both versions of the Student Survey (mathematics and ELA) asked students the following questions about the tools: "Was it easy to use the highlighter tool?" and "Was it easy to make pictures or words bigger or smaller?" The results displayed in Figure 31 indicate that for the mathematics assessments approximately half (52%) of the students reported that they did not use the highlighter tool and 43% indicated that it was easy to use the highlighter tool (which was over

85% of those who used the tool); the results were similar for the field test, although for Year 1 there was a slight trend of fewer "Did not use" ratings and more "Yes" ratings. For the ELA assessments fewer students indicated that they "Did not use" the highlighter tool than what was found for mathematics (41% "Did not use" for ELA compared to 52% for math). More than half of the ELA students indicated that "Yes" it was easy to use the highlighter tool (which was over 90% of those who used the tool), although that was down somewhat from the field test results (53% in Year 1 compared to 61% in the field test).

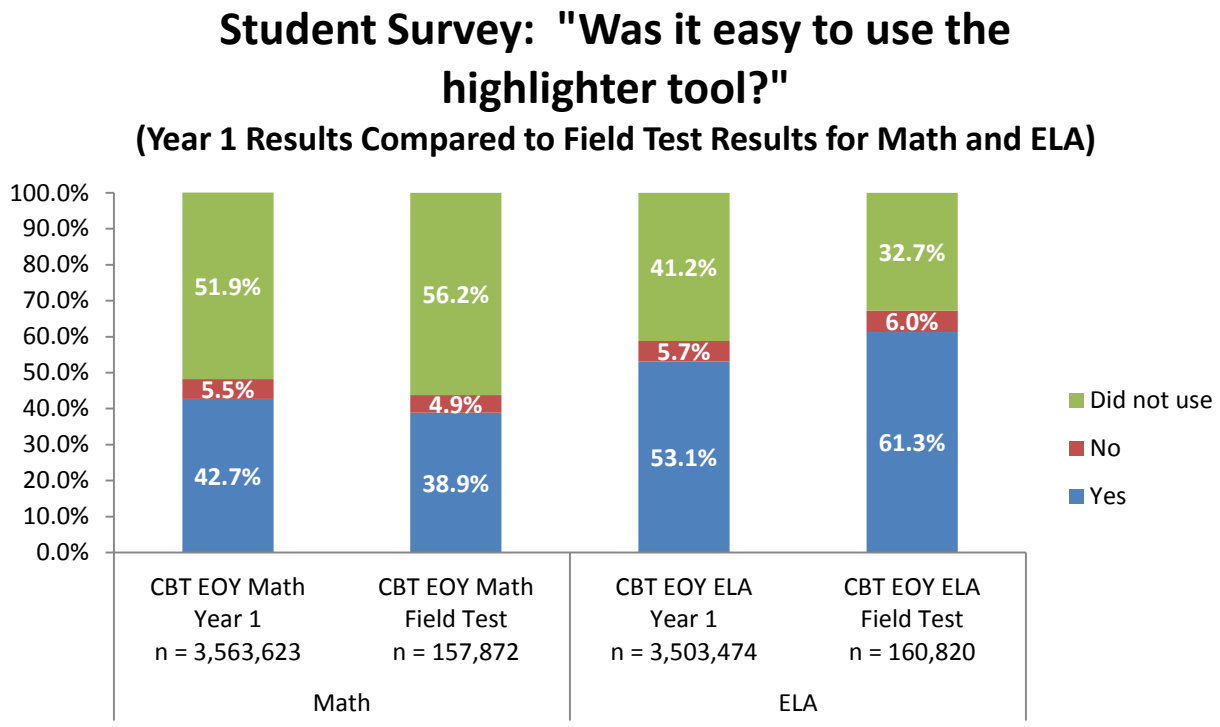

Figure 31. Percentage of students indicating it was easy to use the highlighter.
Percentages are based on the number of valid (non-missing) responses.

Figure 32 displays the results for the Student Survey question, "Was it easy to make pictures or words bigger or smaller?" Most students (approximately 70%) indicated that they did not use this magnification tool for either the mathematics or ELA assessments. This was a somewhat higher percentage of "Did not use" ratings than what was found for the field test, particularly for ELA (62% of ELA students indicated they did not use the magnification tool on the field test). Of those who did use the magnification tool, a greater percentage reported that "Yes" it was easy to make pictures or words bigger or smaller than "No" (when those who did not use the tool were excluded, over 70% indicated that "yes" it was easy to use the magnification tool).

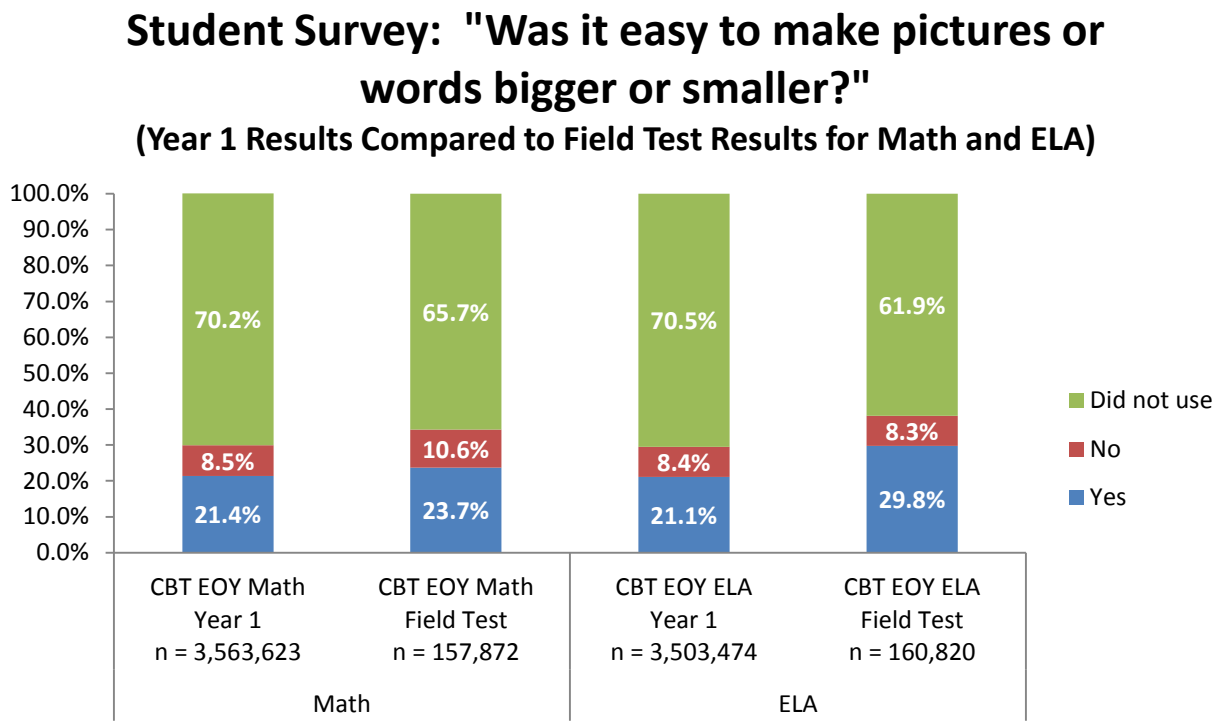

Figure 32. Percentage of students indicating it was easy to make pictures or words bigger or smaller.
Percentages are based on the number of valid (non-missing) responses.

The CBT version of the math Student Survey asked students two additional questions about tools specific to the mathematics assessments—the calculator and the equation editor. Students were asked to indicate, "Was it easy to use the calculator?" and "Was it easy to enter math symbols and numbers for your answers?" The findings for those survey items are presented in Figures 32 and 33, respectively. The results in Figure 33 show that only about 10% indicated that it was *not* easy to use the calculator tool (with 43% indicating they did not use the calculator[11]); this result occurred for both Year 1 and the field test. The results in Figure 34 show that 19% of students reported that it was *not* easy to enter symbols and numbers into the equation editor (with only 12% indicating they did not enter math symbols and numbers); this was a slight reduction from the field test (23% in the field test reported that it was *not* easy to enter math symbols and numbers).

[11] Student Survey results reflect responses from all grade levels. It should be noted that calculators are not used in Grades 3 – 5, which likely accounts for the high percentage of "did not use" responses. When the "did not use" responses are excluded from the analysis, the percentage of students indicating that it was easy to use the calculator was over 80%.

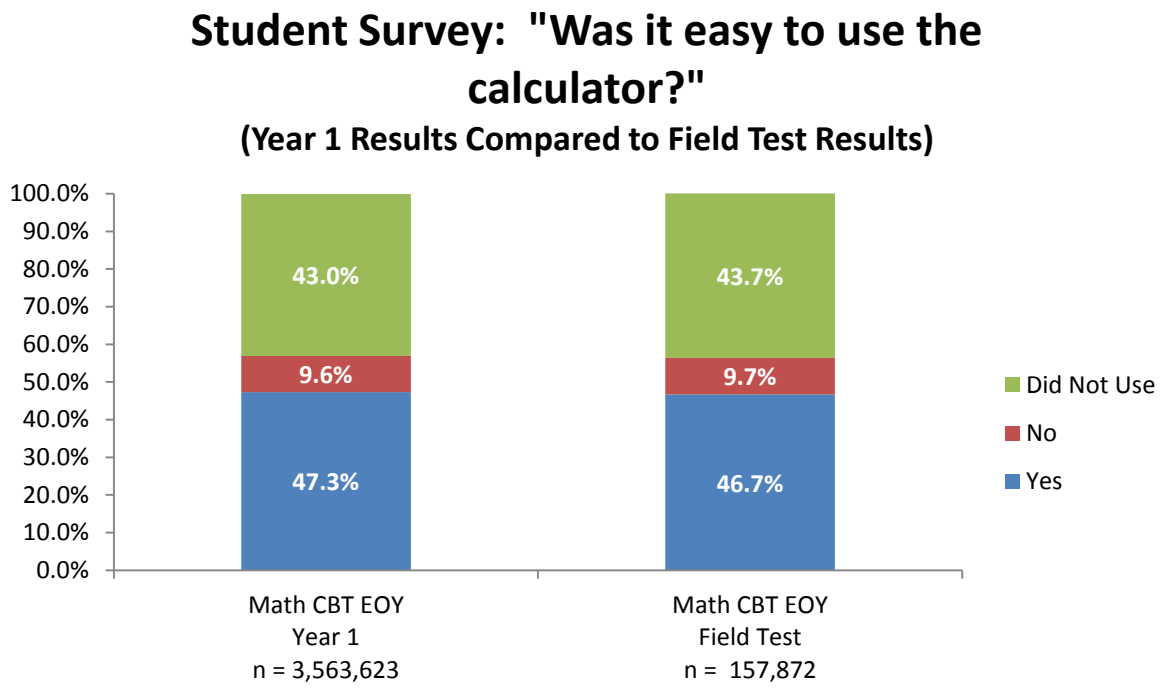

Figure 33. Percentage of students indicating that the calculator tool was easy to use (Math).
Percentages are based on the number of valid (non-missing) responses. Missing = 1,280.

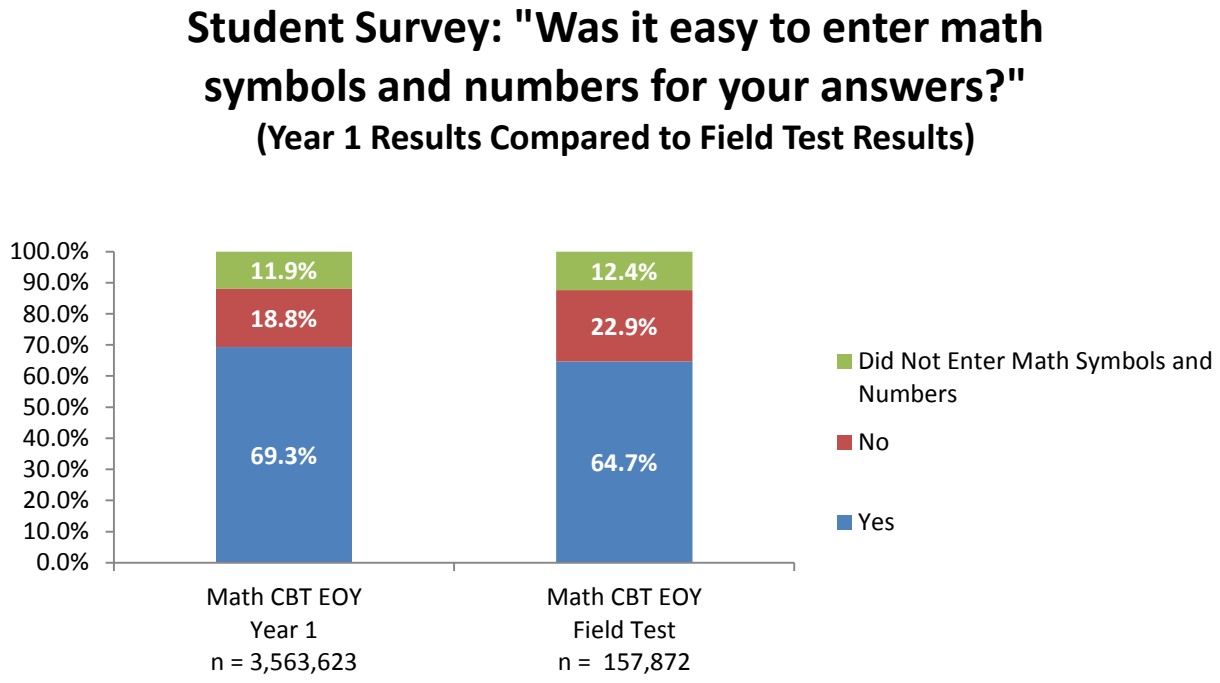

Figure 34. Percentage of students indicating whether it was easy to enter math symbols and numbers (Math).
Percentages are based on the number of valid (non-missing) responses. Missing = 1,280.

The CBT version of the ELA Student Survey asked students two additional questions specific to navigating within the ELA assessments. Students were asked to indicate, “Was it easy to move back and forth between passages or stories?” and “Was it easy to find information in the passages or stories when answering questions?” The findings for those survey items are presented in Figures 35 and 36, respectively. The results in Figure 35 show that the majority of students (79%) found it easy to move back and forth between passages/stories; the results from the field test were very similar. The results in Figure 36 also show that the majority of students (72%) found that it was easy to find information in the passages/stories, although a substantive percentage of students (23%) reported that “No” it was not easy to find information in the passages/stories; these results were similar to the results from the field test.

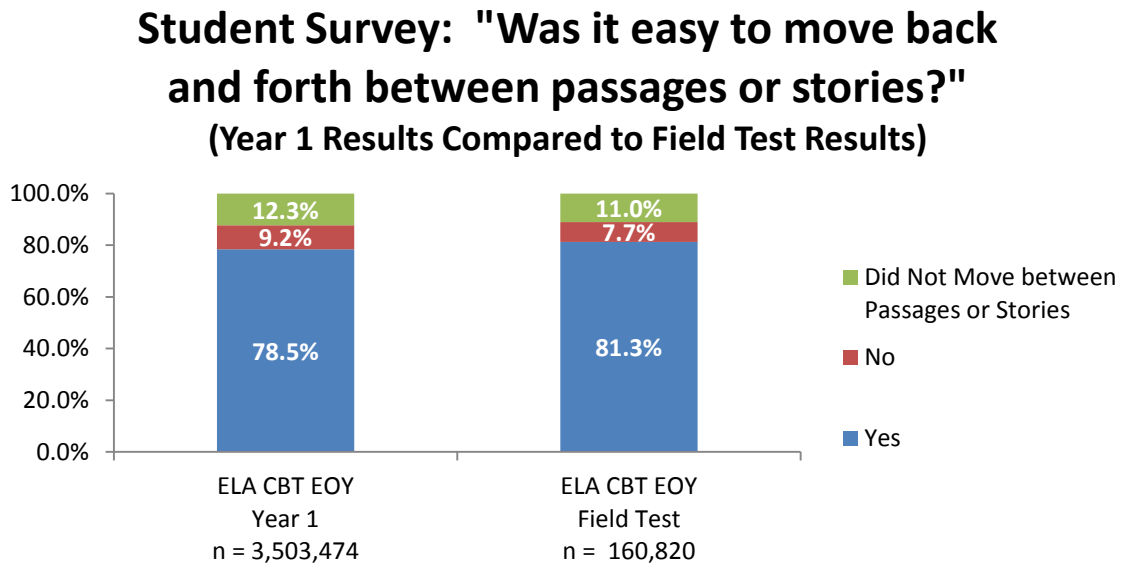

Figure 35. Percentage of students indicating whether it was easy to move back and forth between passages or stories (ELA).

Percentages are based on the number of valid (non-missing) responses.

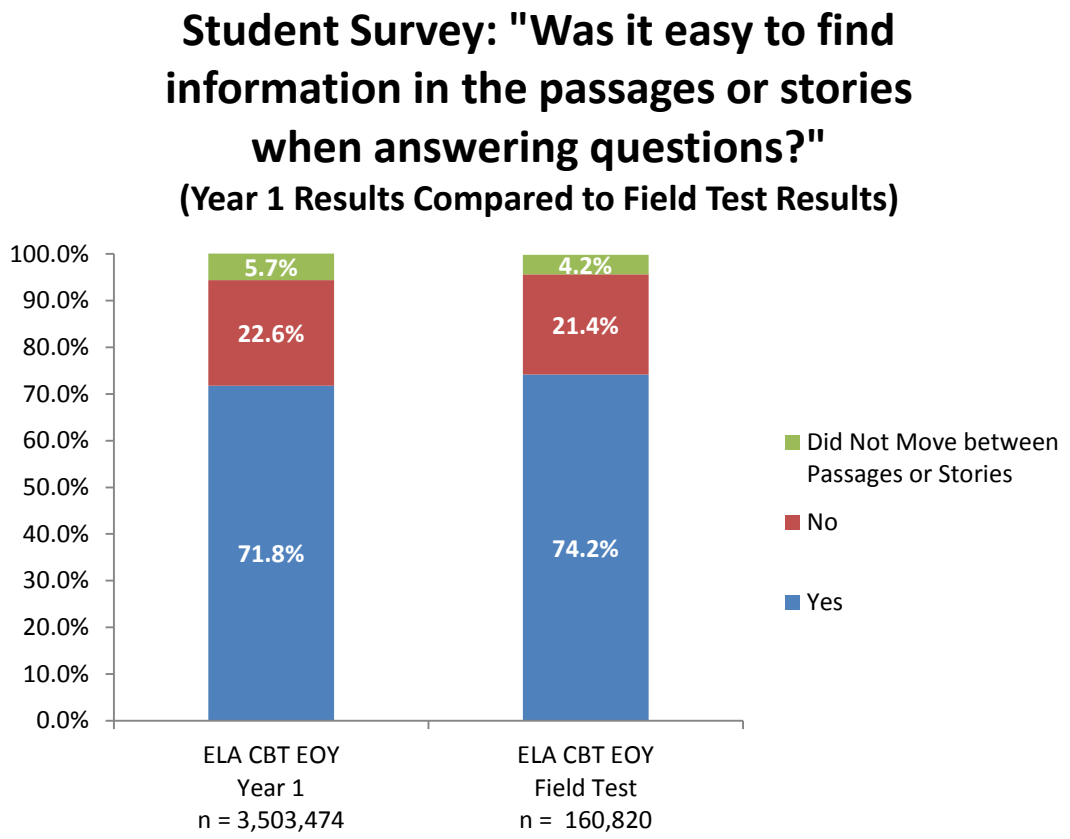

Figure 36. Percentage of students indicating whether it was easy to find information in passages or stories (ELA).

Percentages are based on the number of valid (non-missing) responses.

In summary, the findings from the Student Surveys and the School Visits Study indicate that there was a substantial decline in the occurrence of technology-related problems from the field test to Year 1, thereby indicating greater adherence to *Standard 6.4*. While the TA Survey results indicate that similar percentages of TAs in the field test and in Year 1 reported technology-related problems, the contextual information obtained from the School Visits Study indicates that the severity of those technology-related problems was much less in Year 1, with most issues resolved within a few minutes or less. These findings suggest that the actions PARCC took since the field test to help improve the local technology experience (e.g., additional infrastructure trials prior to test administration, enhanced guidance and documentation for the SystemCheck tool, updated training modules on conducting infrastructure trials and proctor caching, a new technology preparedness training module, and enhanced communication to states and districts regarding technology preparedness) were beneficial (see *PARCC Field Test: Lessons Learned,* PARCC, 2015). The Year 1 findings also suggest that a more targeted focus on reconciling issues with getting students logged on and with the system disconnecting would be useful for the TAs. Finally, regarding the tools and features of the CBTs, the findings from the

Student Survey indicate that very few students have problems with the highlighter tool, the magnification tool, the calculator tool (mathematics) and navigating between passages/stories (ELA), which was consistent with findings from the field test. The survey findings do indicate that there are substantive numbers of students who are not using these tools/features, which suggests that more emphasis should be placed on encouraging students to take advantage of these tools and features. The majority of students also reported that it was easy to enter math symbols and numbers; however, nearly 20% reported difficulty using this feature. Similarly, the majority of students reported that it was easy to find information in the passages/stories when answering questions; however, 23% reported difficulty with this. These findings suggest that students might benefit from additional practice with these features.

Findings for Research Question 7b: Are there any interruptions during the test administration related to students asking questions? What do students ask?

All three of the studies provide information to help inform Research Question 7b. First, the TA Surveys (CBT and PBT versions) asked TAs to identify the types of questions students asked during test administration. This survey item addresses Research Question 7b while also addressing the claim that "Students respond to items as intended" (claim 4). Confusion about the test and interruptions caused by students asking TAs questions during test administration are both factors that could threaten the veracity of this claim.

Figure 37 provides information on the prevalence of different types of questions students asked during CBT administrations. The most frequently asked questions, as indicated by TAs, were questions regarding technology-related problems and questions about exiting the test. Fifty-nine percent of TAs reported that students asked questions about technology-related problems and approximately half reported that students asked about how to exit the test. Figure 38 provides this same information for PBT administrations. Overall, the TAs administering PBTs reported fewer questions from students during test administration. The most frequently asked questions were questions regarding clarification on the instructions the TAs read to their students and questions about how to mark answers and enter responses; roughly one-third of TAs administering PBTs indicated that students asked these kinds of questions during test administration.

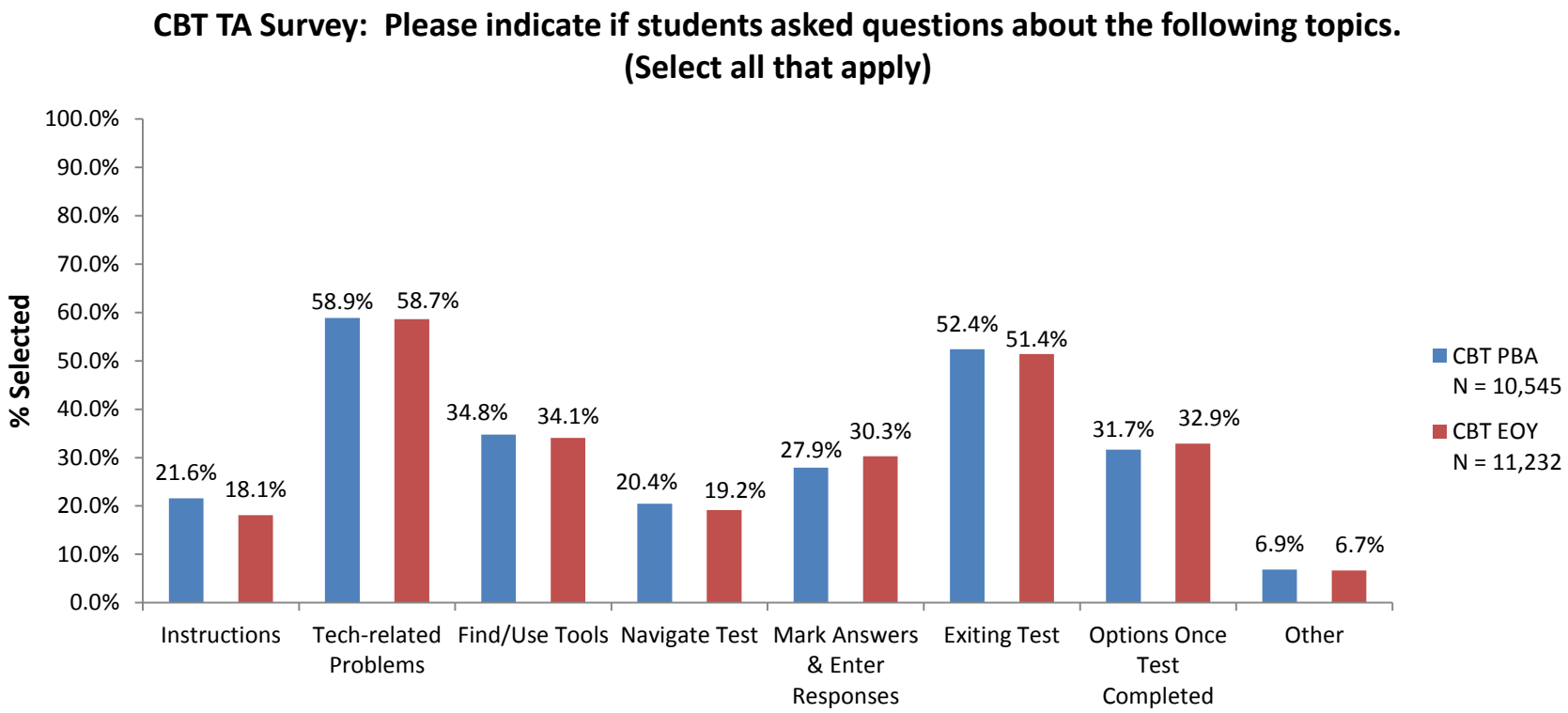

Figure 37. Percentage of TAs reporting students asked questions about various topics (CBTs).
Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses. These response options were identified from the themes in the open-ended comments provided by TAs on the field test survey. Consequently, no comparisons with the field test results are presented in this figure.

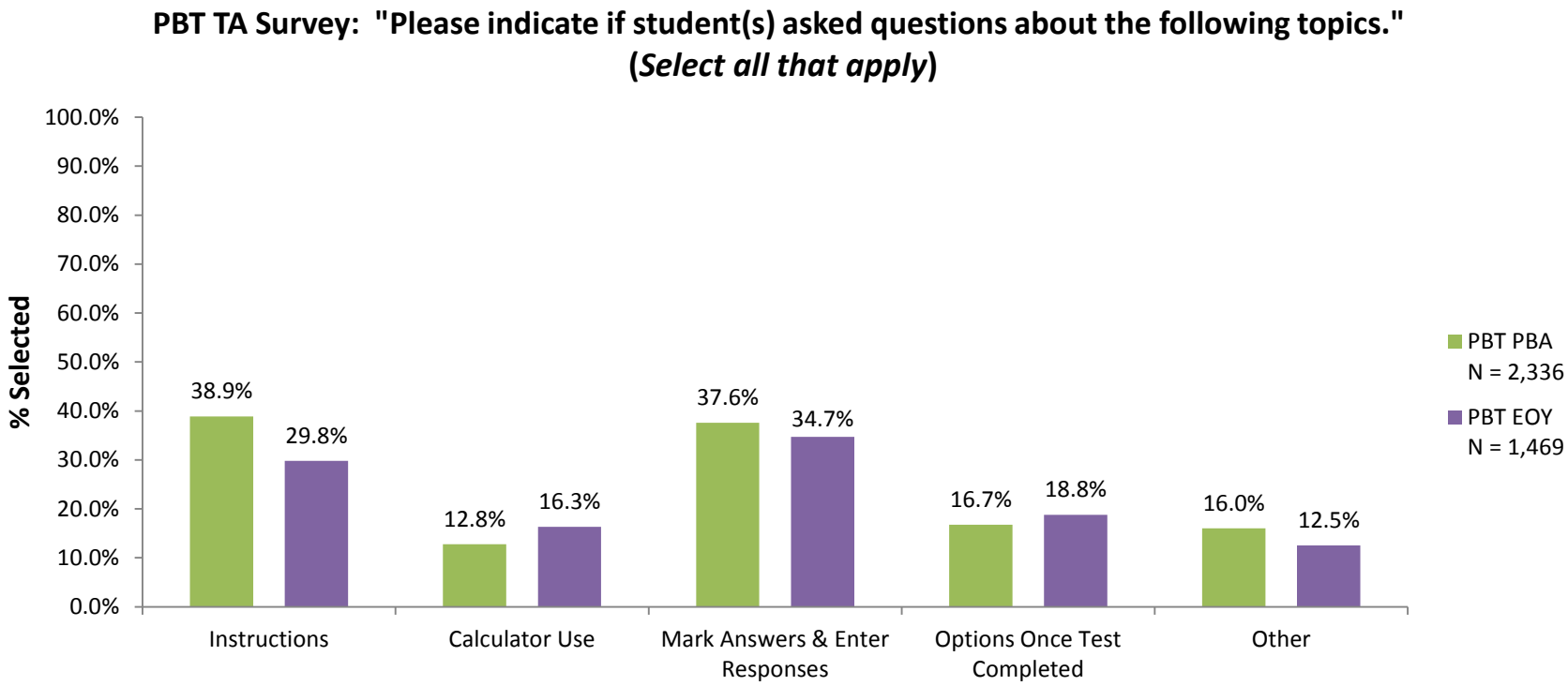

Figure 38. Percentage of TAs reporting students asked questions about various topics (PBTs).

Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses. These response options were identified from the themes in the open-ended comments provided by TAs on the field test survey. Consequently, no comparisons with the field test results are presented in this figure.

The observations conducted for the School Visits Study also provide an indication about interruptions during test administration related to students asking questions. In the observer checklist, there was one task that focused on how TAs handled student questions during test administration. Observers indicated that students asked questions in 81 of 109 sessions (74%) in 79 schools. Of the 81 sessions, TAs handled student questions appropriately in 75 sessions (93%), which suggest that potential disruptions caused by students asking questions were likely minimized. It should be noted that students asked questions in 72 of 91 CBT sessions (79%) while students asked questions in nine of 18 PBT sessions (50%). There were only six sessions of 81 (7%) where TAs received ratings of "Partially Met" or "Did Not Meet" on the observer checklist. An observer noted in one PBT session that the TA refused to listen to the student's question, stating to the student "I cannot answer any questions." Later, when asked about this exchange during the debriefing interview, the TA told the observer that she was informed in her training that TAs are not allowed to answer any questions students have about the test or even speak to them outside of reading the script. This TA expressed concern about jeopardizing her teaching license stating in the interview, "I'm not going to lose my license over this." In three other sessions (CBT), observers noted that students asked about tools or navigation and TAs provided some guidance in using tools and the navigational process in order to answer the test questions; however, they did not help the students answer the content of test question. In comparison to the field test, observers found that students asked questions in 59 of 77 sessions (77%) which is comparable to Year 1; however, TAs received ratings of "Partially Met" or Did Not Meet" in eight of the 59 sessions (14%), compared to 7% for Year 1.

There was also one interview question in the debriefing protocol addressing questions students asked during the test. In 34 of the 88 interviews TAs indicated a range of questions were asked by students regarding technology issues that include: scrolling within a document, using the highlighter tool, drag and drop items, and not realizing the text boxes will expand as they type more (see Table 14). There were only three interviews with TAs administering PBT that had any student questions. There were only a total of nine other student questions reported by TAs; those included questions about the purpose of the test, definitions of words or phrases, and topics unrelated to the test (e.g., "can I use the bathroom?").

Table 14. Student Questions from TA Interviews

Theme	Sources[a]	References[b]	Sample Responses
Navigational or how to enter responses	34	36	• Another student thought that an example number line was supposed to be used • Students are confused about how to enter the math symbols • A few students asked for clarification about the grid, across testing there have been a lot of confusion when questions have a graphic on one page and the question is on the following page[c] • plotting the points on a graph with 3 coordinates
Questions related to content	4	5	• What does statistic mean? • Student asked what natural logs are
Questions not related content	4	4	• Using bathroom or getting a break • Why are we taking this test?

[a]Indicates number of interviews providing information about that topic. [b]Indicates number of notes and/or comments made about that topic. [c]Response associated with the PBT.

In summary, findings from the TA Surveys and the School Visits Study indicate that students commonly asked TAs questions during test administration, most notably for the CBT administrations. Findings from the School Visits Study indicate that the amount of questions students asked were similar for the field test and Year 1. From the TA Survey (CBT version) for Year 1, we know that more than half of the TAs reported that students asked questions about technology-related problems and questions about how to exit the test. Findings from the observations of test administration indicate that, when students asked questions, the TAs handled those questions appropriately in nearly all instances, which suggests that interruptions caused by students asking questions were likely minimized. To help further reduce interruptions caused by students asking questions, these findings suggest that additional clarity for exiting the text (perhaps in the TAs' script and in the instructions presented on students' monitors) should be implemented. Furthermore, the suggestions presented under the results for Research Question 7a to enhance training and guidance for minimizing and handling problems associated with students logging on and exiting the test should also help to reduce student questions about technology-related topics. These actions should help to further strengthen adherence to *Standards 4.16, 6.4* and *6.5.*

Findings for Research Question 8: If any disruptions, interruptions, or other problems occurred, did the TAs deal with the issue appropriately and effectively?

Research Question 7 focused on interruptions during testing (which is relevant to the claim that students respond to items as intended). Research Question 8 focuses on how effectively/appropriately TAs handled those interruptions. Thus, Research Question 8 is most relevant to the claim that, "TAs are prepared to administer assessments as intended" (claim 1).

For this claim to be true, TAs must have the knowledge and skills to handle interruptions, whether those knowledge and skills come from background experience and/or from training (Research Question 8a).

As discussed in the results for several of the previous research questions, problems related to technology were the most common source of interruptions. Findings from the School Visits Study indicate that when technological difficulties occurred the TAs made appropriate attempts to resolve the issue by referring to their administration manuals, working with Technology Coordinators, and/or contacting the Help Desk. In no instance did the observers note that the TAs dealt with the technology problems inappropriately. Findings from the School Visits Study also indicate that when disruptive student behavior occurred, in the rare instances when it did occur, the TAs handled those instances appropriately. Finally, findings from the School Visits Study also indicate that when student questions arose, the TAs typically handled those questions appropriately. The results presented below under Research Question 8a shed light on whether TAs' preparedness for handling these types of occurrences was informed by background experience and/or training.

Findings for Research Question 8a: Were the TAs' actions informed by background experience, by training, or a combination of the two?

Regarding the potential for background experience to inform TAs' actions for handling disruptions/problems, the TA Survey (CBT version) asked the TAs to indicate whether they had ever administered a computer-based test to students (either at the state or district level). The results in Figure 39 indicate that roughly half of the TAs who responded to the CBT TA Survey had previously administered a computer-based test to students at the district or state level. Consequently, the potential for background experience (related to administering CBTs) to inform TAs' handling of disruptions and problems was relevant for roughly half of the TAs. This finding was comparable to the finding from the field test.

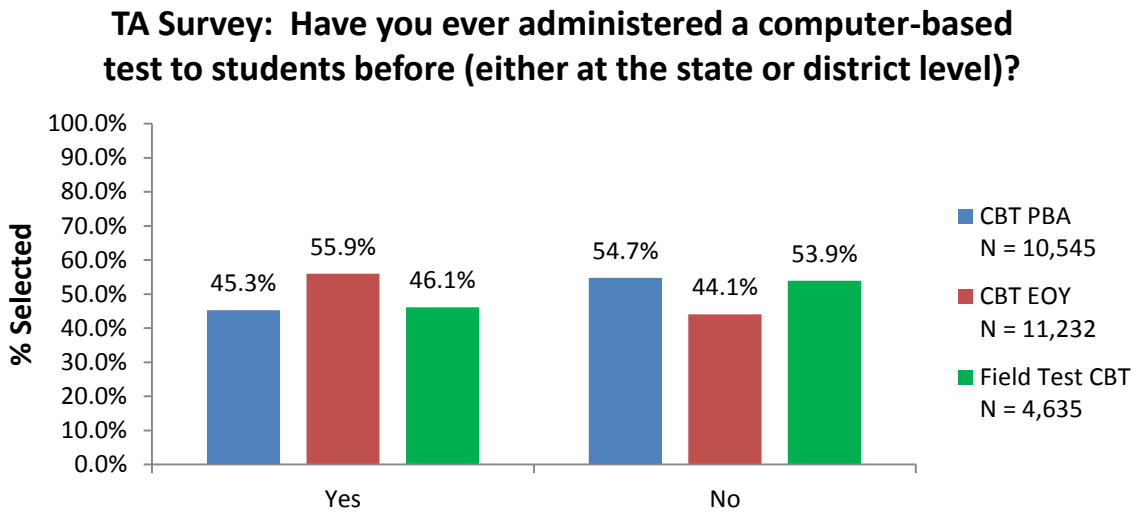

Figure 39. Percentage of TAs indicating if they previously administered a computer-based test.
Percentages based on valid (non-missing) responses.

With regard to the potential for training to inform TAs' actions for handling disruptions/problems, many of the results presented earlier under Research Question 2 are relevant for this research question as well. On average, approximately two-thirds of TAs administering CBTs reported that they found the PARCC on-line training modules to be effective in preparing them to administer the PARCC CBTs (see Figure 5 under Research Question 2). Similar results were found for TAs administering PBTs with approximately two-thirds of TAs reporting that the training modules on PearsonAccess^{Next}, Student Registration Import, and Student Readiness Resources effectively prepared them to administer the PARCC PBTs; even higher percentages of TAs administering PBTs (75% or more) indicated that the following PARCC training modules effectively prepared them to administer the PARCC PBTs: Introduction to PARCC, Accessibility Features & Accommodations, and Administration of Paper-Based Assessments (see Figure 7 under Research Question 2). Moreover, more than 80% of TAs administering CBTs reported that the PARCC tutorial helped them to better understand the tools and functionalities of the TestNav system (see Figure 10 under Research Question 2), and approximately 75% of TAs administering PBTs reported that the PARCC Paper-based Student Tutorials helped prepare them to administer the PARCC PBTs (See Figure 11). In addition, more than 80% of TAs (regardless of whether they administered CBTs or PBTs) indicated that the training they received from their school effectively prepared them to administer PARCC assessments (see Figure 8 under Research Question 2). Collectively, these results suggest that the TAs' actions during test administration were likely to have been informed by the training they received.

One area in which training may benefit from enhancements is with regard to training TAs to handle technology-related problems. Even though the majority of TAs (56%) indicated that the

PARCC online trainings prepared them to resolve basic problems related to technology (see Figure 6 under Research Question 2), this was a comparatively low percentage of respondents endorsing this survey item as compared to other survey items regarding the effectiveness of training. Moreover, only about 12% of the TAs reported that "no technology-related problems occurred" during their test administration experience, which underscores the importance of enhancing the training TAs receive on handling technology-related problems. As with the findings from the field test, the technology-related problems tended to be of a local nature rather than a system-wide nature. This indicates that training on technology-related issues should be sure to cover issues such as logging students in, dealing with firewall settings, adjusting computer settings, and so forth.

In summary, findings from the studies indicate that TAs' actions were informed by background experience and by training. For the most part, the TAs indicated that the various trainings they received were effective; however, there is evidence of a need for additional enhancements to training on handling local technology-related issues such as, logging students on and handling system disconnects so as to further minimize disruptions during testing (and thereby further strengthen adherence to *Standards 6.4* and *6.5*). It is important to note that PARCC has added a section to the manuals to provide additional emphasis and guidance on the importance of conducting an infrastructure trial to reduce the frequency of technology related problems.

Findings for Research Question 8b: Would a different approach to handling the disruptions or problems that occurred during test administration been more effective?

The results reported under Research Question 7b indicate that students often had questions (more often for CBT than PBT) during test administration; as reported under Research Question 2, results from the observation study indicate that in most instances the TAs handled the students' questions appropriately and effectively. There were a few occasions, however, where observers noted that the TAs provided too much assistance on navigating through the assessment and one instance where the TA indicated that TAs were not to talk to students during testing (including responding to student questions). Also, when asked about suggestions for improving the TA Manual (see results for Research Question 1) one suggestion was to provide additional guidance in the TA Manual on how to respond to student questions. These findings suggest that TAs could be more effective in handling disruptions caused by students asking questions if they had additional guidance on how to respond to student questions.

Finally, with regard to handling technology-related problems, during the School Visits Study observers found that several schools reduced the amount of staff resources needed to support CBT administration by conducting multiple CBT administrations in classrooms located in a common wing of the building. With this arrangement they were able to set-up and monitor testing through one administration computer located in the common hallway; the test

administration computer was staffed by school and/or district technology specialists. When TAs experienced technology-related problems, such as log on or connectivity issues, they could go to their classroom door and support was readily available. This is an alternative approach that some schools devised for handling technology-related problems, which appeared to be very effective while also minimizing staff resources.

Findings for Research Question 9: Was security of test materials maintained at all times?

There is considerable overlap between Research Question 9 and Research Question 6, "Are there any apparent attempts to record or copy test materials including the test questions by students or others?" Findings that are pertinent to test security were discussed within the results section for Research Question 6. Consequently, relevant findings for Research Question 9 are reported in the results section for Research Question 6.

Findings for Research Question 10: Did the test administration create minimal disruption to the school and staff?

For the testing system to be effective, it must not be overly burdensome on the schools' resources. If test administration becomes overly burdensome, then it might not be feasible for schools to have sufficient resources and supports to administer the assessments (claim 2). During the debriefing interviews, the TAs were specifically asked if they felt administering PARCC required more time and resources than previous state tests. In over two-thirds of the interviews (59 of 88), the TAs responded, "yes." TA comments typically indicated that the number of staff hours required for preparation was greater than what was required for the prior state tests. TAs also commonly stated that the amount of time computer labs were available for students' other schoolwork decreased, especially in light of the PBA testing *and* the EOY testing window. In many schools, there were not enough computers/tablets for all grades to test at the same time (e.g., during the same week). Consequently, the PBA and EOY testing windows had to be stretched out over longer periods of time to allow all grades to complete testing on computers/devices. The two testing windows combined with having to extend testing over longer periods of time to ensure all students had a computer/tablet resulted in the "PARCC schedule being more disruptive to the curriculum schedule." Also, based on observer notes and responses during interviews, it was evident that at least one additional person was needed to support the TA during testing, particularly for CBT administrations. Although observers did not specifically track the number of school staff involved in each observed session, checklist entries in over half of the observations indicated that more than one person was involved in the test session. These findings suggest that test administration created disruptions that were more than "minimal." However, when compared to the TA Study results from the field test the results from the Year 1 study indicate that many of the concerns and issues from the field test were successfully addressed by the actions PARCC took after the

field test (see *PARCC Field Test: Lessons Learned,* PARCC, 2015). Consequently, the burden placed on schools' resources appears to be somewhat less in Year 1 than in the field test.

Summary and Recommendations

The overall summary and recommendations, based on the findings for the research questions, are discussed in this section by each claim in the TOA under the Administration phase.

Claim 1: TAs are Prepared to Administer the Assessments as Intended

In order for this claim to be true important assumptions that must be verified are: (a) TAs are trained to administer the assessments and (b) training is effective. Findings related to several of the research questions provide evidence for these assumptions and for the overall claim of preparedness.

The research questions that most directly provide evidence for this claim and its assumptions are:

- Research Question 2: To what degree do the TAs follow the protocols and instructions? (*addresses Standards 6.1 and 6.2*)
- Research Question 6: Are there any apparent attempts to record or copy test materials including the test questions by students or others? (*addresses Standards 6.6 and 6.7*)
- Research Question 8: If any disruptions, interruptions, or other problems occurred, did the test administrators deal with the issue appropriately and effectively? (*addresses Standards 6.1 and 6.3*)
    - Research Question 8a: Were the TAs' actions informed by training, by background experience, or a combination of the two? (*addresses Standard 6.1*)
    - Research Question 8b: Would a different approach have been more effective?
- Research Question 9: Was security of test materials maintained at all times? (*addresses Standards 6.6 and 6.7*)

Test administrators' preparedness to administer assessments as intended is directly related to the training they received. The investigations of the research questions and their underlying assumptions indicate that that the majority of TAs administering CBTs and PBTs reported that the PARCC online trainings, particularly the Introduction to PARCC module, effectively prepared them to administer the PARCC assessments. Even higher percentages of TAs reported that the training they received from their school effectively prepared them to administer PARCC assessments. In addition, most TAs reported that they gained additional familiarity with PARCC content via sample items, practice tests, and the PARCC tutorial on TestNav (CBT only) prior to test administration. Findings from the School Visits Study indicate that TAs followed standardized procedures during test administration with very few exceptions (i.e., using the

timing box), and that test security was maintained at all times with no apparent attempts to record or copy test materials. The close adherence to the standardized procedures also speaks to the effectiveness of the training and training materials provided to TAs. A notable improvement from the field test is that in only one of the 109 observed test sessions did the TA deviate from the test administration script. This is a substantial improvement from the field test study in which observers noted that in almost half of the observed sessions TAs did not follow the script in the TA Manual verbatim. This notable improvement is likely attributable to the improvements made to the PARCC trainings and to the TA Manual since the field test.

With regard to the effectiveness of the training and training material on administering AFAs, the vast majority of TAs reported reading the AFA Manual prior to test administration; this was a notable increase from the field test. Moreover, the majority of TAs agreed that the AFA trainings and materials effectively prepared them to administer AFAs. Observer ratings from the observed accommodation sessions also indicate that in nearly all of the observed accommodation sessions the TAs performed the tasks as intended.

There were some areas, related to training and training materials, where the study findings indicate that additional improvements may be beneficial. First, just over half of the TAs indicated that the PARCC trainings/materials effectively prepared them to handle basic technology-related problems (CBT). While still a majority, this result compares less favorably than other findings regarding the effectiveness of trainings/materials (PARCC has made the following changes to all manuals for the 2015 Fall Block administration with additional improvements planned for the Spring 2016 administration: the TC manual was reduced by 46 pages, the TA manual was reduce by more than half the pages, and restructured the manuals to tasks before, during, and after testing to better align with local practices). Second, only about one-third of TAs administering PBTs indicated that they worked with the PARCC paper-based student tutorials prior to test administration. Third, most TAs were unaware of whether the AFAs that were pre-identified in the PNP were made available to students during a practice session, and most were also unaware as to whether changes were made to a student's PNP or AFAs during test administration. Just over a third of TAs reported that AFAs that were pre-identified in the PNP were made available to students during a practice session. Finally, while TAs were generally observed handling student questions appropriately and effectively, there was some evidence to indicate that additional training and guidance on how to handle student questions would be beneficial.

In summary, the majority of the evidence from the research studies provides support for Claim 1—*TAs are prepared to administer assessments as intended.* Notable improvements were evidence from the field test to Year 1, particularly with the percentage of TAs following the scripts in their TA Manual. This improvement is likely attributable to the actions PARCC took

since the field test to improve the clarity of the TA Manual and to improve the effectiveness of the TA training, including the addition of more opportunity to interact with PARCC content prior to test administration.

Even though the majority of evidence indicates support for Claim 1, there are findings to suggest that the support for Claim 1 could be further strengthened by taking into consideration the following recommendations:

- Ensure that schools are well-informed in all aspects of PARCC test administration well in advance of the testing windows. The type of training that received the highest effectiveness rating was the training provided at the school-level. This underscores the importance of ensuring that schools have all the resources and materials they need to effectively train their staff well in advance of the testing window. This includes ensuring that the finalized TA Manuals are available in a timely manner.
- More emphasis should be placed on ensuring that all TAs complete the PARCC tutorials prior to test administration, particularly for TAs administering PBTs. Of those who completed the tutorials, the vast majority agreed that the tutorials helped better prepare them to administer the PARCC assessments. Nonetheless, approximately one-third of TAs administering CBTs indicated that they did not review the PARCC tutorials prior to test administration and two-thirds of TAs administering PBTs indicated that they did not review the PARCC tutorials prior to test administration (*it should be noted that PARCC has placed additional emphasis on the tutorials and practice test sections in the manual to further emphasize the importance of administering these to students prior to testing. PARCC has also created a pre-administration guidance document that has a whole section devoted to instructional supports and to encourage the use of tutorials and practice tests*).
- Enhance the training on handling basic technology-related problems. Only slightly more than half of the TAs agreed that the PARCC online trainings effectively prepared them to resolve basic problems related to technology during test administration. Particular attention should be given to handling local technology-related issues with logging students onto the assessment and with students getting kicked off the assessment as these were the two most frequently reported types of technology-related problems encountered during test administration. One area in which PARCC may wish to focus is on increasing the number of TAs who participate in the technology-oriented training modules. Between 35% - 40% of the TAs reported that the following modules were “not applicable” to them: Personal Needs Profile (PNP) Training, Proctor Caching & TestNav Configuration Training, Student Registration Import Training, and Technology “Readiness” for Schools and Districts Training. Perhaps these trainings are relevant to more TAs than those who actually completed them, particularly if any of these trainings

cover how to handle technology-related problems (*it should be noted that PARCC has changed the PearsonAccess^{next} module to be broken into smaller, task-based modules. The aim of this change is that TAs will be able to view the shorter modules just prior to testing to refresh their memory on basic technology functions for testing. PARCC also added a new troubleshooting computer-based errors section to the manuals with direct links to common error messages to help provide transparency and a direct link to support information*).

- Provide additional guidance to TAs on how to handle student questions that arise during testing. In particular, provide guidance on how to handle student questions on navigating through the test.
- Rethink the guidance provided in the TA Manual for the use of the timing box during test administration. Many TAs observed in the field test Study and in the Year 1 Study did not use the timing box exactly as it is described in the TA Manual. For example, many TAs provided verbal updates on time remaining as opposed to writing the time remaining in a timing box. Also, many TAs provided more frequent updates on time remaining than what is specified in the TA Manual. If flexibility in managing time is acceptable, consider revising the TA Manual to indicate that the timing box is one example of how to manage the time during the test session. Otherwise, if flexibility in managing time is not desirable, then consider providing more definitive instructions in the TA Manual on how time must be managed via use of a timing box (*it should be noted that PARCC has added an improved materials/timing box to the script to add clarity for tracking time during testing*).
- Improve the process for identifying AFAs in advance via the Personal Needs Profile (PNP) so that it is clearer and easier to follow. Also, the majority of TAs responded either "no" or "not sure" when asked whether all the AFAs identified in the PNP were made available to students during a practice session. Consequently, PARCC may want to incorporate some additional scrutiny to ensure that students who need AFAs are indeed given the opportunity to practice with those AFAs prior to actual test administration (*It should be noted that PARCC has changed the PNP process to be identified during the student registration process so that this information is gathered earlier. Additionally, the PARCC Accessibility Features and Accommodations Manual has been revised to include a whole section devoted to the tasks to be completed before, during, and after testing for each accommodation. This revision more clearly outlines the tasks that need to be completed related to accommodations. PARCC has also placed additional emphasis on the tutorials and practice test sections in the manual to further emphasize the importance of administering these to students prior to testing. PARCC also created a pre-administration guidance document that has a whole section devoted to instructional supports and to encourage the use of tutorials and practice tests*.)

Claim 2: TAs Have the Resources and Supports to Administer the Assessments

For this claim to be true important assumptions that must be met are: (a) resources and supports must be clear, sufficiently detailed, and easy to follow, and (b) resources and supports must not be overly burdensome for TAs to use and apply.

The research questions that most directly provide evidence for this claim and its assumptions are:

- Research Question 1: To what degree do the test administrators (TAs) find the instructions clear, sufficiently detailed, and easy to follow? (*addresses Standard 4.15*)
- Research Question 10: Did the test administration create minimal disruption to the school and staff?

The instructions in the TA Manual serve as the TAs' primary resource for administering the assessments. The vast majority of TAs for Year 1 (over 80%) agreed that the policies and procedures in the TA Manual were easy for them to understand. This is an increase from the field test where 71% of CBT administrators and 67% of PBT administrators agreed that the policies and procedures in the TA Manual were easy for them to understand. Similarly, the vast majority of TAs for Year 1 (85% or more) agreed that the instructions (including the scripts) in the TA Manual were easy for them to implement, whereas findings from the field test indicated that less than two-thirds of TAs (55% - 63% for PBT and CBT, respectively) agreed that the instructions in the TA Manual were easy for them to implement. Qualitative feedback obtained from TAs in Year 1 also indicated notable improvements since the field test in the usefulness of the TA Manual and, in particular, the usefulness of the scripts. There were still some suggestions from TAs to further streamline the TA Manual and the scripts and suggestions to further clarify the instructions for navigating between sessions and for ending sessions and exiting the test; however, these suggestions were much less prevalent in Year 1 than in the field test.

For the testing system to be effective, it must not be overly burdensome on the schools' resources. If test administration becomes overly burdensome, then it might not be feasible for schools to have sufficient resources and supports to administer the assessments. While there were fewer requests to streamline the materials (notably the TA Manual) in Year 1 than in the field test, many (over two-thirds) stated that the administration of the PARCC assessment required more time and resources to administer than previous state tests. The TAs and TCs most commonly indicated that the number of staff hours required for preparation was greater for the administration of the PARCC assessment. The TAs and TCs also commonly stated that PARCC was more disruptive to the curriculum schedule than prior state tests. The TAs and TCs

explained that this was due having two testing windows (one for PBA and one for EOY) and that each testing window was stretched out over a longer period of time because there were not enough devices for all students to test at the same time.

In summary, the evidence collected from the studies indicates that the TA Manual, which is the primary resource for administering the PARCC assessments, is clear, sufficiently detailed, and easy to implement. These results suggest that the actions implemented by PARCC since field test to improve the TA Manual such as, shortening the TA Manual by reducing redundancies, adding grade band scripts, adding checklists of tasks, adding additional graphics and icons to increase user understanding, clarifying terminology, etc. (see *PARCC Field Test: Lessons Learned*, PARCC, 2015) were beneficial and favorably received by the TAs. This evidence helps support the claim that TAs have the resources and supports to administer PARCC. Other evidence, however, indicates that test administration often creates more than minimal disruption to the school and staff, most notably with regard to the amount staff hours required to prepare for test administration and with regard to the amount of time required for testing. Consequently, the collective set of evidence indicates mixed support for Claim 2.

The primary recommendation to help further strengthen support for Claim 2 is one that PARCC has already implemented, which is to reduce the amount of time required for testing. This is being accomplished by eliminating the two testing windows, one for PBA and one for EOY. Moving to a single testing window should help reduce the staff resources and time resources required for the PARCC assessment, and thereby help to minimize the disruption caused by test administration.

Claim 3: Technology Improves and Facilitates the Assessment Experience

For this claim to be true an important assumption that must be met is that the technology must work as intended. If the technology does not work as intended—for example, if there are functionality problems and/or delays in its application, then the veracity of this claim is threatened.

The evidence for this claim comes directly from Research Question 7a:

- Are there any technology-related problems during test administration? *(addresses Standards 6.3 and 6.4)*

Findings from the TA Survey indicate that most TAs reported that they encountered one or more problems related to technology during the test administration. These findings were similar to the findings from the field test. However, the findings from the School Visits Study provide additional context. Findings from the school visits in Year 1 indicate that fewer problems with technology were observed during test administration and that when problems

did occur the severity of the problems was much less than those observed during the field test. Observers noted that most problems were resolved within a couple of minutes. Consequently, even though the TA Survey results indicate that the prevalence of technology-related problems were similar in the field test and in Year 1, the additional contextual information obtained from the school visits indicate that the magnitude and duration of those technology-related problems were much less for Year 1.

Students reported encountering fewer problems with the technology than TAs. Students also reported substantially fewer problems with the technology in Year 1 than in the field test. Reports of technology-related problems might have been lower for students than for TAs because students were asked about problems that occurred during their own individual test, whereas TAs were asked about problems across all students in their administration session(s). Another reason that students may have reported fewer technology-related problems than TAs is that the students may have been less aware of the problems given that the problems were typically minor and resolved within a couple minutes.

The TAs reported that they most frequently encountered problems with logging into the assessment and with the system disconnecting/logging off. Students also reported "difficulty logging on" as one of the most frequently encountered technology-related problems. Similar percentages of students also reported difficulties with dragging or moving objects on the screen. With regard to the tools and features of the CBTs, very few students reported having problems with the highlighter tool, the magnification tool, the calculator tool (mathematics) and navigating between passages/stories (ELA), which was consistent with findings from the field test. The findings do indicate that there are substantive numbers of students who are not using these tools/features. The majority of students also reported that it was easy to enter math symbols and numbers, although nearly a fifth of the students reported difficulty using this feature. Similarly, the majority of students reported that it was easy to find information in the passages/stories when answering questions on the ELA assessment, although nearly a fourth reported difficulty with this.

Overall, the findings suggest that the actions PARCC took since the field test to help improve the local technology experience (e.g., additional infrastructure trials prior to test administration, enhanced guidance and documentation for the SystemCheck tool, updated training modules on conducting infrastructure trials and proctor caching, a new technology preparedness training module, and enhanced communication to states and districts regarding technology preparedness) were beneficial (see *PARCC Field Test: Lessons Learned,* PARCC, 2015), and that there is stronger support for Claim 3 in Year 1 than in the field test.

Recommendations for further strengthening support for Claim 3 include:

- Provide a more targeted focus on reconciling local technology-related issues with getting students logged on and with the system disconnecting. (*It is important to note that PARCC has added a section to the manuals to provide additional emphasis and guidance on the importance of conducting an infrastructure trial to reduce the frequency of technology related problems.*)
- Place more emphasis on ensuring that students take advantage of the tools embedded within the CBTs given that substantive numbers of students indicated that they did not use these tools and features.
- Provide students with additional practice on entering math symbols and numbers prior to test administration. (*It should be noted that PARCC has developed a standalone equation editor for teachers to use with students for advanced practice.)*
- Provide students with additional practice on finding information in passages/stories on the ELA assessment prior to test administration.

Claim 4: Students Respond to Items as Intended

Finally, for this claim to be true, several assumptions must be verified. First, for students to respond to items as intended, they must understand the directions read by the test administrator (i.e., the script). Second, students must also understand the directions they read for the questions on the test. If the students do not understand the directions read by the TA and/or if they are confused by the directions they read on the test, then they may not respond to the items as intended. Third, to respond to items as intended, students need to have some engagement with the assessment. If they are not engaged or if they have a low level of engagement, then they might not sufficiently attend to items so as to respond to them as intended. Many factors can negatively impact student engagement, such as (a) too little time to complete the assessment, (b) lack of familiarity with the content being assessed, (c) lack of familiarity with the mode of assessment, (d) distractions caused by unauthorized visitors, (e) distractions caused disruptive student behavior, and (f) technological problems. These are some of the factors investigated in this study.

The research questions that provide evidence for Claim 4 and its assumptions are:

- Research Question 3: Do the students appear to understand the instructions provided to them? (*addresses Standards 4.16 and 6.5*)
- Research Question 4: To what degree are students engaged in taking the test? (*addresses Standards 4.16, 6.3, 6.4, and 6.5*)
- Research Question 5: Is there any disruptive student behavior during the session? (*addresses Standard 6.4*)
- Research Question 7: Are there any interruptions during the session? (*addresses Standards 6.3 and 6.4*)

- Research Question 7a: Are there any technology-related problems during test administration?
- Research Question 7b: What type of questions, if any, do students ask during the test administration? (*also relevant to Standards 4.16 and 6.5*)

Findings from the Student Surveys show that the vast majority of students report that they understood the directions (i.e., script) read by their TA. This finding was similar to the finding from the field test. Converging evidence was found from the TA Survey results. The vast majority of TAs agreed that students appeared to understand the instructions they read to them and that the instructions covered all of the information necessary to take the test. These TA Survey results reflect a notable increase from the field test to Year 1, which suggests that the improvements that PARCC made to the script in the TA Manual since the field test were beneficial. This evidence helps to verify the assumption that students understand the directions read by the TA.

With regard to students' understanding of the *directions for the questions on the test*, the Student Survey results indicate that the majority of students (approximately half) reported that it was hard to understand the directions for the questions on the test "some of the time" and nearly a third of students taking the mathematics assessments and nearly a fourth of students taking the ELA assessments indicated that it was hard to understand the directions for the questions on the test "most or almost all of the time." These findings were similar for the field test. This evidence indicates a lack of support for the assumption that students understand the directions for the questions on the test. Per *Standards 4.16* and *6.5*, students are more likely to understand test instructions if they have had practice with the items and with the mode of testing (e.g., computer-administered) prior to actual testing. Most students reported practicing on a computer/tablet one or more times prior to actual testing, which was an increase from the field test. The TAs administering CBTs indicated that almost two-thirds of the students practiced with sample items and a practice test prior to actual testing. However, only about half of the students completed the tutorial prior to taking the computer-based assessment (as reported by TAs). With regard to the PBTs, the TA Survey results indicate that very few students completed the tutorial directed towards paper-based assessments.

In terms of student engagement, the findings from the research studies provide information on several potential factors that might negatively impact student engagement. Findings reveal that the TAs effectively kept distractions such as, outside visitors and disruptive student behaviors to a minimum. The findings also indicate that technology-related problems were not likely to be a major disruption, as they were in the field test, given that most issues were minor in nature and resolved within a couple minutes. The majority of TAs administering CBTs reported that students asked questions about problems with technology and about how to exit the test,

although the findings from the School Visit Study indicate that in nearly all instances the TAs handled the student questions appropriately, thereby suggesting that distractions caused by students asking questions were minimized.

Other factors that might negatively impact student engagement include familiarity with the test content, familiarity with the mode of assessment, and difficulty of the test. The findings indicate that most of the questions on the test covered topics students had already learned about in school, and most students were very familiar with the mode of assessment (CBT) and they preferred that mode of assessment. Moreover, feedback obtained from the TAs in the debriefing interviews and comments made by observers on the observation checklist indicated moderate to high levels of student engagement.

In summary, the majority of the evidence indicates reasonable support for Claim 4—*Students respond to items as intended.* There were only two factors that were investigated for which the evidence threatens the veracity of the claim that students respond to items as intended. First, most students reported that it was hard to understand the directions for the questions on the test; if students do not understand the directions, then they might not be responding to items as intended. Second, test difficulty emerged as a potential factor that might have negatively impacted student engagement, particularly for the mathematics assessments. Most students reported that the mathematics assessments were harder than their school work.

Recommendations for further strengthening support for Claim 4 include:

- Improve the directions on the test, such as simplifying the instructions for answering the questions, to enhance students' understanding. Findings indicated that many students asked questions about where to mark and enter their responses and how to find and use tools, which suggests that these might be aspects of instructions that may benefit from additional clarification. If students are better able to understand the instructions on the test, then the test might not seem so difficult to students.
- Encourage greater participation in opportunities to practice with PARCC content prior to test administration, particularly completion of the student tutorials, as results indicate that fewer students practiced with tutorials than with sample items and practice tests. Greater familiarity to the PARCC content prior to test administration may also help students better understand the instructions on the test.

Finally, it is worth noting that that the primary factors that emerged in the field test as impediments to student engagement—overly lengthy and redundant test instructions read by the TAs and delays caused by technology-related problems—appeared to have been ameliorated since the field test, as these did not emerge as significant impediments to student engagement in Year 1.

Conclusion

The findings presented in this report do not provide an exhaustive investigation of the validity evidence for the PARCC test administration. Consequently, the evidence presented here should not be taken as the final word on the PARCC test administration. Nonetheless, the findings presented in this report do represent the current validity argument for the PARCC test administration. Overall, the findings from the Test Administration Study for Year 1 represent notable improvements in the validity evidence collected from the field test. In particular, the findings indicate stronger support for all four of the test administration claims in the Theory of Action:

- Claim 1: TAs are prepared to administer the assessments as intended.
- Claim 2: TAs have the resources and supports to administer the assessments.
- Claim 3: Technology improves and facilitates the assessment experience.
- Claim 4: Students respond to items as intended.

The primary threats to the veracity of these claims, as identified through this Test Administration Study, are:

- Continued problems of a local nature with logging students on and with students getting kicked-off the system.
- The amount of time and staff required for administering PARCC assessments has been overly burdensome on schools' resources.
- Many students are having difficulty understanding the directions on the test for answering test questions.

These concerns should be addressed for future operational assessments, as threats to the veracity of the test administration claims may undermine the validity of subsequent goals in the PARCC theory of action (i.e., valid scoring, reporting and use of test scores). Several recommendations for addressing these threats have been offered for consideration.

Finally, it should be noted that a memo of preliminary findings from this Test Administration Study was submitted to PARCC leadership in June 2015. As a result of the findings and suggestions provided in this preliminary memo, PARCC has already made changes to the manuals that will be used for the 2nd operational year. Those improvements made by PARCC include:

1. The manuals were streamlined, reducing a great deal of redundancy.
2. The Fall/Winter Test Coordinator Manual was reduced by 46 pages compared to last year.
3. The Test Administrator Manuals were reduced by more than half the pages compared to the 2015 Spring Administration (now 59-64 pages).
4. The structure of the manuals was changed to better align to local practices. These changes include restructuring the sections in the TCM and TAM to tasks before, during, and after testing and separating the CBT and PBT sections in the TCM.
5. Additional content was added to further clarify procedures around using PearsonAccess^{next} and after testing tasks.
6. Policies were analyzed and adjusted accordingly to feedback from the field, including increasing the testing multiple classrooms flexibility and no longer requiring students to write names on scratch paper.
7. PARCC is already working on the spring manuals, which will include great reductions to the student directions and the administrator scripts.

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Appendix A – Observation Checklist for Test Administration Site Visits

CBT Administrations

1	PARCC Operational EOY Computer-Based Test (CBT) Observation Checklist				
2	**Date:**				
3	**School:**		Status Codes: 1= Met 2 = Partially Met 3 = Did Not Met 4 = Not Observed 5 = Not Applicable	**Session Time:** (ex: 0900, 1530)	
4	**TA/TC:**			**Subject:**	
5	**City:**			**Grade:**	
6	**State:**			**Observer:**	
7	**Step**	**Task**	**Status**	**Comments/Notes specific to line item**	
8	Pre-Assessment Activities				
9	1	Prepare testing room by providing adequate space to work, seating every other seat, back to back, semicircle, or use partition/curtain/privacy screen)			
10	2	Prepare Test Administrator computer in location with students to be able to better manage and monitor test. Rate 2-partial if outside testing room.			
11	3	Prepare student computers for testing. (close browsers, programs, any programs that automatically launch (antivirus, updates), launch TestNav)			
12	4	Ensure prohibited materials are not visible. (posters, maps, number lines, word lists, formulas, definitions) Rate 1 if visible and not test related.			
13	5	TA confirms student roster matches correct Student Authorization Tickets and seal codes for this session.			
14	6	Draw timing box on the board, as in manual, but wait to fill it in until reading script (rate 2 if no wait). (see Timing box & Session times tab)			
15	7	Allow authorized visitors only, such as PARCC staff, state/local/school assessment monitors. (List title of non-school visitor, ask TA if needed)			
16	Observer Cues (for notes): Security breach - TA or student takes photo of computer screen (immediately text Richard). Also, if TA leaves room unattended while materials are not secure, coaches students or explains items, reads items/passages text Richard from car.				
17	Notes:				
18					

20	**Administer Assessment Activities (complete for both regular and accommodation sessions)**			
21	8	Students arrive and leave belongings in central area or puts under seat. (No cell phones, other electronics, reference books, math formulas)		
22		After being seated at a computer, provide students with the following items:		
23	*9a*	*Student Authorization Ticket.*		
24	*9b*	*Scratch paper (blank, lined, or graph paper) and pencil. Students can request more. Students print name in upper right-hand corner of paper.*		
25	*9c*	*Printed copy of the math reference sheets are allowed. (not required)* If not distributed rate 5-not applicable		
26	*9d*	*Hand-held calculators (TestNAv supplied or approved) (if none used, 5-NA):* *• Grades 3-5 - students with calculator accommodation only* *• Grades 6 -7 - Four function calculator for calculator portion of test only* *• Grade 8 - Scientific calculator for calculator portion of test only* *• Grade HS - Graphing calculator for calculator portion of test only* Try best to see, if suspect wrong calc. type, Rate 3-NM & provide details		
27	*9e*	*Tracing paper, reflection tools, ruler, compass, protractor are allowed for grade 8 students and those taking Geometry and Alg, Integtd. Math only.*		
28	*9f*	*Headphones: Required for PBA ELA test sessions (except grade 8)but not EOY. Students with text to speech accommodation may use headphones.*		
29		*NOTE: Student can use headphones as noise buffer, in which case the TA must ensure they are not plugged in. If TA does not verify, rate as 2-partial and provide a comment, if no one uses rate 5-NA.*		
30	Notes:			

33	**Administer Assessment Activities, cont.**			
34	10	Ensure students log in and have access to the test. (note how long it takes)		
35	11	Provide seal code and write Start/Stop times in timing box when script advises. (If only does verbal, rate 2-partial, and provide note)		
36	12	Read script verbatim in "SAY" box. (can't modify, but repeat and some clarification after reading verbatim first OK) (If a few slips, rate 1-Met)		
37		Handle technical problems as trained: (rate a and b separately, but if no issues rate 5-NA for both a and b)		
38	*13a*	*Individual: Note time to adjust remaining time, try to resolve, if not timely then move student to another computer or dismiss student to resume later*		
39	*13b*	*Multiple students: pause testing, note time to adjust remaining time, try to resolve, TA must update timing box with new times*		
40	14	Monitor student progress using administration computer. (If they ever look at it once testing begins, then rate 1-met)		
41	15	Monitor students by circulating around the room.		
42	16	TC monitors test administration. (Rate 1-met, if in room at some point)		
43	Observer Cues: Are students engaged while TA reads script prior to starting test (too long, repetitive, clear, right length)? Students appear comfortable with navigation, tools, accessing and viewing graphics and videos? TA's can not help students verbally or to navigate (hand over hand). Document if testing is suspended due to technical problems .(e.g., length of time, actions taken)			
44	Notes:			

45	**Administer Assessment Activities, cont.**			
46	17	Keep track of time accurately during the test session. (see Timing box & Session times tab)		
47	18	Answer student questions following script guidance. (note questions, if possible)		
48	19	Handle student alert to unanswerable or misprinted test item. (TA notes content, course/grade, form #, item# for TC, does not write item text, does not allow other school staff to view item) (rate 3-NM if any part is missed, provide specific notes of actions)		
49	20	Provide a verbal prompt when 10 minutes remain.		
50	21	Provide a group 3 minute break if necessary (note if TA doesn't adjust test time on board) or one by one individual restroom breaks (computer screens must be turned off or apply visual block to monitor). Students must not communicate during breaks. Rate 3-NM if any part is missed, provide specific details.		
51	22	Handle testing irregularities. (fire drills, weather, threat) by reporting to TC, noting the time, if leave room lock door to testing room, document time starting back. (no interruptions, rate 5-N/A)		
52	23	Handle student misconduct appropriately, such as disruptions, cheating, accessing electronic device. (Dismisses student and exits their test)		
53	Notes:			
54	**Administer Assessment Activities, cont.**			
55	24	Allow students finishing early to submit test and leave, or stay and sit quietly or read a book, magazine, or textbook. (Arkansas requires students to remain in room until all students finish)		

56	**Accommodations (Special Education or English Learner)**			
57	25	Students receive accommodation in regular session. (**Extended time should be in separate session**) Rate 5-NA if none, Rate 2-partial if Ext Time		
58	26	Students receive separate accommodation. (students receive same accommodations are grouped together) Rate 5 - NA if none		
59	27	Provide the number of students receiving accommodations in box to right.		
60	28	List the accommodations being provided in box to right.		
61	Observer Cues: Note if anyone receives extended time and how it is administered (i.e., others dismissed or wait), may need to ask TA if any students have accommodations in regular session (e.g., text to speech, magnify), note if text to speech works well, or not well, and if there were any issues or difficulties with the human reader, particularly for math.			
62	Notes: Observers use accessibility and accommodation guide while observing separate session, note discrepancies.			
63	**Post-Assessment Activities**			
64	29	Students log off of the session.		
65	30	Collect Student Authorization Ticket and any test materials. (10a-e) If any item is missed, rate 3-NM and list item(s) missed in box to right.		
66	31	Return testing materials to the Test Coordinator. (we may not see)		
67	32	Intends (observer asks) on completing Test Administrator survey after he or she finishes all his or hers testing. Yes - rate 1, No or maybe - rate 3		
68	Additional Comments/Notes:			
69				
70				
72				

PBT Administrations

1	PARCC Operational PBA and EOY Paper-Based Test (PBT) Observation Checklist				
2	Date:				
3	School:		Status Codes:	Session Time: (ex: 0900, 1530)	
4	TA/TC:		1 = Met	Subject:	
5	City:		2 = Partially Met	Grade:	
6	State:		3 = Did Not Met 4 = Not Observed	Observer:	
7	Step	Task	5 = Not Applicable	Status	Comments/Notes specific to line item
8	Pre-Assessment Activities				
9	1	Prepare testing room by providing adequate space to work and sufficiently separated for secure testing.			
10	2	Ensure prohibited materials are not visible. (posters, maps, number lines, word lists, formulas, definitions) Rate 1 if visible and not test related.			
11	3	Draw a timing box on the board, as provided in manual, but wait to fill it in until reading script. (see examples on tab or last page of observation form)			
12	4	Post the example of the STOP and GO ON signs.			
13	5	Allow authorized visitors only, such as PARCC staff, state/local/school assessment monitors. (List title of non-school visitor, ask TA if needed)			
14	Administer Assessment Activities (complete for both regular and accommodation sessions)				
15	6	Students arrive and leave belongings in central area or puts under seat. (No cell phones, other electronics, reference books, math formulas)			
16	7	Verify student roster (attendance) after being seated.			
17	Observer Cues (for notes): Security breach - TA or student takes photo of test materials (immediately text Richard). Also, if TA leaves room unattended while materials are not secure, coaches students or explains items, reads items/passages text Richard from car.				
18	Notes:				
19					

21	Administer Assessment Activities, cont.			
22	8	Read script verbatim in "SAY" box. (can't modify, but repeat and some clarification after reading verbatim first OK) (If a few slips, rate 1-Met)		
23		Distribute the following materials when indicated in the script:		
24	*9a*	*Test Booklet.*		
25	*9b*	*Scratch paper (blank, lined, or graph paper) and pencil. Students can request more. Students print name in upper right-hand corner of paper.*		
26	*9c*	*Hand-held calculators (TestNAv supplied or approved) (if none used, 5-NA):* *• Grades 3-5 - students with calculator accommodation only* *• Grades 6 -7 - Four function calculator for calculator portion of test only* *• Grade 8 - Scientific calculator for calculator portion of test only* *• Grade HS - Graphing calculator for calculator portion of test only* Try best to see, if suspect wrong calc. type, Rate 3-NM & provide details		
27	*9d*	*Math reference sheets (all but G3-4) & ruler/compass/protractor are allowed for G8 students and those taking Geometry and Alg, Integtd. Math only.*		
28	10	Replace torn or damaged test booklet, but if detected during test, the student answers must later be transcribed in the replacement booklet.		
29	Notes:			

32	**Administer Assessment Activities, cont.**			
33	11	Write Start/Stop times in timing box when script advises. (If only does verbal, rate 2-partial, and provide note)		
34	12	Monitor students by circulating around the room.		
35	13	Handle contaminated (e.g., cut, illness) test materials appropriately by stopping test, medical attention, record time/item/page #, seal materials in plastic bag, clean area, if student returns replace booklet.		
36	14	Keep track of time accurately during the test session. (see tables on tab or last pages of checklist)		
37	15	Answer student questions following script guidance. (note questions, if possible)		
38	16	Handle student alert to unanswerable or misprinted test item. (TA notes content, course/grade, form #, item# for TC, does not write item text, does not allow other school staff to view item) Rate 3-NM if any part is missed and provide specific notes of actions.		
39	Observer Cues: Are students engaged while TA reads script prior to starting test (too long, repetitive, clear, right length)? Document if testing is suspended for student or all students (e.g., nature of incident, length of time, actions taken). Detail any breach in test security (e.g., TA discussing items, dismissing disruptive students, providing too much help to student). Note any evidence that students may be confused with different item types (possible indicator they did not access the practice tests or tutorials).			
	Notes: Observers use accessibility and accommodation guide while observing separate session, note descrepancies.			

41	**Administer Assessment Activities, cont.**			
42	17	Provide a verbal prompt when 10 minutes remain.		
43	18	Provide a group 3 minute break (note if TA doesn't adjust test time on board) if necessary or one at a time individual restroom breaks (booklets must be closed or covered). Students must not communicate during breaks. Rate 3-NM if any part is missed, provide specific details.		
44	19	Handle testing irregularities. (fire drills, weather, threat) by reporting to TC, noting the time, if leave room lock door to testing room, document time starting back. (no interruptions, rate 5-N/A)		
45	20	Handle student misconduct appropriately, such as disruptions, cheating, accessing electronic device. (Dismiss student & collects test materials)		
46	21	Allow students finishing early to turn in test materials and leave, or stay and sit quietly or read a book, magazine, or textbook. (Arkansas requires students to remain in room until all students finish)		
47	**Accommodations (Special Education or English Learner)**			
48	22	Students receive accommodation in regular session. (Extended time should be in separate session) Rate 5-NA if none, Rate 2-partial if Ext Time		
49	23	Students receive separate accommdation. (students receive same accommdations are grouped together) Rate 5 - NA if none		
	Notes:			

51	**Accommodation Activities, cont.**			
52	24	Provide the number of students receiving accommodations in box to right.		
53	25	List the accommodations being provided in box to right.		
54	Observer Cues: Note if anyone receives the extended time and how it is administered (i.e., others dismissed or wait), may need to ask TA if any students have accommodations in regular session (e.g., text to speech, magnify), note if text to speech with external technology and if any issues or difficulties or if worked well with the human reader, particularly with math. Student(s) comfortable with human reader or tools they are provided?			
55	Notes: Observers use accommodation job aid while observing separate session, note descrepancies.			
56	**Post-Assessment Activities**			
57	26	Collect student test booklet and any test materials. (10a-d) If any item is missed, rate 3-NM and list item(s) missed in box to right.		
58	27	Return testing materials to the Test Coordinator. (we may not see)		
59	28	Intends (observer asks) on completing Test Administrator survey after he or she finishes all his or hers testing. Yes - rate 1, No or maybe - rate 3		
60	Additional Comments/Notes:			
61				
62				

Appendix B – Debriefing Protocol for Test Administration Site Visits

Test Administrator and/or Coordinator Debriefing Protocol for CBT

PARCC Operational Testing 2015
PBA or EOY Test Administrations

Test Coordinator and/or Administrator Debriefing Protocol - Computer Based Test

Date:		State:	
School:		PBA,EOY:	
City:		Subject:	

(Bold = priority questions)

1	**Describe how the computer-based test (CBT)went today?**
1	
1a	**Follow up: If responds positive or negative, ask in what ways.**
1a	
1b	**Follow up: If problems or issues occurred, ask about them specifically. (Probes: graphics/sound issues, connectivity, students can answer as taught [answer length, no improper fractions]**
1b	
1c	**Follow up: Did testing today go better, same, or worse than other PARCC test administrations you have recently done?**
1c	
2	**Was student engagement high, moderate, or low? Ask them to explain their rating.**
2	
3	What were some of the questions students asked during the assessment?
3	
4	**Was the test administration manual beneficial in preparing for the CBT? If so, or if not, ask in what ways. (Probes: was it well organized, too much info (what wasn't needed), hard to find what you need)**
4	
5	**Were the scripts easy to follow and provide the right amount of information for students? If not, how would you improve them?**
5	
6	Did you receive any training in addition to the administration manual? Describe what that entailed. (Probes: did you watch videos, did you practice, focus is on PARCC training, not district)
6	
7	**Did all students (SD and ELL, too) access the practice tests, sample items, and tutorials prior to taking the CBT? If so, how long ago and do you think they helped prepare the student for CBT? If not, what were reasons they didn't receive the CBT training?**
7	
8	**Have you called the Support Center for any issue? If so, describe the issue(s). (Probes: did you get a satisfactory answer, was the time it took reasonable, did you have to call back)**
8	
9	**<u>If you observed a separate accommodation session</u>, ask if the TA received any specific training, particularly for Human Reader?**
9	
10	**Does PARCC testing require more time and resources to administer than previous state tests you administered? If so, is it just because its new or can you provide specific examples. (a list is fine)**
10	
11	Are there any additional comments you would like to provide regarding test administration, testing materials, training materials, or support?
11	

Test Administrator and/or Coordinator Debriefing Protocol for PBT

PARCC Operational Testing 2015
PBA or EOY Test Administrations

Test Coordinator and/or Administrator Debriefing Protocol - Paper Based Test

Date:		State:	
School:		PBA,EOY:	
City:		Subject:	

(Bold = priority questions)

1	**Describe how the test went today?**
1	
1a	**Follow up: If responds positive or negative, ask in what ways.**
1a	
1b	**Follow up: If problems or issues occurred, ask about them specifically.**
1b	
1c	**Follow up: Did the test today go better, the same, or worse than other PARCC test administrations you**
1c	
2	**Was student engagement high, moderate, or low? Ask them to explain their rating.**
2	
3	What were some of the questions students asked during the assessment?
3	
4	**Was the test administration manual beneficial in preparing for the test? If so, or if not, ask in what ways. (Probes: was it well organized, too much info (what wasn't needed), hard to find what you**
4	
5	**Were the scripts easy to follow and provide the right amount of information for students? If not, how would you improve them?**
5	
6	Did you receive any training in addition to the administration manual? Describe what that entailed. (Probes: did you watch videos, focus is on PARCC training, not district)
6	
7	**Have you called the Support Center for any issue? If so, describe the issue(s). (Probes: did you get a satisfactory answer, was the time it took reasonable, did you have to call back)**
7	
8	**<u>If you observed a separate accommodation session</u>, ask if the TA received any specific training?**
8	
9	**Does PARCC testing require more time and resources to administer than previous state tests you administered? If so, is it just because its new or can you provide specific examples. (a list is fine)**
9	
10	Are there any additional comments you would like to provide regarding test administration, testing materials, training materials, or support?
10	

Appendix C – Test Administrator Survey Items (and codebook) for Computer/Tablet-based Test Administration

PARCC Test Administrator Survey: Computer-based Test Administration

Thank you for administering the PARCC Test. Now, we want to ask you some questions about the assessment(s) you just administered. We will use your answers to help improve the test administration process.

(Background)

1. Please identify which type of assessment you most recently administered:
Variable Name: CBT_Assmnt_Type_S15

- Performance-based assessment (PBA) *Value = 1*
- End-of-year assessment (EOY) *Value = 2*

ALL OF YOUR RESPONSES TO THE ITEMS ON THIS SURVEY SHOULD BE IN REFERENCE TO THE ASSESSMENT TYPE YOU JUST ADMINISTERED (I.E., WHICH EVER OPTION YOU SELECTED FOR QUESTION 1).

2. Please identify the location where you administered the assessment.
Variable Name: CBT_Location_S15

- AR *Value = 1*
- CO *Value = 2*
- DC *Value = 3*
- IL *Value = 4*
- MA *Value = 5*
- MD *Value = 6*
- MS *Value = 7*
- NJ *Value = 8*
- NM *Value = 9*
- OH *Value = 10*
- RI *Value = 11*

Please enter the code and name of the LEA/District in which you administered the assessment.[12]

2a. LEA/District Code: _____ *Variable Name: CBT_LEA_DistrictCode_txt_S15*
2b. District Name: _____ *Variable Name: CBT_DistrictName_txt_S15*

Please enter the code and name of the school in which you administered the assessment.

2c. School Code: _____ *Variable Name: CBT_SchoolCode_txt_S15*
2d. School Name: _____ *Variable Name: CBT_SchoolName_txt_S15*

3. Please indicate which assessment(s) you administered for English Language Arts/Literacy (ELA). *Select all that apply*

- o Not Applicable *Variable Name: CBT_ELA_NA_S15; Value = 1*
- o ELA/L Grade 3 *Variable Name: CBT_ELA_G3_S15; Value = 1*
- o ELA/L Grade 4 *Variable Name: CBT_ELA_G4_S15; Value = 1*
- o ELA/L Grade 5 *Variable Name: CBT_ELA_G5_S15; Value = 1*
- o ELA/L Grade 6 *Variable Name: CBT_ELA_G6_S15; Value = 1*
- o ELA/L Grade 7 *Variable Name: CBT_ELA_G7_S15; Value = 1*
- o ELA/L Grade 8 *Variable Name: CBT_ELA_G8_S15; Value = 1*
- o ELA/L Grade 9 *Variable Name: CBT_ELA_G9_S15; Value = 1*
- o ELA/L Grade 10 *Variable Name: CBT_ELA_G10_S15; Value = 1*
- o ELA/L Grade 11 *Variable Name: CBT_ELA_G11_S15; Value = 1*

4. Please indicate which assessment(s) you administered for Mathematics. *Select all that apply*

- ○ Not Applicable *Variable Name: CBT_M_NA_S15; Value = 1*
- ○ Math Grade 3 *Variable Name: CBT_M_G3_S15; Value = 1*
- ○ Math Grade 4 *Variable Name: CBT_M_G4_S15; Value = 1*
- ○ Math Grade 5 *Variable Name: CBT_M_G5_S15; Value = 1*
- ○ Math Grade 6 *Variable Name: CBT_M_G6_S15; Value = 1*
- ○ Math Grade 7 *Variable Name: CBT_M_G7_S15; Value = 1*
- ○ Math Grade 8 *Variable Name: CBT_M_G8_S15; Value = 1*
- ○ Algebra 1 *Variable Name: CBT_M_ALG1_S15; Value = 1*
- ○ Geometry *Variable Name: CBT_M_GEO_S15; Value = 1*
- ○ Algebra 2 *Variable Name: CBT_M_ALG2_S15; Value = 1*
- ○ Integrated Math 1 *Variable Name: CBT_M_INT1_S15; Value = 1*
- ○ Integrated Math 2 *Variable Name: CBT_M_INT2_S15; Value = 1*
- ○ Integrated Math 3 *Variable Name: CBT_M_INT3_S15; Value = 1*

[12]These state were presented with questions 2a – 2d: DC, MD, MS, OH, RI. These states were not presented with questions 2a – 2d: AR, CO, IL, MA, NJ, NM.

(Test Administrator's Training Experience)

1. Have you ever administered a computer-based test to students before (either at the state or district level)? *Variable Name: CBT_PrevCBTAdmin_S15*
   - o Yes *Value = 1*
   - o No *Value = 2*

2. Please indicate your level of agreement with the following statement, "This training effectively prepared me to administer the PARCC assessments."

	Strongly Disagree *Value = 1*	Disagree *Value = 2*	Agree *Value = 3*	Strongly Agree *Value = 4*	Not Applicable *Value = 5*
Accessibility Features & Accommodations Training Module *CBT_AFAModule_S15*					
Administration of Computer-Based Assessments for Test Administrators Training Module *CBT_AdminModule_S15*					
Infrastructure Trials: Running a Dress Rehearsal Training Module *CBT_InfastructModule_S15*					
Introduction to PARCC Training Modules Training Module *CBT_IntroPARCCModule_S15*					
PearsonAccess^{next} Training Module *CBT_PearsonAccModule_S15*					
Personal Needs Profile (PNP) Training Module *CBT_PNPModule_S15*					
Proctor Caching & TestNav Configuration Training Module *CBT_ProcCachTestNavModule_S15*					
Student Readiness Resources for PARCC Training Module *CBT_StudReadResModule_S15*					
Student Registration Import Training Module *CBT_StudRegImpModule_S15*					
Technology "Readiness" for Schools & Districts Training Module *CBT_TechReadinessModule_S15*					
Training from my state department of education *CBT_State_Training_S15*					
Training from my district *CBT_Dist_Training_S15*					
Training from my school *CBT_School_Training_S15*					

3. The PARCC online training(s) prepared me to resolve basic problems related to technology (e.g., logging students in, exiting the test, etc.)

Variable Name: CBT_Mod_FixTechProb_S15

- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*
- Not applicable *Value = 5*

4. Do you have any specific recommendations on how PARCC can improve its online training?
_____ *Variable Name: CBT_ModRecommendations_txt_S15*

(Test Administration Experience)

1. Please indicate your level of agreement with each of the following statements.

a. The policies and procedures within the Test Administrator Manual were easy for me to understand.
Variable Name: CBT_Pol_ProcUnderstand_S15

- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

b. The instructions (including scripts for administering the assessment) within the Test Administrator Manual were easy for me to implement. *Variable Name: CBT_InstructionEaseImp_S15*

- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

c. Students appeared to understand the directions I read to them during the test administration.
Variable Name: CBT_StudentUnderstand_S15

- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

d. The instructions I read to the students covered all of the information necessary to take the test.
Variable Name: CBT_Necessary_Info_S15

- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

2. Please indicate if student(s) asked questions about the following topics. *Select all that apply*

- Clarification on the instructions I read to them *Variable: CBT_StudQs_TAinstr_S15*
- What to do if there were technology-related problems *Variable: CBT_StudQs_TechProb_S15; Value=1*
- How to find or use tools *Variable: CBT_StudQs_Tools_S15; Value=1*
- How to navigate through the test *Variable: CBT_StudQs_Navigate_S15; Value=1*
- How to mark answers and enter responses *Variable: CBT_StudQs_MarkAns_S15; Value = 1*
- How to exit the test when finished *Variable: CBT_StudQs_Exit_S15; Value=1*
- What to do after they completed the test *Variable: CBT_StudQs_AfterCmplt_S15; Value=1*
- Other, (please specify). *Variable: CBT_StudQs_Other_S15; Value=1*
  Other: _____ *Variable: CBT_StudQs_Other_txt_S15*

3. Please indicate if any of the following technology-related problems occurred during testing. Be sure to respond based on the type of assessment you most recently administered (i.e., either PBA or EOY). *Select all that apply*

- No technology-related problems occurred. *Variable: CBT_NoProb_Occur_S15; Value=1*
- Students had difficulty logging into the assessment *Variable: CBT_LogOn_Occur_S15; Value=1*
- Device(s) stopped working *Variable: CBT_DevStop_Occur_S15; Value=1*
- Devices worked slowly *Variable: CBT_DevSlow_Occur_S15; Value=1*
- Lost internet connectivity *Variable: CBT_LostConnect_Occur_S15; Value=1*
- System disconnected or logged students out of assessment during administration *Variable: CBT_SysDiscnct_Occur_S15; Value = 1*
- TestNav online tools (e.g., highlighter, calculator) did not work appropriately *Variable: CBT_TestNav_Occur_S15; Value = 1*
- Accessibility features (e.g., eliminate answer) did not work appropriately. *Variable: CBT_AccFeatures_Occur_S15; Value = 1*
- Other, (please specify). *Variable: CBT_OtherProb_Occur_S15; Value=1*

Other:_____ *Variable: CBT_OtherProb_Occur_txt_S15*

4. Did your students have sufficient time to finish the test? *Variable Name: CBT_Suff_time_S15*

- Most students finished very early. *Value = 1*
- Most students finished on time. *Value = 2*
- Most students had to rush to finish. *Value = 3*
- Most students did not finish. *Value = 4*

(Accessibility Features and Accommodations)

1. Did you read the "PARCC Accessibility Features and Accommodations Manual" prior to administration? *Variable Name: CBT_AFA_Manual_Read_S15*

- Yes *Value=1*
- No *Value=2*

2. Please indicate your level of agreement with the following statement: This particular item/component effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments.

	Strongly Disagree *Value=1*	Disagree *Value=2*	Agree *Value=3*	Strongly Agree *Value=4*	Not Applicable *Value=5*
a. PARCC Accessibility Features and Accommodations Manual – 3rd Edition *CBT_AFA_Manual_effective_S15*					
b. Accessibility and Accommodations Training Module *CBT_AA_TrainMod_effective_S15*					
c. Personal Needs Profile Training Module *CBT_PNP_TrainMod_effective_S15*					
d. Personal Needs Profile Field Definitions *CBT_PNP_Defs_effective_S15*					
e. Training or resources from my state department of education *CBT_AFA_state_effective_S15*					
f. Training from my district *CBT_AFA_dist_effective_S15*					
g. Training from my school *CBT_AFA_school_effective_S15*					

3. Did you administer the following accessibility features or accommodations to any of your students? *Select all that apply*

- Human reader for mathematics *CBT_humanread_M_S15; value = 1*
- Human reader for ELA/L *CBT_humanread_ELA_S15; value = 1*
- Human scribe *CBT_humanscribe_S15; value = 1*
- Human signer *CBT_humansign_S15; value = 1*
- General test directions read aloud in students' native languages *CBT_humanread_drctn_S15; value = 1*
- External speech-to-text device *CBT_ext_texttospch_S15; value = 1*
- Extended time *CBT_extendtime_S15; value = 1*
- External word prediction device *CBT_ext_wrdprddev_S15; value = 1*
- Calculator or calculation device on non-calculator section; *CBT_calculator_S15; value = 1*
- Other external assistive technology devices *CBT_otherextdev_S15; value = 1*

4. Please indicate your level of agreement with the following statement: This particular appendix/guideline effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments.

	Strongly Disagree *Value=1*	Disagree *Value=2*	Agree *Value=3*	Strongly Agree *Value=4*	Did Not Administer Relevant Accommodation/ Accessibility Feature *Value=5*
a. Appendix A: Accessibility Features and Accommodations for Students taking the Paper-Based PARCC Assessments *CBT_AFA_AppA_S15*					
b. Appendix B: Test Administration Protocol for the Human Reader Accommodations for ELA/L and the Human Reader Accessibility Feature for Math *CBT_AFA_AppB_S15*					
c. Appendix C: Protocol for the Use of the Scribe and for Transcribing Student Responses *CBT_AFA_AppC_S15*					
d. Appendix E: Guidance for Selecting and Administering the Extended Time Accommodation *CBT_AFA_AppE_S15*					
e. Appendix I: PARCC ELA Audio Guidelines *CBT_AFA_AppI_S15*					
f. Appendix J: PARCC Math Audio Guidelines *CBT_AFA_AppJ_S15*					
g. Assistive Technology Guidelines *CBT_AFA_AsstTech_S15*					
h. PARCC Technical Assistance Bulletin – PARCC Assessments and Students with Visual Impairment, Including Blindness *CBT_AFA_TechBulletin_S15*					

5. The process for identifying accessibility features and accommodations in advance (via the Personal Needs Profile and associated trainings) was clear and easy to follow.
CBT_PNP_clear_S15

- Strongly Disagree *Value=1*
- Disagree *Value=2*
- Agree *Value=3*
- Strongly Agree *Value=4*
- Not Applicable. I was not responsible for uploading and/or adding PNP data. *Value=5*

6. Were all the accommodations/accessibility features that were pre-identified in the PNP made available to students during a practice session with sample items, tutorial(s), or practice test(s)?
Variable Name: CBT_AFA_available_S15

- Yes *Value = 1*
- No *Value = 2*
- Not Sure/Don't Know *Value = 3*
- Not Applicable *Value = 4*

7. During administration, were changes made to a student's PNP or to the availability of accommodations or accessibility features? *CBT_PNP_changes_S15*

- Yes *Value=1*
- No *Value=2*
- Not Sure/Don't Know *Value=3*
- Not Applicable *Value = 4*

(Sample Items/Tutorials)

1. How did **students** in your session(s) practice with PARCC content prior to administration? *Select all that apply.*

- My students practiced with **sample items** prior to administration *CBT_sample_items_S15; Value = 1*
- My students practiced with **tutorials** prior to administration *CBT_tutorials_S15; Value = 1*
- My students took a **practice test** prior to administration *CBT_practice_test_S15; Value = 1*
- My students did not practice with PARCC content prior to administration *CBT_no_practice_S15; Value = 1*
- Not sure/Don't know *CBT_pract_dontknow_S15; value = 1*

2. How did you, as a **Test Administrator**, work with PARCC content prior to administration? Select all that apply.

- I reviewed the **sample items** prior to administration *CBT_TA_sample_items_S15; Value = 1*
- I reviewed the **tutorials** prior to administration *CBT_TA_tutorials_S15; Value = 1*
- I took a **practice test** prior to administration *CBT_TA_practice_test_S15; Value = 1*
- I did not practice with PARCC content prior to administration *CBT_TA_no_practice_S15; Value =1*

3. Completion of the PARCC tutorial helped me to better understand the tools and functionalities of the TestNav system.
Variable Name: CBT_TATutorial_UndrstndTestNav_S15

- Strongly Disagree *Value=1*
- Disagree *Value=2*
- Agree *Value=3*
- Strongly Agree *Value=4*
- Not applicable *Value=5*

(Final Feedback)

1. Please use the space below to provide any other recommendations (not already provided in the questions above) that may help PARCC improve its administration policies and procedures (e.g., administration instructions, security policies/procedures, and/or the role of the Test Administrator).
Variable Name: CBT_FinalFeedback_txt_S15

Appendix D – Test Administrator Survey Items (and codebook) for Paper-based Test Administration

PARCC Test Administrator Survey: Paper-based Test Administration

Thank you for administering the PARCC Test. Please note that you should only respond to this survey once after you have completed administering all of your PBA sessions and once after you have completed all of your EOY sessions. Now, we want to ask you some questions about the assessment(s) you just administered. We will use your answers to help improve the test administration process.

(Background)

1. Please identify which type of assessment you most recently administered:
Variable Name: PBT_Assmnt_Type_S15

- Performance-based assessment (PBA) *Value = 1*
- End-of-year assessment (EOY) *Value = 2*

ALL OF YOUR RESPONSES TO THE ITEMS ON THIS SURVEY SHOULD BE IN REFERENCE TO THE ASSESSMENT TYPE YOU JUST ADMINISTERED (I.E., WHICH EVER OPTION YOU SELECTED FOR QUESTION 1).

2. Please identify the location where you administered the assessment.
Variable Name: PBT_Location_S15

- AR *Value = 1*
- CO *Value = 2*
- DC *Value = 3*
- IL *Value = 4*
- MA *Value = 5*
- MD *Value = 6*
- MS *Value = 7*
- NJ *Value = 8*
- NM *Value = 9*
- OH *Value = 10*
- RI *Value = 11*

Please enter the code and name of the LEA/District in which you administered the assessment.[13]

2a. LEA/District Code: _____ *Variable Name: PBT_LEA_DistrictCode_txt_S15*

2b. District Name: _____ *Variable Name: PBT_DistrictName_txt_S15*

Please enter the code and name of the school in which you administered the assessment.

2c. School Code: _____ *Variable Name: PBT_SchoolCode_txt_S15*

2d. School Name: _____ *Variable Name: PBT_SchoolName_txt_S15*

3. Please indicate which assessment(s) you administered for English Language Arts/Literacy (ELA/L). *Select all that apply*

- o Not Applicable *Variable Name: PBT_ELA_NA_S15; Value = 1*
- o ELA/L Grade 3 *Variable Name: PBT_ELA_G3_S15; Value = 1*
- o ELA/L Grade 4 *Variable Name: PBT_ELA_G4_S15; Value = 1*
- o ELA/L Grade 5 *Variable Name: PBT_ELA_G5_S15; Value = 1*
- o ELA/L Grade 6 *Variable Name: PBT_ELA_G6_S15; Value = 1*
- o ELA/L Grade 7 *Variable Name: PBT_ELA_G7_S15; Value = 1*
- o ELA/L Grade 8 *Variable Name: PBT_ELA_G8_S15; Value = 1*
- o ELA/L Grade 9 *Variable Name: PBT_ELA_G9_S15; Value = 1*
- o ELA/L Grade 10 *Variable Name: PBT_ELA_G10_S15; Value = 1*
- o ELA/L Grade 11 *Variable Name: PBT_ELA_G11_S15; Value = 1*

4. Please indicate which assessment(s) you administered for Mathematics. *Select all that apply*

- o Not Applicable *Variable Name: PBT_M_NA_S15; Value = 1*
- o Math Grade 3 *Variable Name: PBT_M_G3_S15; Value = 1*
- o Math Grade 4 *Variable Name: PBT_M_G4_S15; Value = 1*
- o Math Grade 5 *Variable Name: PBT_M_G5_S15; Value = 1*
- o Math Grade 6 *Variable Name: PBT_M_G6_S15; Value = 1*
- o Math Grade 7 *Variable Name: PBT_M_G7_S15; Value = 1*
- o Math Grade 8 *Variable Name: PBT_M_G8_S15; Value = 1*
- o Algebra 1 *Variable Name: PBT_M_ALG1_S15; Value = 1*
- o Geometry *Variable Name: PBT_M_GEO_S15; Value = 1*
- o Algebra 2 *Variable Name: PBT_M_ALG1_S15; Value = 1*
- o Integrated Math 1 *Variable Name: PBT_M_INT1_S15; Value = 1*
- o Integrated Math 2 *Variable Name: PBT_M_INT2_S15; Value = 1*
- o Integrated Math 3 *Variable Name: PBT_M_INT3_S15; Value = 1*

[13]These state were presented with questions 2a – 2d: DC, MD, MS, OH, RI. These states were not presented with questions 2a – 2d: AR, CO, IL, MA, NJ, NM.

(Test Administrator's Training Experience)

1. Please indicate your level of agreement with the following statement: This training effectively prepared me to administer the PARCC assessments.

	Strongly Disagree *Value = 1*	Disagree *Value = 2*	Agree *Value = 3*	Strongly Agree *Value = 4*	Not Applicable *Value = 5*
Introduction to PARCC Training Modules *PBT_IntroPARCCModule_S15*					
Accessibility Features & Accommodations Training Module *PBT_AFAModule_S15*					
Administration of Paper-Based Assessments for Test Administrators Training Module *PBT_AdminModule_S15*					
PearsonAccess^{next} Training Module *PBT_PearsonAccModule_S15*					
Student Registration Import Training Module *PBT_StudRegImpModule_S15*					
Student Readiness Resources for PARCC Training Module *PBT_StudReadResModule_S15*					
Training from my state department of education *PBT_State_Training_S15*					
Training from my district *PBT_Dist_Training_S15*					
Training from my school *PBT_School_Training_S15*					

2. Do you have any specific recommendations on how PARCC can improve its online training?
_____ *Variable Name: PBT_ModRecommendations_txt_S15*

(Test Administration Experience)

1. Please indicate your level of agreement with each of the following statements.

a. The policies and procedures within the Test Administrator Manual were easy for me to understand.
Variable Name: PBT_Pol_ProcUnderstand_S15
- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

b. The instructions (including scripts for administering the assessment) within the Test Administrator Manual were easy for me to implement.
Variable Name: PBT_InstructionEaseImp_S15
- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

c. Students appeared to understand the directions I read to them during the test administration.
Variable Name: PBT_StudentUnderstand_S15
- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

d. The instructions I read to the students covered all of the information necessary to take the test.
Variable Name: PBT_Necessary_Info_S15
- Strongly Disagree *Value = 1*
- Disagree *Value = 2*
- Agree *Value = 3*
- Strongly Agree *Value = 4*

2. Please indicate if student(s) asked questions about the following topics. Select all that apply.

- Clarification on the instructions I read to them *Variable: PBT_StudQs_TAinstr_S15; Value=1*
- When they could use a calculator *Variable: PBT_StudQs_Calculator_S15; Value=1*
- How to mark answers and enter responses *Variable: PBT_StudQs_MarkAns_S15; Value = 1*
- What to do after they completed the test *Variable: PBT_StudQs_AfterCmplt_S15; Value=1*
- Other, (please specify). *Variable: PBT_StudQs_Other_S15; Value=1*

Other: _____ *Variable: PBT_StudQs_Other_txt_S15*

3. Did your students have sufficient time to finish the test? *Variable Name: PBT_Suff_time_S15*

- Most students finished very early. *Value = 1*
- Most students finished on time. *Value = 2*
- Most students had to rush to finish. *Value = 3*
- Most students did not finish. *Value = 4*

(Accessibility Features and Accommodations)

1. Did you read the "PARCC Accessibility Features and Accommodations Manual" prior to administration? *Name: PBT_AFA_Manual_Read_S15*

- Yes *Value=1*
- No *Value=2*

2. For each item below, indicate your level of agreement with the following statement: This particular item/component effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments.

	Strongly Disagree *Value=1*	Disagree *Value=2*	Agree *Value=3*	Strongly Agree *Value=4*	Not Applicable *Value=5*
a. PARCC Accessibility Features and Accommodations Manual – 3rd Edition *PBT_AFA_Manual_effective_S15*					
b. Accessibility and Accommodations Training Module *PBT_AA_TrainMod_effective_S15*					
c. Personal Needs Profile Training Module *PBT_PNP_TrainMod_effective_S15*					
d. Personal Needs Profile Field Definitions *PBT_PNP_Defs_effective_S15*					
e. Training or resources from my state department of education *PBT_AFA_state_effective_S15*					
f. Training from my district *PBT_AFA_dist_effective_S15*					
g. Training from my school *PBT_AFA_school_effective _S15*					

3. Did you administer the following accessibility features or accommodations to any of your students? *Select all that apply*.

- Human reader for mathematics *PBT_humanread_M_S15; value = 1*
- Human reader for ELA/L *PBT_humanread_ELA_S15; value = 1*
- Human scribe *PBT_humanscribe_S15; value = 1*
- Human signer *PBT_humansign_S15; value = 1*
- General test directions read aloud in students' native languages *PBT_humanread_drctn_S15; value = 1*
- External speech-to-text device *PBT_ext_texttospch_S15; value = 1*
- Extended time *PBT_extendtime_S15; value = 1*
- External word prediction device *PBT_ext_wrdprddev_S15; value = 1*
- Calculator or calculation device on non-calculator sections; *PBT_calculator_S15; value = 1*
- Other external Assistive Technology devices *PBT_otherextdev_S15; value = 1*

4. For each item below, indicate your level of agreement with the following statement: This particular appendix/guideline effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments.

	Strongly Disagree *Value=1*	Disagree *Value=2*	Agree *Value=3*	Strongly Agree *Value=4*	Did Not Administer Relevant Accommodation/ Accessibility Feature *Value=5*
a. Appendix A: Accessibility Features and Accommodations for Students taking the Paper-Based PARCC Assessments *PBT_AFA_AppA_S15*					
b. Appendix B: Test Administration Protocol for the Human Reader Accommodations for ELA/L and the Human Reader Accessibility Feature for Math *PBT_AFA_AppB_S15*					
c. Appendix C: Protocol for the Use of the Scribe and for Transcribing Student Responses *PBT_AFA_AppC_S15*					
d. Appendix E: Guidance for Selecting and Administering the Extended Time Accommodation *PBT_AFA_AppE_S15*					
e. Appendix I: PARCC ELA Audio Guidelines *PBT_AFA_AppI_S15*					
f. Appendix J: PARCC Math Audio Guidelines *PBT_AFA_AppJ_S15*					
g. Assistive Technology Guidelines *PBT_AFA_AsstTech_S15*					
h. PARCC Technical Assistance Bulletin – PARCC Assessments and Students with Visual Impairment, Including Blindness *PBT_AFA_TechBulletin_S15*					

5. The process for identifying accessibility features and accommodations in advance (via the Personal Needs Profile and associated trainings) was clear and easy to follow. *PBT_PNP_clear_S15*

- Strongly Disagree *Value=1*
- Disagree *Value=2*
- Agree *Value=3*
- Strongly Agree *Value=4*
- Not Applicable. I was not responsible for uploading and/or adding PNP data. *Value=5*

6. Were all the accommodations/accessibility features that were pre-identified in the PNP made available to students during a practice session with sample items, tutorial(s), or practice test(s)? *Variable Name: PBT_AFA_available_S15*

- Yes *Value = 1*
- No *Value = 2*
- Not Sure/Don't Know *Value = 3*
- Not Applicable *Value = 4*

7. During administration, were changes made to a student's PNP or to the availability of accommodations or accessibility features? *PBT_PNP_changes_S15*

- Yes *Value=1*
- No *Value=2*
- Not Sure/Don't Know *Value=3*
- Not Applicable *Value = 4*

(Sample Items/Tutorials)

1. How did **students** in your session(s) practice with PARCC content prior to administration? *Select all that apply*.

- My students practiced with **sample items** prior to administration *PBT_sample_items_S15; Value = 1*
- My students practiced with **tutorials** prior to administration *PBT_tutorials_S15; Value = 1*
- My students took a **practice test** prior to administration *PBT_practice_test_S15; Value = 1*
- My students did not practice with PARCC content prior to administration *PBT_no_practice_S15; Value = 1*
- Not sure/Don't know *PBT_pract_dontknow_S15; value = 1*

2. How did you, as a **Test Administrator**, work with PARCC content prior to administration? *Select all that apply*.

- I reviewed the **sample items** prior to administration *PBT_TA_sample_items_S15; Value = 1*
- I reviewed the **tutorials** prior to administration *PBT_TA_tutorials_S15; Value = 1*
- I took a **practice test** prior to administration *PBT_TA_practice_test_S15; Value = 1*
- I did not practice with PARCC content prior to administration *PBT_TA_no_practice_S15; Value = 1*

3. Completion of the PARCC paper-based student tutorials helped better prepare me for administering the assessment. *Variable Name: PBT_TAPracItems_PrepAdmin_S15*

- Strongly Disagree *Value=1*
- Disagree *Value=2*
- Agree *Value=3*
- Strongly Agree *Value=4*
- Not applicable *Value=5*

(Final Feedback)

1. Please use the space below to provide any other recommendations (not already provided in the questions above) that may help PARCC improve its administration policies and procedures (e.g., administration instructions, security policies/procedures, and/or the role of the Test Administrator).
Variable Name: PBT_FinalFeedback_txt_S15

Appendix E – Student Survey Items (and Code Book) for CBT EOY Mathematics Assessment

Now that you have finished the PARCC mathematics test, we would like to know about your experience. We will use your responses to help make a better testing experience for students in the future.

Directions:

Please answer the questions below as best that you can. If you do not understand a question, please skip it and go on.

1. Did you understand all of the directions read by the person who gave you the test?
Variable Name = CBT_Math_Understand_Instr
Yes *Value = 1*
No *Value = 2*

2. How often was it hard to understand the directions for the questions on this test?
Variable Name = CBT_Math_Difficult_Instr
Almost Always *Value = 1*
Most of the time *Value = 2*
Some of the time *Value = 3*
Almost Never *Value = 4*

3. How many questions asked you about things you have not learned in school this year?
Variable Name = CBT_Math_Qs_Not_Learned
All of them *Value = 1*
Most of them *Value = 2*
Few of them *Value = 3*
None of them *Value = 4*

4. How difficult was this test?
Variable Name = CBT_Math_DifTest
It was easier than my school work *Value = 1*
It was about the same as my school work *Value = 2*
It was harder than my school work *Value = 3*

5. Did you have enough time to finish this test?
Variable Name = CBT_Math_Time_Finish
I finished very early *Value = 1*
I finished on time *Value = 2*
I had to rush to finish *Value = 3*
I did not finish *Value = 4*

6. How often do you use a computer or tablet at home?
Variable Name = CBT_Math_Home_Tech
Every day *Value = 1*
A few times a week *Value = 2*
A couple of times a month or less *Value = 3*
I don't have a computer or a tablet at home *Value = 4*

7. How often do you use a computer or tablet in school?
Variable Name = CBT_Math_School_Tech
Every day *Value = 1*
A few times a week *Value = 2*
A couple of times a month or less *Value = 3*
I have never used a computer or tablet in school *Value = 4*

8. When writing a story or essay, how often do you use a computer or tablet?
Variable Name = CBT_Math_Tech_Writing
All of the time *Value = 1*
Most of the time *Value = 2*
Some of the time *Value = 3*
Never *Value = 4*

9. Would you rather take this test on paper OR on a computer or tablet?
Variable Name = CBT_Math_Test_Pref
On paper *Value = 1*
On a computer or tablet *Value = 2*

10. What did you use to take this test?
Variable Name = CBT_Math_TechType
Desktop computer *Value = 1*
Laptop computer *Value = 2*
Tablet with a keyboard *Value = 3*
Tablet without a keyboard *Value = 4*

11. Was it easy to type your answers?
Variable Name = CBT_Math_Type
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not type any answers *Value = 3*

12. How many times did you practice on a computer or tablet to get ready for this test?
Variable Name = CBT_Math_TechPractice
Never *Value = 1*
Once *Value = 2*
More than once *Value = 3*

13. Was it easy to use the highlighter?
Variable Name = CBT_Math_Highlight
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not use the highlighter *Value = 3*

14. Was it easy to make pictures or words bigger or smaller?
Variable Name = CBT_Math_Change_Size
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not change the size of pictures or words *Value = 3*

15. Was it easy to enter math symbols and numbers for your answers?
Variable Name = CBT_Math_Enter_SymNum
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not enter math symbols or numbers *Value = 3*

16. Was it easy to use the calculator?
Variable Name = CBT_Math_Calc
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not use the calculator *Value = 3*

17. Did you have problems logging into the test?
Variable Name = CBT_Math_Comp_Log
Yes *Value = 1*
No *Value =2*

18. Did the computer (or tablet) stop working?
Variable Name = CBT_Math_Comp_Stop
Yes *Value = 1*
No *Value =2*

19. Did the computer (or tablet) work slowly?
Variable Name = CBT_Math_Comp_Slow
Yes *Value = 1*
No *Value =2*

20. Did you have a hard time dragging or moving things on the screen?
Variable Name = CBT_Math_Move_Objects
Yes *Value = 1*
No *Value =2*

21. Did you have a hard time making changes to your answers?
Variable Name = CBT_Math_Difficult_Change_Ans
Yes *Value = 1*
No *Value =2*

22. Please click on the sentence that is most true:
Variable Name = CBT_Math_Probs
There were NO problems with the computer (or tablet) while I was taking the test. *Value=1*
There were problems with the computer (or tablet) while I was taking the test. *Value =2*

23. Please use the space below to tell us what you liked and did not like about the test.
Variable Name = CBT_Math_Feedback_txt

Appendix F – Student Survey Items (and Code Book) for CBT EOY ELA Assessment

Student Survey Items (and Code Book) for Computer/Tablet-based PARCC ELA/L Tests

Now that you have finished the PARCC ELA/L test, we would like to know about your experience. We will use your responses to help make a better testing experience for students in the future.

Directions:
Please answer the questions below as best that you can. If you do not understand a question, please skip it and go on.

1. Did you understand all of the directions read by the person who gave you the test?
Variable Name = CBT_ELA_Understand_Instr
Yes *Value = 1*
No *Value = 2*

2. How often was it hard to understand the directions for the questions on this test?
Variable Name = CBT_ELA_Difficult_Instr
Almost Always *Value = 1*
Most of the time *Value = 2*
Some of the time *Value = 3*
Almost Never *Value = 4*

3. How many questions asked you about things you have not learned in school this year?
Variable Name = CBT_ELA_Qs_Not_Learned
All of them *Value = 1*
Most of them *Value = 2*
Few of them *Value = 3*
None of them *Value = 4*

4. How difficult was this test?
Variable Name = CBT_ELA_DifTest
It was easier than my school work *Value = 1*
It was about the same as my school work *Value = 2*
It was harder than my school work *Value = 3*

5. Did you have enough time to finish this test?
Variable Name = CBT_ELA_Time_Finish
I finished very early *Value = 1*
I finished on time *Value = 2*
I had to rush to finish *Value = 3*
I did not finish *Value = 4*

6. How often do you use a computer or tablet at home?
Variable Name = CBT_ELA_Home_Tech
Every day *Value = 1*
A few times a week *Value = 2*
A couple of times a month or less *Value = 3*
I don't have a computer or a tablet at home *Value = 4*

7. How often do you use a computer or tablet in school?
Variable Name = CBT_ELA_School_Tech
Every day *Value = 1*
A few times a week *Value = 2*
A couple of times a month or less *Value = 3*
I have never used a computer or tablet in school *Value = 4*

8. When writing a story or essay, how often do you use a computer or tablet?
Variable Name = CBT_ELA_Tech_Writing
All of the time *Value = 1*
Most of the time *Value = 2*
Some of the time *Value = 3*
Never *Value = 4*

9. Would you rather take this test on paper OR on a computer or tablet?
Variable Name = CBT_ELA_Test_Pref
On paper *Value = 1*
On a computer or tablet *Value = 2*

10. What did you use to take this test?
Variable Name = CBT_ELA_TechType
Desktop computer *Value = 1*
Laptop computer *Value = 2*
Tablet with a keyboard *Value = 3*
Tablet without a keyboard *Value = 4*

11. Was it easy to type your answers?
Variable Name = CBT_ELA_Type
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not type any answers *Value = 3*

12. How many times did you practice on a computer or tablet to get ready for this test?
Variable Name = CBT_ELA_TechPractice
Never *Value = 1*
Once *Value = 2*
More than once *Value = 3*

13. Was it easy to use the highlighter?
Variable Name = CBT_ELA_Highlight
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not use the highlighter *Value = 3*

14. Was it easy to make pictures or words bigger or smaller?
Variable Name = CBT_ELA_Change_Size
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not change the size of pictures or words *Value = 3*

15. Was it easy to move back and forth between passages or stories?
Variable Name = CBT_ELA_Change_Pass
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not move between passages or stories *Value = 3*

16. Was it easy to find information in the passages or stories when answering questions?
Variable Name = CBT_ELA_Find_Info
Yes, it was easy *Value = 1*
No, it was hard *Value = 2*
I did not move between stories or passages *Value = 3*

17. Did you have problems logging into the test?
*Variable Name = CBT_ELA_Comp_Log_*
Yes *Value = 1*
No *Value =2*

18. Did the computer (or tablet) stop working?
Variable Name = CBT_ELA_Comp_Stop
Yes *Value = 1*
No *Value =2*

19. Did the computer (or tablet) work slowly?
Variable Name = CBT_ELA_Comp_Slow
Yes *Value = 1*
No *Value =2*

20. Did you have a hard time dragging or moving things on the screen?
Variable Name = CBT_ELA_Move_Objects
Yes *Value = 1*
No *Value =2*

21. Did you have a hard time making changes to your answers?
Variable Name = CBT_ELA_Difficult_Change_Ans
Yes *Value = 1*
No *Value =2*

22. Please click on the sentence that is most true:
Variable Name = CBT_ELA_Probs
There were NO problems with the computer (or tablet) while I was taking the test. *Value =1*
There were problems with the computer (or tablet) while I was taking the test. *Value =2*

23. Please use the space below to tell us what you liked and did not like about the test.
Variable Name = CBT_ELA_Feedback_txt

Appendix G – Item-level Results from Test Administrator Survey: CBT Administration with Breakouts for PBA and EOY

Computer-Based

Background Information

Table G-1. TA Survey Respondents by Administration and State

	CBT PBA		CBT EOY	
	N-count	%	N-count	%
Arkansas	2,358	22.4	2,838	25.4
Colorado	136	1.3	183	1.6
District of Columbia	55	0.5	30	0.3
Illinois	2,264	21.5	1,803	16.1
Maryland	555	5.3	1,056	9.4
Massachusetts	693	6.6	752	6.7
Mississippi	92	0.9	72	0.6
New Jersey	1,920	18.3	3647	32.6
New Mexico	1256	12.0	330	2.9
Ohio	463	4.4	433	3.9
Rhode Island	718	6.8	44	0.4
All States	10,545[a]	100.0	11,232[b]	100.0

Note. Percentages are based on the total number of valid responses for each state. Number of missing for CBT PBA = 35. Number of missing for CBT EOY = 44.
[a]Includes the 35 cases that did not indicate their state. [b]Includes the 44 cases that did not indicate their state.

Table G-2. TA Survey (PBA): Q3. Please indicate which assessment(s) you administered for English Language Arts/Literacy (ELA). Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	426	18.1	421	17.9	392	16.6	393	16.7	412	17.5	397	16.8	335	14.2	319	13.5	129	5.5	135	5.7
Colorado	26	19.1	28	20.6	28	20.6	24	17.6	25	18.4	22	16.2	25	18.4	32	23.5	21	15.4	7	5.1
D.C.	18	32.7	19	34.5	11	20.0	6	10.9	4	7.3	4	7.3	--	--	2	3.6	--	--	4	7.3
Illinois	502	22.2	482	21.3	467	20.6	450	19.9	468	20.7	450	19.9	115	5.1	9	0.4	121	5.3	120	5.3
Maryland	120	21.6	159	28.6	136	24.5	80	14.4	92	16.6	83	15.0	4	0.7	49	8.8	2	0.4	46	8.3
Massachusetts	171	24.7	174	25.1	176	25.4	170	24.5	144	20.8	149	21.5	36	5.2	4	0.6	31	4.5	29	4.2
Mississippi	29	31.5	17	18.5	7	7.6	12	13.0	10	10.9	9	9.8	--	--	13	14.1	1	1.1	17	18.5
New Jersey	372	19.4	345	18.0	331	17.2	252	13.1	243	12.7	219	11.4	232	12.1	241	12.6	206	10.7	143	7.4
New Mexico	222	17.7	247	19.7	231	18.4	207	16.5	235	18.7	209	16.6	147	11.7	168	13.4	160	12.7	78	6.2
Ohio	25	5.4	121	26.1	93	20.1	84	18.1	96	20.7	103	22.2	67	14.5	7	1.5	1	0.2	63	13.6
Rhode Island	130	18.1	162	22.6	148	20.6	116	16.2	87	12.1	92	12.8	78	10.9	67	9.3	6	0.8	64	8.9
All States[b]	2,046	19.4	2,183	20.7	2,025	19.2	1,797	17.0	1,824	17.3	1,743	16.5	1,042	9.9	912	8.6	679	6.4	706	6.7

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses. [b]N-counts include individuals with missing data for state location who selected a grade level.

Table G-3. TA Survey (EOY): Q3. Please indicate which assessment(s) you administered for English Language Arts/Literacy (ELA). Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	628	22.1	578	20.4	526	18.5	428	15.1	373	13.1	413	14.6	414	14.6	392	13.8	169	6.0	158	5.6
Colorado	36	19.7	51	27.9	40	21.9	30	16.4	29	15.8	27	14.8	34	18.6	31	16.9	31	16.9	11	6.0
D.C.	4	13.3	8	26.7	9	30.0	3	10.0	2	6.7	4	13.3	3	10.0	3	10.0	1	3.3	5	16.7
Illinois	388	21.5	387	21.5	375	20.8	342	19.0	360	20.0	335	18.6	64	3.5	14	0.8	60	3.3	83	4.6
Maryland	318	30.1	326	30.9	327	31.0	193	18.3	148	14.0	165	15.6	3	0.3	59	5.6	6	0.6	65	6.2
Massachusetts	216	28.7	211	28.1	207	27.5	133	17.7	115	15.3	120	16.0	46	6.1	--	--	38	5.1	25	3.3
Mississippi	6	8.3	8	11.1	5	6.9	14	19.4	9	12.5	16	22.2	1	1.4	20	27.8	1	1.4	7	9.7
New Jersey	792	21.7	758	20.8	725	19.9	615	16.9	534	14.6	543	14.9	282	7.7	252	6.9	259	7.1	182	5.0
New Mexico	56	17.0	56	17.0	51	15.5	49	14.8	49	14.8	55	16.7	56	17.0	53	16.1	45	13.6	37	11.2
Ohio	29	6.7	111	25.6	76	17.6	64	14.8	78	18.0	91	21.0	38	8.8	2	0.5	--	--	75	17.3
Rhode Island	9	20.5	15	34.1	8	18.2	3	6.8	4	9.1	7	15.9	1	2.3	1	2.3	--	--	4	9.1
All States[b]	2,496	22.2	2,519	22.4	2,359	21.0	1,882	16.8	1,709	15.2	1,784	15.9	943	8.4	827	7.4	612	5.4	654	5.8

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table G-4. TA Survey (PBA): Q4. Please indicate which assessment(s) you administered for Mathematics. Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		ALG 1		GEO		ALG 2		INT 1		INT 2		INT 3		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	432	18.3	420	17.8	394	16.7	391	16.6	401	17.0	354	15.0	353	15.0	278	11.8	85	3.6	3	0.1	3	0.1	2	0.1	203	8.6
Colorado	25	18.4	26	19.1	28	20.6	23	16.9	23	16.9	18	13.2	26	19.1	29	21.3	27	19.9	--	--	--	--	--	--	11	8.1
D.C.	19	34.5	17	30.9	11	20.0	6	10.9	4	7.3	4	7.3	5	9.1	2	3.6	--	--	--	--	--	--	--	--	2	3.6
Illinois	497	22.0	477	21.1	473	20.9	446	19.7	467	20.6	439	19.4	95	4.2	7	0.3	84	3.7	13	0.6	3	0.1	3	0.1	158	7.0
Maryland	116	20.9	158	28.5	133	24.0	72	13.0	81	14.6	74	13.3	68	12.3	1	0.2	37	6.7	1	0.2	--	--	--	--	49	8.8
Massachusetts	174	25.1	179	25.8	169	24.4	164	23.7	141	20.3	134	19.3	40	5.8	15	2.2	17	2.5	2	0.3	--	--	--	--	40	5.8
Mississippi	18	19.6	16	17.4	8	8.7	12	13.0	10	10.9	9	9.8	14	15.2	--	--	1	1.1	--	--	1	1.1	1	1.1	24	26.1
New Jersey	367	19.1	335	17.4	328	17.1	241	12.6	227	11.8	169	8.8	272	14.2	202	10.5	185	9.6	7	0.4	5	0.3	4	0.2	171	8.9
New Mexico	223	17.8	250	19.9	225	17.9	205	16.3	224	17.8	206	16.4	196	15.6	184	14.6	170	13.5	13	1.0	12	1.0	12	1.0	101	8.0
Ohio	100	21.6	121	26.1	95	20.5	84	18.1	85	18.4	87	18.8	53	11.4	32	6.9	2	0.4	14	3.0	1	0.2	--	--	49	10.6
Rhode Island	133	18.5	157	21.9	145	20.2	111	15.5	87	12.1	70	9.7	83	11.6	75	10.4	1	0.1	--	--	--	--	--	--	62	8.6
All States[b]	2,109	20.0	2,164	20.5	2,014	19.1	1,758	16.7	1,756	16.7	1,568	14.9	1,206	11.4	826	7.8	609	5.8	53	0.5	25	0.2	22	0.2	871	8.3

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table G-5. TA Survey (EOY): Q4. Please indicate which assessment(s) you administered for Mathematics. Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		ALG 1		GEO		ALG 2		INT 1		INT 2		INT 3		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	624	22.0	582	20.5	528	18.6	422	14.9	354	12.5	366	12.9	453	16.0	416	14.7	128	4.5	1	0.0	1	0.0	1	0.0	183	6.4
Colorado	38	20.8	53	29.0	39	21.3	31	16.9	27	14.8	25	13.7	22	12.0	19	10.4	20	10.9	14	7.7	10	5.5	11	6.0	13	7.1
D.C.	4	13.3	7	23.3	9	30.0	3	10.0	2	6.7	4	13.3	7	23.3	--	--	1	3.3	--	--	--	--	--	--	1	3.3
Illinois	390	21.6	388	21.5	379	21.0	348	19.3	356	19.7	341	18.9	45	2.5	9	0.5	49	2.7	20	1.1	6	0.3	4	0.2	85	4.7
Maryland	324	30.7	327	31.0	323	30.6	192	18.2	140	13.3	142	13.4	115	10.9	--	--	57	5.4	--	--	1	0.1	--	--	59	5.6
Massachusetts	224	29.8	209	27.8	215	28.6	132	17.6	116	15.4	114	15.2	51	6.8	23	3.1	17	2.3	2	0.3	--	--	1	0.1	31	4.1
Mississippi	5	6.9	8	11.1	7	9.7	14	19.4	9	12.5	16	22.2	15	20.8	--	--	2	2.8	--	--	1	1.4	--	--	7	9.7
New Jersey	804	22.0	766	21.0	721	19.8	612	16.8	532	14.6	467	12.8	378	10.4	250	6.9	220	6.0	5	0.1	5	0.1	8	0.2	160	4.4
New Mexico	57	17.3	56	17.0	51	15.5	50	15.2	49	14.8	61	18.5	72	21.8	61	18.5	56	17.0	2	0.6	1	0.3	3	0.9	30	9.1
Ohio	88	20.3	114	26.3	75	17.3	65	15.0	69	15.9	88	20.3	52	12.0	23	5.3	2	0.5	2	0.5	1	0.2	--	--	38	8.8
Rhode Island	10	22.7	15	34.1	8	18.2	3	6.8	4	9.1	6	13.6	7	15.9	6	13.6	1	2.3	--	--	--	--	--	--	--	--
All States[b]	2,583	23.0	2,533	22.6	2,365	21.1	1,880	16.7	1,666	14.8	1,638	14.6	1,219	10.9	807	7.2	554	4.9	46	0.4	26	0.2	28	0.2	609	5.4

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Test Administrator's Training Experience

Table G-6. TA Survey (PBA): Q1. Have you ever administered a computer-based test to students before (either at the state or district level)?

	Yes		No	
State	n	%	n	%
Arkansas	845	35.9	1,506	64.1
Colorado	97	71.3	39	28.7
D.C.	26	47.3	29	52.7
Illinois	1,268	56.1	991	43.9
Maryland	380	68.5	175	31.5
Massachusetts	219	31.7	471	68.3
Mississippi	34	37.0	58	63.0
New Jersey	503	26.3	1,406	73.7
New Mexico	839	66.9	416	33.1
Ohio	190	41.1	272	58.9
Rhode Island	343	48.0	371	52.0
All States	4,756	45.3	5,754	54.7

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-7. TA Survey (EOY): Q1. Have you ever administered a computer-based test to students before (either at the state or district level)?

	Yes		No	
State	n	%	n	%
Arkansas	1,619	57.3	1,205	42.7
Colorado	143	78.6	39	21.4
D.C.	17	58.6	12	41.4
Illinois	1,249	69.4	550	30.6
Maryland	729	69.4	321	30.6
Massachusetts	327	43.9	418	56.1
Mississippi	40	55.6	32	44.4
New Jersey	1,569	43.2	2,065	56.8
New Mexico	258	78.4	71	21.6
Ohio	246	56.9	186	43.1
Rhode Island	36	83.7	7	16.3
All States	6,255	55.9	4,926	44.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-8. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Accessibility Features & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	110	4.7	328	14.1	1,305	56.1	366	15.7	216	9.3
Colorado	10	7.5	20	14.9	52	38.8	8	6.0	44	32.8
D.C.	--	--	4	7.3	32	58.2	8	14.5	11	20.0
Illinois	132	6.0	354	16.0	1,018	45.9	267	12.0	446	20.1
Maryland	36	6.6	80	14.7	236	43.3	64	11.7	129	23.7
Massachusetts	47	6.9	169	24.9	345	50.7	42	6.2	77	11.3
Mississippi	6	6.7	12	13.5	40	44.9	16	18.0	15	16.9
New Jersey	177	9.5	382	20.6	889	47.8	155	8.3	255	13.7
New Mexico	124	10.0	289	23.4	576	46.7	76	6.2	169	13.7
Ohio	49	10.7	107	23.3	209	45.5	21	4.6	73	15.9
Rhode Island	65	9.4	131	18.8	311	44.7	56	8.1	132	19.0
All States	758	7.3	1,884	18.3	5,026	48.7	1,083	10.5	1,572	15.2

Administration of Computer-Based Assessments for Test Administrators Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	99	4.3	319	13.7	1,324	57.0	389	16.7	192	8.3
Colorado	8	5.9	16	11.8	57	41.9	12	8.8	43	31.6
D.C.	1	1.8	4	7.3	31	56.4	7	12.7	12	21.8
Illinois	109	4.9	306	13.8	1,088	49.1	264	11.9	447	20.2
Maryland	36	6.6	81	14.9	237	43.7	65	12.0	123	22.7
Massachusetts	51	7.6	144	21.4	355	52.8	47	7.0	75	11.2
Mississippi	6	6.8	12	13.6	44	50.0	15	17.0	11	12.5
New Jersey	162	8.8	363	19.7	914	49.6	173	9.4	231	12.5
New Mexico	117	9.5	277	22.5	604	49.1	85	6.9	148	12.0
Ohio	46	10.0	110	24.0	221	48.1	27	5.9	55	12.0
Rhode Island	56	8.1	130	18.8	339	49.1	59	8.6	106	15.4
All States	693	6.7	1,770	17.2	5,228	50.8	1,147	11.2	1,447	14.1

Infrastructure Trials: Running a Dress Rehearsal Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	121	5.2	281	12.1	1,134	48.7	536	23.0	257	11.0
Colorado	10	7.5	20	14.9	28	20.9	12	9.0	64	47.8
D.C.	2	3.6	2	3.6	23	41.8	12	21.8	16	29.1
Illinois	129	5.9	283	12.8	788	35.7	319	14.5	686	31.1
Maryland	40	7.3	81	14.9	196	36.0	65	11.9	163	29.9
Massachusetts	64	9.5	150	22.3	235	34.9	70	10.4	155	23.0
Mississippi	6	6.9	13	14.9	31	35.6	14	16.1	23	26.4
New Jersey	170	9.2	309	16.7	779	42.1	246	13.3	346	18.7
New Mexico	170	13.8	279	22.6	453	36.7	129	10.5	202	16.4
Ohio	53	11.6	81	17.7	177	38.6	30	6.6	117	25.5
Rhode Island	59	8.5	112	16.1	270	38.8	60	8.6	195	28.0
All States	826	8.0	1,620	15.7	4,126	40.1	1,497	14.5	2,229	21.6

(continued)

Table G-8. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Introduction to PARCC Training Modules Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	93	4.0	304	13.1	1,328	57.2	369	15.9	229	9.9
Colorado	5	3.7	21	15.6	47	34.8	12	8.9	50	37.0
D.C.	--	--	2	3.7	29	53.7	7	13.0	16	29.6
Illinois	104	4.7	275	12.5	1,062	48.3	273	12.4	485	22.1
Maryland	33	6.1	67	12.5	244	45.4	49	9.1	144	26.8
Massachusetts	53	8.0	142	21.4	327	49.2	47	7.1	96	14.4
Mississippi	4	4.6	12	13.8	41	47.1	15	17.2	15	17.2
New Jersey	153	8.3	336	18.2	919	49.9	162	8.8	273	14.8
New Mexico	121	9.9	269	21.9	567	46.2	75	6.1	195	15.9
Ohio	41	8.9	103	22.4	213	46.4	22	4.8	80	17.4
Rhode Island	55	8.0	118	17.1	328	47.5	51	7.4	139	20.1
All States	663	6.5	1,660	16.2	5,119	49.9	1,086	10.6	1,724	16.8

PearsonAccess^{next} Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	102	4.4	301	13.0	1,268	54.7	356	15.3	29.	12.6
Colorado	6	4.5	17	12.8	45	33.8	13	9.8	52	39.1
D.C.	1	1.9	2	3.7	27	50.0	7	13.0	17	31.5
Illinois	112	5.1	299	13.6	963	44.0	269	12.3	548	25.0
Maryland	34	6.3	66	12.2	193	35.7	39	7.2	208	38.5
Massachusetts	59	8.8	158	23.6	307	45.8	44	6.6	102	15.2
Mississippi	5	5.7	13	14.8	43	48.9	11	12.5	16	18.2
New Jersey	158	8.6	346	18.9	865	47.3	164	9.0	297	16.2
New Mexico	118	9.6	287	23.4	506	41.2	70	5.7	247	20.1
Ohio	44	9.6	96	21.1	210	46.1	23	5.0	83	18.2
Rhode Island	57	8.4	113	16.7	307	45.4	55	8.1	144	21.3
All States	698	6.8	1,705	16.7	4,745	46.4	1,055	10.3	2,013	19.7

Personal Needs Profile (PNP) Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	122	5.3	323	14.0	1,010	43.7	238	10.3	617	26.7
Colorado	6	4.5	18	13.4	28	20.9	7	5.2	75	56.0
D.C.	1	1.8	3	5.5	22	40.0	6	10.9	23	41.8
Illinois	119	5.4	298	13.6	625	28.5	138	6.3	1,013	46.2
Maryland	39	7.2	73	13.5	144	26.7	23	4.3	261	48.3
Massachusetts	63	9.5	140	21.1	183	27.5	24	3.6	255	38.3
Mississippi	6	6.8	10	11.4	28	43.2	9	10.2	25	28.4
New Jersey	171	9.4	350	19.2	576	31.7	83	4.6	641	35.1
New Mexico	129	9.8	294	24.0	365	29.8	40	3.3	406	33.1
Ohio	49	10.7	90	19.7	141	30.9	18	3.9	159	34.8
Rhode Island	71	10.5	118	17.4	198	29.2	28	4.1	263	38.8
All States	769	7.5	1,726	16.9	3,340	32.7	617	6.0	3,748	36.7

(continued)

Table G-8. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Proctor Caching & TestNav Configuration Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	126	5.4	310	13.4	1,040	44.9	274	11.8	568	24.5
Colorado	5	3.8	16	12.0	36	27.0	8	6.0	68	51.1
D.C.	--	--	3	5.6	22	40.7	5	9.3	24	44.4
Illinois	108	4.9	294	13.4	724	33.0	166	7.6	899	41.0
Maryland	35	6.5	64	12.0	160	29.9	25	4.7	251	46.9
Massachusetts	32	9.3	141	21.2	191	28.8	20	3.0	250	37.7
Mississippi	5	5.7	12	13.6	35	39.8	11	12.5	25	28.4
New Jersey	161	8.8	331	18.2	627	34.4	112	6.1	592	32.5
New Mexico	129	10.5	281	22.9	408	33.3	46	3.7	363	29.6
Ohio	47	10.4	89	19.6	151	33.3	11	2.4	156	34.4
Rhode Island	63	9.3	115	17.0	217	32.0	39	5.8	244	36.0
All States	742	7.3	1,663	16.3	3,621	35.3	717	7.0	3,453	33.9

Student Readiness Resources for PARCC Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	122	5.3	340	14.7	1,119	48.4	298	12.9	435	18.8
Colorado	5	3.7	18	13.3	39	28.9	11	8.1	62	45.9
D.C.	1	1.8	1	1.8	25	445.5	5	9.1	23	41.8
Illinois	121	5.5	310	14.1	837	38.2	183	8.3	741	33.8
Maryland	41	7.6	73	13.5	174	32.3	35	6.5	216	40.1
Massachusetts	56	8.4	139	20.9	247	37.1	32	4.8	192	28.8
Mississippi	6	6.7	10	11.2	40	44.9	14	15.7	19	21.3
New Jersey	173	9.5	343	18.8	728	39.9	120	6.6	459	25.2
New Mexico	124	10.1	292	23.7	474	38.5	74	6.0	267	21.7
Ohio	52	11.6	99	22.0	166	36.9	17	3.8	116	25.8
Rhode Island	59	8.7	116	17.1	254	37.5	47	6.9	201	29.7
All States	763	7.5	1,747	17.1	4,109	40.3	841	8.2	2,742	26.9

Student Registration Import Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	125	5.4	285	12.4	961	41.7	231	10.0	701	30.4
Colorado	5	3.8	17	12.8	24	18.0	7	5.3	80	60.2
D.C.	--	--	4	7.3	20	36.4	5	9.1	26	47.3
Illinois	108	4.9	264	12.1	584	26.7	132	6.0	1,097	50.2
Maryland	37	6.9	65	12.1	121	22.5	18	3.3	297	55.2
Massachusetts	56	8.4	133	20.0	176	26.4	20	3.0	281	42.2
Mississippi	6	6.8	9	10.2	31	35.2	9	10.2	33	37.5
New Jersey	151	8.3	313	17.2	585	32.1	82	4.5	689	37.9
New Mexico	113	9.2	246	20.0	378	30.8	44	3.6	447	36.4
Ohio	46	10.1	89	19.6	140	30.8	10	2.2	169	37.2
Rhode Island	57	8.4	107	15.8	201	29.7	31	4.6	281	41.5
All States	707	6.9	1,536	15.1	3,229	31.7	591	5.8	4,115	40.4

(continued)

Table G-8. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Technology "Readiness" for Schools & Districts Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	141	6.1	300	13.0	974	42.2	276	12.0	616	26.7
Colorado	5	3.7	13	9.7	31	23.1	6	4.5	79	59.0
D.C.	--	--	3	5.5	21	38.2	5	9.1	26	47.3
Illinois	122	5.6	270	12.4	627	28.7	157	7.2	1,009	46.2
Maryland	47	8.8	74	13.9	128	24.0	28	5.3	256	48.0
Massachusetts	65	9.8	130	19.5	178	26.7	24	3.6	269	40.4
Mississippi	6	6.8	10	11.4	34	38.6	12	13.6	26	29.5
New Jersey	176	9.6	328	18.0	593	32.5	122	6.7	608	33.3
New Mexico	165	13.5	263	21.5	369	30.2	59	4.8	365	29.9
Ohio	54	11.8	92	20.2	134	29.4	13	2.9	163	35.7
Rhode Island	60	8.8	112	16.4	209	30.6	37	5.4	266	38.9
All States	844	8.3	1,600	15.7	3,305	32.4	741	7.3	3,697	36.3

Training from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	242	10.5	445	19.2	803	34.7	169	7.3	654	28.3
Colorado	10	7.5	20	14.9	19	14.2	10	7.5	75	56.0
D.C.	3	5.6	4	7.4	18	33.3	5	9.3	24	44.4
Illinois	286	13.1	390	17.8	415	18.9	86	3.9	1,014	46.3
Maryland	59	11.0	87	16.2	94	17.5	15	2.8	282	52.5
Massachusetts	128	19.1	156	23.3	137	20.4	10	1.5	239	35.7
Mississippi	6	6.7	14	15.7	33	37.1	9	10.1	27	30.3
New Jersey	378	20.5	420	22.8	393	21.3	55	3.0	595	32.3
New Mexico	334	27.2	307	25.0	229	18.6	33	2.7	326	26.5
Ohio	118	25.9	102	22.4	95	20.9	4	0.9	136	29.9
Rhode Island	123	17.9	149	21.7	167	24.3	30	4.4	218	31.7
All States	1,694	16.6	2,100	20.5	2,408	23.5	427	4.2	3,601	35.2

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	97	4.2	253	10.9	1,177	50.6	584	25.1	215	9.2
Colorado	9	6.8	17	12.8	36	27.1	16	12.0	55	41.4
D.C.	2	3.6	5	9.1	24	43.6	6	10.9	18	32.7
Illinois	127	5.7	298	13.5	891	40.3	538	24.3	359	16.2
Maryland	47	8.7	83	15.3	175	32.3	47	8.7	190	35.1
Massachusetts	58	8.6	143	21.1	264	39.0	68	10.0	144	21.3
Mississippi	4	4.5	7	8.0	47	53.4	19	21.6	11	12.5
New Jersey	165	8.8	329	17.6	851	45.6	378	20.3	142	7.6
New Mexico	140	11.3	290	23.5	506	41.0	159	12.9	139	11.3
Ohio	42	9.2	77	16.8	200	43.7	88	19.2	51	11.1
Rhode Island	87	12.5	123	17.6	276	39.6	107	15.4	104	14.9
All States	783	7.6	1,630	15.8	4,457	43.2	2,017	19.5	1,443	13.9

(continued)

Table G-8. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	88	3.8	180	7.7	1,249	56.7	756	32.5	51	2.2
Colorado	9	6.6	19	14.0	68	50.0	35	25.7	5	3.7
D.C.	--	--	5	9.1	34	61.8	14	25.5	2	3.6
Illinois	95	4.3	203	9.1	976	44.0	825	37.2	121	5.5
Maryland	32	5.9	56	10.2	288	52.7	139	25.4	32	5.9
Massachusetts	34	5.0	118	17.3	350	51.4	152	22.3	27	4.0
Mississippi	5	5.6	7	7.9	45	50.6	30	33.7	2	2.2
New Jersey	121	6.5	258	13.9	934	50.2	507	27.3	40	2.2
New Mexico	78	6.3	203	16.4	605	48.9	302	24.4	49	4.0
Ohio	39	8.5	65	14.1	213	46.3	116	25.2	27	5.9
Rhode Island	55	7.9	101	14.5	329	47.3	172	24.7	38	5.5
All States	557	5.4	1,220	11.8	5,107	49.4	3,058	29.6	394	3.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-9. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Accessibility Features & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	124	4.4	387	13.8	1,647	58.7	364	13.0	284	10.1
Colorado	8	4.5	31	17.3	91	50.8	14	7.8	35	19.6
D.C.	1	3.4	1	3.4	21	82.8	--	--	3	10.3
Illinois	81	4.6	262	14.9	872	49.7	186	10.6	355	20.2
Maryland	68	6.6	126	12.2	486	47.2	129	12.5	221	21.5
Massachusetts	44	6.0	149	20.2	374	50.8	47	6.4	122	16.6
Mississippi	3	4.2	10	13.9	42	58.3	8	11.1	9	12.5
New Jersey	256	7.2	658	18.5	1,840	51.8	319	9.0	479	13.5
New Mexico	24	7.5	64	20.2	160	49.8	17	5.3	55	17.1
Ohio	44	10.5	107	25.4	179	42.5	19	4.5	72	17.1
Rhode Island	2	4.7	4	9.3	28	65.1	4	9.3	5	11.6
All States	656	6.0	1,806	16.4	5,769	52.5	1,110	10.1	1,642	15.0

Administration of Computer-Based Assessments for Test Administrators Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	115	4.1	343	12.3	1,693	60.6	376	13.5	265	9.5
Colorado	8	4.5	32	17.9	90	50.3	14	7.8	35	19.6
D.C.	--	--	2	6.9	22	75.9	1	3.4	4	13.8
Illinois	70	4.0	231	13.1	898	51.1	202	11.5	358	20.4
Maryland	62	6.1	101	9.9	492	48.1	128	12.5	239	23.4
Massachusetts	44	6.0	159	21.6	375	51.0	48	6.5	109	14.8
Mississippi	3	4.2	8	11.1	49	68.1	5	6.9	7	9.7
New Jersey	237	6.7	608	17.2	1,914	54.0	348	9.8	436	12.3
New Mexico	23	7.2	57	17.9	172	54.1	20	6.3	46	14.5
Ohio	43	10.3	95	22.7	188	45.0	26	6.2	66	15.8
Rhode Island	2	4.7	4	9.3	28	65.1	6	14.0	3	7.0
All States	608	5.6	1,648	15.1	5,947	54.3	1,177	10.8	1,568	14.3

Infrastructure Trials: Running a Dress Rehearsal Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	137	4.9	339	12.1	1,416	50.6	536	19.2	369	13.2
Colorado	10	5.6	36	20.2	62	34.8	15	8.4	55	30.9
D.C.	1	3.4	2	6.9	17	58.6	2	6.9	7	24.1
Illinois	88	5.0	239	13.6	645	36.8	215	12.3	564	32.2
Maryland	77	7.5	136	13.2	376	36.6	130	12.7	308	30.0
Massachusetts	41	5.6	141	19.2	290	39.5	68	9.3	194	26.4
Mississippi	1	1.4	12	16.7	38	52.8	5	6.9	16	22.2
New Jersey	276	7.8	618	17.4	1,529	43.1	470	13.2	655	18.5
New Mexico	34	10.7	60	18.8	146	45.8	28	8.8	51	16.0
Ohio	44	10.5	89	21.2	149	35.6	37	8.8	100	23.9
Rhode Island	2	4.7	5	11.6	18	41.9	7	16.3	11	25.6
All States	712	6.5	1,680	15.3	4,710	43.0	1,518	13.9	2,335	21.3

(continued)

Table G-9. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Introduction to PARCC Training Modules Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	93	4.0	304	13.1	1,328	57.2	369	15.9	229	9.9
Colorado	5	3.7	21	15.6	47	34.8	12	8.9	50	37.0
D.C.	--	--	2	3.7	29	53.7	7	13.0	16	29.6
Illinois	104	4.7	275	12.5	1,062	48.3	273	12.4	485	22.1
Maryland	33	6.1	67	12.5	244	45.4	49	9.1	144	26.8
Massachusetts	53	8.0	142	21.4	327	49.2	47	7.1	96	14.4
Mississippi	4	4.6	12	13.8	41	47.1	15	17.2	15	17.2
New Jersey	153	8.3	336	18.2	919	49.9	162	8.8	273	14.8
New Mexico	121	9.9	269	21.9	567	46.2	75	6.1	195	15.9
Ohio	41	8.9	103	22.4	213	46.4	22	4.8	80	17.4
Rhode Island	55	8.0	118	17.1	328	47.5	51	7.4	139	20.1
All States	596	5.5	1,640	15.1	5,747	52.8	1,094	10.1	1,801	16.6

PearsonAccess^{next} Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	120	4.3	383	13.8	1566	56.4	359	12.9	350	12.6
Colorado	9	5.1	35	19.8	81	45.8	13	7.3	39	22.0
D.C.	1	3.4	1	3.4	17	58.6	1	3.4	9	31.0
Illinois	74	4.2	227	13.0	823	47.1	169	9.7	456	26.1
Maryland	57	5.6	116	11.4	365	35.9	94	9.2	386	37.9
Massachusetts	43	5.9	148	20.5	341	47.2	78	6.6	143	19.8
Mississippi	3	4.2	11	15.5	40	56.3	8	11.3	9	12.7
New Jersey	252	7.2	636	18.1	1,794	51.2	295	8.4	528	15.1
New Mexico	30	9.6	63	20.1	130	41.5	15	4.8	75	24.0
Ohio	41	10.0	104	25.3	163	39.7	17	4.1	86	20.9
Rhode Island	2	4.7	3	7.0	31	72.1	4	9.3	3	7.0
All States	634	5.8	1,735	16.0	5,373	49.5	1,029	9.5	2,085	19.2

Personal Needs Profile (PNP) Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	132	4.7	442	15.9	1,222	44.0	243	8.7	741	26.7
Colorado	11	6.1	38	21.2	55	30.7	9	5.0	66	36.9
D.C.	1	3.4	3	10.3	13	44.8	--	--	12	41.4
Illinois	80	4.6	246	14.2	522	30.1	88	5.1	797	46.0
Maryland	70	6.8	141	13.8	283	27.7	63	6.2	466	45.6
Massachusetts	58	8.0	142	19.7	192	26.6	27	3.7	302	41.9
Mississippi	1	1.4	11	15.5	35	49.3	8	11.3	16	22.5
New Jersey	288	8.2	652	18.6	1,254	35.8	178	5.1	1,132	32.3
New Mexico	27	8.6	64	20.3	109	34.6	10	3.2	105	33.3
Ohio	52	12.7	94	22.9	107	26.0	12	2.9	146	35.5
Rhode Island	1	2.4	6	14.3	17	40.5	3	7.1	15	35.7
All States	725	6.7	1,846	17.0	3,828	35.3	643	5.9	3,804	35.1

(continued)

Table G-9. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Proctor Caching & TestNav Configuration Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	136	4.9	400	14.4	1,240	44.7	265	9.5	736	26.5
Colorado	15	8.4	34	19.0	63	35.2	8	4.5	59	33.0
D.C.	1	3.4	2	6.9	14	48.3	--	--	12	41.4
Illinois	83	4.8	228	13.1	602	34.5	101	5.8	729	41.8
Maryland	73	7.1	105	10.3	295	28.9	73	7.1	475	46.5
Massachusetts	61	8.5	128	17.9	206	28.8	29	4.1	291	40.7
Mississippi	3	4.2	9	12.5	40	55.6	5	6.9	15	20.8
New Jersey	293	8.4	605	17.3	1,314	37.5	215	6.1	1,076	30.7
New Mexico	27	8.5	69	21.8	118	37.2	12	3.8	91	28.7
Ohio	47	11.4	91	22.1	97	23.5	16	3.9	161	39.1
Rhode Island	3	7.1	6	14.3	17	40.5	2	4.8	14	33.3
All States	743	6.8	1,685	15.5	4,027	37.1	728	6.7	3,665	33.8

Student Readiness Resources for PARCC Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	131	4.7	392	14.2	1,361	49.2	301	10.9	583	21.1
Colorado	15	8.5	34	19.3	62	35.2	13	7.4	52	29.5
D.C.	1	3.4	--	--	17	58.6	--	--	11	37.9
Illinois	81	4.6	248	14.2	660	37.9	135	7.7	619	35.5
Maryland	69	6.8	126	12.4	333	32.6	84	8.2	408	40.0
Massachusetts	50	6.9	153	21.1	255	35.2	35	4.8	231	31.9
Mississippi	3	4.2	13	18.1	35	48.6	6	8.3	15	20.8
New Jersey	293	8.4	632	18.0	1,516	43.3	256	7.3	807	23.0
New Mexico	29	9.2	59	18.7	135	42.7	17	5.4	76	24.1
Ohio	49	11.9	92	22.3	118	28.6	23	5.6	131	31.7
Rhode Island	2	4.7	7	16.3	20	46.5	3	7.0	11	25.6
All States	724	6.7	1,764	16.3	4,533	41.8	877	8.1	2,949	27.2

Student Registration Import Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	122	4.4	371	13.4	1,188	42.8	233	8.4	861	31.0
Colorado	13	7.3	35	19.6	50	27.9	10	5.6	71	39.7
D.C.	1	3.4	1	3.4	12	41.4	1	3.4	14	48.3
Illinois	71	7.1	218	12.5	493	28.3	90	5.2	867	49.9
Maryland	63	6.2	116	11.4	242	23.7	61	6.0	540	52.8
Massachusetts	56	7.7	112	15.4	195	26.9	25	3.4	337	46.5
Mississippi	2	2.8	12	16.7	36	50.0	4	5.6	18	25.0
New Jersey	262	7.5	572	16.4	1,201	34.3	185	5.3	1,277	36.5
New Mexico	24	7.6	60	19.0	115	36.4	14	4.4	103	32.6
Ohio	44	10.7	79	19.1	99	24.0	13	3.1	178	43.1
Rhode Island	2	4.8	5	11.9	17	40.5	2	4.8	16	38.1
All States	661	6.1	1,589	14.7	3,665	33.8	641	5.9	4,289	39.5

(continued)

Table G-9. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Technology "Readiness" for Schools & Districts Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	143	5.2	406	14.6	1,189	42.9	293	10.6	741	26.8
Colorado	16	9.0	40	22.5	47	26.4	5	2.8	70	39.3
D.C.	1	3.4	--	--	14	48.3	--	--	14	48.3
Illinois	84	4.9	232	13.4	498	28.8	109	6.3	805	46.6
Maryland	77	7.5	140	13.7	255	24.9	68	6.6	485	47.3
Massachusetts	59	8.2	144	20.0	183	25.4	28	3.9	306	42.5
Mississippi	3	4.2	11	15.3	38	52.8	4	5.6	16	22.2
New Jersey	301	8.6	606	17.3	1,294	37.0	238	6.8	1,063	30.4
New Mexico	31	9.8	65	20.6	107	34.0	14	4.4	98	31.1
Ohio	48	11.6	79	19.0	95	22.9	15	3.6	178	42.9
Rhode Island	1	2.4	6	14.6	18	43.9	3	7.3	13	31.7
All States	766	7.1	1,736	16.0	3,753	34.6	780	7.2	3,797	35.1

Training from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	248	8.9	552	19.9	1,021	36.8	176	6.3	776	28.0
Colorado	25	14.0	33	18.5	37	20.8	10	5.6	73	41.0
D.C.	--	--	1	3.4	11	37.9	1	3.4	16	55.2
Illinois	190	10.9	312	17.9	363	20.9	69	4.0	805	46.3
Maryland	118	11.6	152	14.9	197	19.3	49	4.8	503	49.4
Massachusetts	93	12.8	168	23.0	127	17.4	22	3.0	319	43.8
Mississippi	4	5.6	17	23.9	28	39.4	5	7.0	17	23.9
New Jersey	623	17.7	767	21.8	892	25.4	147	4.2	1,084	30.9
New Mexico	64	20.3	67	21.3	87	27.6	11	3.5	86	27.3
Ohio	106	25.4	84	20.1	69	16.5	12	2.9	146	35.0
Rhode Island	6	14.3	11	26.2	12	28.6	1	2.4	12	28.6
All States	1,479	13.6	2,178	20.0	2,858	26.3	505	4.6	3,844	35.4

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	122	4.4	282	10.1	1,471	52.8	610	21.9	303	10.9
Colorado	17	9.4	28	15.6	66	36.7	18	10.0	51	28.3
D.C.	1	3.4	--	--	12	41.4	2	6.9	14	48.3
Illinois	96	5.5	228	13.0	749	42.6	414	23.5	273	15.5
Maryland	87	8.5	157	15.3	320	31.2	124	12.1	338	32.9
Massachusetts	54	7.4	133	18.1	299	40.7	84	11.4	164	22.3
Mississippi	2	2.8	9	12.7	28	53.5	11	15.5	11	15.5
New Jersey	244	6.8	509	14.2	1,776	49.7	754	21.1	290	8.1
New Mexico	31	9.7	51	16.0	148	46.4	38	11.9	51	15.5
Ohio	28	6.6	69	16.3	185	43.7	96	22.7	45	10.6
Rhode Island	--	--	8	18.6	23	53.5	8	16.6	4	9.3
All States	682	6.2	1,485	13.5	5,105	46.5	2,166	19.7	1,547	14.1

(continued)

Table G-9. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This training material effectively prepared me to administer the PARCC assessments."

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	110	3.9	222	7.9	1,573	56.2	819	29.3	75	2.7
Colorado	7	3.9	21	11.7	96	53.6	49	27.4	6	3.4
D.C.	--	--	1	3.4	19	65.5	9	31.0	--	--
Illinois	79	4.5	157	8.9	854	48.4	575	32.6	98	5.6
Maryland	49	4.8	85	8.3	530	51.6	300	29.2	64	6.2
Massachusetts	42	5.7	110	14.9	406	55.2	143	19.4	35	4.8
Mississippi	4	5.6	4	5.6	43	60.6	16	22.5	4	5.6
New Jersey	177	5.0	387	10.8	1,882	52.7	1,037	29.0	89	2.5
New Mexico	17	5.3	33	10.3	165	51.7	85	26.6	19	6.0
Ohio	24	5.7	57	13.5	196	46.4	118	28.0	27	6.4
Rhode Island	--	--	3	7.1	20	47.6	19	45.2	--	--
All States	509	4.6	1,085	9.9	5,807	52.8	3,178	28.9	419	3.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-10. TA Survey (PBA): Q3. The PARCC online training(s) prepared me to resolve basic problems related to technology (e.g., logging students in, exiting the test, etc.).

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	208	8.9	536	22.8	1,243	53.0	181	7.7	178	7.6
Colorado	9	6.7	32	23.7	68	50.4	4	3.0	22	16.3
D.C.	1	1.9	9	16.7	32	59.3	5	9.3	7	13.0
Illinois	202	9.0	611	27.2	1,000	44.6	147	6.6	284	12.7
Maryland	79	14.5	146	26.7	191	35.0	23	4.2	107	19.6
Massachusetts	95	13.9	235	34.3	284	41.5	22	3.2	49	7.2
Mississippi	10	11.0	22	24.2	40	44.0	105	5.5	135	7.1
New Jersey	253	13.3	605	31.9	799	42.1	105	5.5	135	7.1
New Mexico	225	18.1	375	30.2	469	37.8	44	3.5	129	10.4
Ohio	77	16.8	152	33.2	174	38.0	11	2.4	44	9.6
Rhode Island	77	10.9	196	27.8	317	44.9	29	4.1	87	12.3
All States	1,243	11.9	2,929	28.1	4,630	44.4	582	5.6	1,051	10.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-11. TA Survey (EOY): Q3. The PARCC online training(s) prepared me to resolve basic problems related to technology (e.g., logging students in, exiting the test, etc.).

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	238	8.5	694	24.7	1,464	52.2	198	7.1	213	7.6
Colorado	22	12.2	57	31.5	72	39.8	8	4.4	22	12.2
D.C.	1	3.3	5	16.7	18	60.0	1	3.3	5	16.7
Illinois	172	9.7	490	27.6	785	44.2	108	6.1	220	12.4
Maryland	135	13.0	269	25.8	397	38.1	70	6.7	171	16.4
Massachusetts	99	13.3	264	35.5	299	40.2	18	2.4	64	8.6
Mississippi	4	5.7	20	28.6	35	50.0	6	8.6	5	7.1
New Jersey	433	12.0	1,049	29.1	1,677	46.5	189	5.2	261	7.2
New Mexico	40	12.2	112	34.3	125	38.2	14	4.3	36	11.0
Ohio	81	19.1	151	35.5	143	33.6	10	2.4	40	9.4
Rhode Island	2	4.7	12	27.9	24	55.8	3	7.0	2	4.7
All States	1,232	11.1	3,133	28.2	5,060	45.6	630	5.7	1,039	9.4

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Test Administration Experience

Table G-12. TA Survey (PBA): Q1a. The policies and procedures within the Test Administrator Manual were easy for me to understand.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	81	3.5	240	10.4	1,640	70.8	355	15.3
Colorado	2	1.5	19	14.5	94	71.8	16	12.2
D.C.	2	3.8	6	11.3	36	67.9	9	17.0
Illinois	76	3.5	243	11.1	1,559	71.0	317	14.4
Maryland	23	4.3	67	12.6	357	67.0	86	16.1
Massachusetts	30	4.5	89	13.3	466	69.8	83	12.4
Mississippi	4	4.5	4	4.5	60	67.4	21	23.6
New Jersey	107	5.9	293	16.0	1,226	67.1	202	11.1
New Mexico	65	5.3	157	12.8	867	70.9	133	10.9
Ohio	27	6.0	84	18.6	304	67.3	37	8.2
Rhode Island	30	4.3	86	12.3	509	72.9	73	10.5
All States	447	4.4	1,297	12.7	7,136	69.8	1,339	13.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-13. TA Survey (EOY): Q1a. The policies and procedures within the Test Administrator Manual were easy for me to understand.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	77	2.8	281	10.2	1,999	72.2	411	14.8
Colorado	4	2.2	22	12.4	137	77.0	15	8.4
D.C.	--	--	2	7.4	24	88.9	--	--
Illinois	41	2.3	168	9.6	1,281	73.4	255	14.6
Maryland	41	4.0	98	9.6	668	65.7	209	20.6
Massachusetts	24	3.3	91	12.5	540	74.3	72	9.9
Mississippi	--	--	4	5.6	50	70.4	17	23.9
New Jersey	150	4.3	431	12.3	2,498	71.2	430	12.3
New Mexico	13	4.0	36	11.1	239	73.5	37	11.4
Ohio	19	4.6	78	18.8	281	67.9	36	8.7
Rhode Island	--	--	5	11.6	29	67.4	9	20.9
All States	371	3.4	1,218	11.2	7,778	71.6	1,496	13.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-14. TA Survey (PBA): Q1b. The instructions (including scripts for administering the assessment) within the Test Administrator Manual were easy for me to implement.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	87	3.8	230	10.0	1,575	68.5	407	17.7
Colorado	4	3.1	19	14.5	89	67.9	19	14.5
D.C.	2	3.8	3	5.7	36	67.9	12	22.6
Illinois	82	3.8	185	8.5	1,499	68.7	416	19.1
Maryland	23	4.3	65	12.2	335	63.1	108	20.3
Massachusetts	20	3.0	70	10.5	468	70.0	111	16.6
Mississippi	4	4.4	6	6.7	59	65.6	21	23.3
New Jersey	92	5.1	243	13.4	1,224	67.4	258	14.2
New Mexico	67	5.5	144	11.8	865	70.8	146	11.9
Ohio	23	5.1	66	14.7	310	68.9	51	11.3
Rhode Island	23	3.3	69	9.9	505	72.3	101	14.5
All States	427	4.2	1,107	10.9	6,984	68.6	1,658	16.3

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-15. TA Survey (EOY): Q1b. The instructions (including scripts for administering the assessment) within the Test Administrator Manual were easy for me to implement.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	77	2.8	284	10.3	1,943	70.3	459	16.6
Colorado	3	1.7	21	11.8	135	75.8	19	10.7
D.C.	--	--	4	14.3	23	82.1	1	3.6
Illinois	40	2.3	140	8.1	1,228	70.7	329	18.9
Maryland	43	4.3	99	9.8	631	32.5	236	23.4
Massachusetts	20	2.8	62	8.6	539	74.3	104	14.3
Mississippi	--	--	5	7.0	48	67.6	18	25.4
New Jersey	127	3.6	348	10.0	2,486	71.3	527	15.1
New Mexico	15	4.6	29	9.0	243	75.2	36	11.1
Ohio	20	4.8	56	13.6	292	70.7	45	10.9
Rhode Island	--	--	1	2.3	31	72.1	11	25.6
All States	347	3.2	1,051	9.7	7,630	70.5	1,789	16.5

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-16. TA Survey (PBA): Q1c. Students appeared to understand the directions I read to them during test administration.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	68	3.0	192	8.4	1,638	71.3	400	17.4
Colorado	3	2.3	19	14.6	91	70.0	17	13.1
D.C.	3	5.7	8	15.1	34	64.2	8	15.1
Illinois	86	3.9	244	11.2	1,485	68.2	363	16.7
Maryland	23	4.3	79	14.9	340	64.0	89	16.8
Massachusetts	30	4.5	70	10.5	469	70.6	95	14.3
Mississippi	5	5.6	8	8.9	57	63.3	20	22.2
New Jersey	90	5.0	184	10.2	1,279	70.6	258	14.2
New Mexico	45	3.7	129	10.6	923	75.8	120	9.9
Ohio	26	5.8	66	14.7	316	70.5	40	8.9
Rhode Island	26	3.7	78	11.2	503	72.1	91	13.0
All States	406	4.0	1,081	10.6	7,157	70.5	1,508	14.9

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-17. TA Survey (EOY): Q1c. Students appeared to understand the directions I read to them during test administration.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	60	2.2	240	8.7	1,997	72.4	461	16.7
Colorado	6	3.4	19	10.8	129	73.3	22	12.5
D.C.	1	3.7	3	11.1	21	77.8	2	7.4
Illinois	34	2.0	148	8.5	1,250	72.0	304	17.5
Maryland	41	4.1	117	11.6	641	63.8	206	20.5
Massachusetts	16	2.2	80	11.0	536	73.7	95	13.1
Mississippi	--	--	4	5.6	48	67.6	19	26.8
New Jersey	117	3.4	292	8.4	2,564	73.4	518	14.8
New Mexico	14	4.3	28	8.7	243	75.2	38	11.8
Ohio	24	5.8	40	9.7	313	75.6	37	8.9
Rhode Island	1	2.3	3	7.0	29	67.4	10	23.3
All States	315	2.9	975	9.0	7,804	72.2	1,716	15.9

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-18. TA Survey (PBA): Q1d. The instructions I read to the students covered all of the information necessary to take the test.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	91	3.9	335	14.5	1,524	66.1	356	15.4
Colorado	5	3.8	33	25.0	83	62.9	11	8.3
D.C.	2	3.8	10	19.2	34	65.4	6	11.5
Illinois	98	4.5	368	16.9	1,389	63.6	328	15.0
Maryland	28	5.3	132	24.8	301	56.5	72	13.5
Massachusetts	35	5.2	163	24.4	394	59.0	76	11.4
Mississippi	3	3.4	7	7.9	57	64.0	22	24.7
New Jersey	121	6.7	371	20.4	1,102	60.6	224	12.3
New Mexico	87	7.1	265	21.7	112	63.2	97	7.9
Ohio	35	7.8	110	24.4	270	60.0	35	7.8
Rhode Island	40	5.7	117	16.8	465	66.6	76	10.9
All States	548	5.4	1,917	18.8	6,411	63.0	1,308	12.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-19. TA Survey (EOY): Q1d. The instructions I read to the students covered all of the information necessary to take the test.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	85	3.1	411	14.9	1,864	67.4	405	14.6
Colorado	7	3.9	39	21.9	115	64.6	17	9.6
D.C.	1	3.6	5	17.9	22	78.6	--	--
Illinois	47	2.7	257	14.9	1,157	66.9	269	15.5
Maryland	53	5.2	176	17.4	595	58.7	190	18.7
Massachusetts	25	3.4	134	18.4	491	67.4	78	10.7
Mississippi	1	1.4	9	12.7	42	59.2	19	26.8
New Jersey	156	4.5	585	16.7	2,325	66.5	432	12.3
New Mexico	19	5.9	52	16.2	218	67.9	32	10.0
Ohio	27	6.5	94	22.7	263	63.5	30	7.2
Rhode Island	2	4.8	4	9.5	29	69.0	7	16.7
All States	424	3.9	1,770	16.3	7,150	66.0	1,484	13.7

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-20. TA Survey (PBA): Q1a-1d Summary Table		
State	Mean	Standard Deviation
Arkansas	11.88	2.29
Colorado	11.49	2.07
D.C.	11.75	2.27
Illinois	11.79	2.29
Maryland	11.61	2.39
Massachusetts	11.57	2.25
Mississippi	12.10	2.89
New Jersey	11.38	2.41
New Mexico	11.35	2.22
Ohio	11.10	2.24
Rhode Island	11.61	2.17
All States	11.62	2.31

Note. α = .87. Scale scores were computed by taking the sum of items 1a-1d.

Table G-21. TA Survey (EOY): Q1a-1d Summary Table		
State	Mean	Standard Deviation
Arkansas	11.92	2.17
Colorado	11.58	1.94
D.C.	11.29	2.05
Illinois	12.01	2.08
Maryland	11.92	2.44
Massachusetts	11.69	2.01
Mississippi	12.69	2.07
New Jersey	11.69	2.24
New Mexico	11.54	2.29
Ohio	11.24	2.17
Rhode Island	12.35	1.91
All States	11.81	2.20

Note. α = .88. Scale scores were computed by taking the sum of items 1a-1d.

Table G-22. TA Survey (PBA): Q2. Please indicate if student(s) asked questions about the following topics. Select all that apply.[a]

	Clarification on Instructions		Technology-related Problems		Find/Use Tools		Navigate through Test		Mark Answers & Enter Responses		Exiting the Test When Finished		After Completed Test		Other	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	388	16.5	1,212	51.4	618	26.2	360	15.3	494	20.9	1,224	51.9	800	33.9	105	4.5
Colorado	32	23.5	84	61.8	53	39.0	37	27.2	40	29.4	74	54.4	44	32.4	14	10.3
D.C.	16	29.1	21	38.2	24	43.6	9	16.4	19	34.5	19	34.5	11	20.0	3	5.5
Illinois	576	25.4	1,330	58.7	799	35.3	500	22.1	710	31.4	1,232	54.4	640	28.3	148	6.5
Maryland	139	25.0	370	66.7	247	44.5	144	25.9	211	38.0	255	45.9	211	38.0	59	10.6
Massachusetts	189	27.3	477	68.8	299	43.1	171	24.7	237	34.2	389	56.1	180	26.0	56	8.1
Mississippi	13	14.1	46	50.0	29	31.5	12	13.0	16	17.4	40	43.5	24	26.1	3	3.3
New Jersey	408	21.3	1,129	58.8	662	34.5	408	21.3	505	26.3	999	52.0	710	37.0	149	7.8
New Mexico	262	20.9	796	63.4	443	35.3	260	20.7	338	26.9	614	48.9	364	29.0	116	9.2
Ohio	117	25.3	286	61.8	215	46.4	126	27.2	175	37.8	263	56.8	164	35.4	31	6.7
Rhode Island	127	17.7	433	60.3	260	36.2	120	16.7	190	26.5	401	55.8	177	24.7	40	5.6
All States[b]	2,275	21.6	6,207	58.9	3,665	34.8	2,156	20.4	2,942	27.9	5,528	52.4	3,339	31.7	725	6.9

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a response.

Table G-23. TA Survey (EOY): Q2. Please indicate if student(s) asked questions about the following topics. Select all that apply.[a]

	Clarification on Instructions		Technology-related Problems		Find/Use Tools		Navigate through Test		Mark Answers & Enter Responses		Exiting the Test When Finished		After Completed Test		Other	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	413	14.6	1,518	53.5	854	30.1	477	16.8	711	25.1	1,406	49.5	1,009	35.6	118	4.2
Colorado	40	21.9	106	57.9	59	32.2	38	20.8	54	29.5	101	55.2	58	31.7	15	8.2
D.C.	10	33.3	22	73.3	17	56.7	9	30.0	15	50.0	14	46.7	7	23.3	--	--
Illinois	333	18.5	1,031	57.2	624	34.6	373	20.7	609	33.8	955	53.0	478	26.5	135	7.5
Maryland	227	21.5	686	65.0	415	39.3	216	20.5	386	36.6	457	43.3	386	36.6	94	8.9
Massachusetts	186	24.7	519	69.0	327	43.5	185	24.6	294	39.1	426	56.6	198	26.3	68	9.0
Mississippi	5	6.9	32	44.4	20	27.8	7	9.7	13	18.1	35	48.6	24	33.3	1	1.4
New Jersey	641	17.6	2,160	59.2	1,207	33.1	663	18.2	1,050	28.8	1,935	53.1	1,244	34.1	248	6.8
New Mexico	73	22.1	189	57.3	105	31.8	69	20.9	99	30.0	166	50.3	116	35.2	26	7.9
Ohio	90	20.8	273	63.0	168	38.8	95	21.9	138	31.9	236	54.5	145	33.5	38	8.8
Rhode Island	8	18.2	25	56.8	16	36.4	6	13.6	16	36.4	24	54.5	8	18.2	5	11.4
All States[b]	2,034	18.1	6,588	58.7	3,826	34.1	2,942	27.9	3,399	30.3	5,777	51.4	3,692	32.9	751	6.7

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a response.

Table G-24. TA Survey (PBA): Q3. Please indicate if any of the following technology-related problems occurred during testing. Be sure to respond based on the type of assessment you most recently administered (i.e., either PBA or EOY). Select all that apply.[a]

	No Problems		Student Log-On		Device(s) Stopped Working		Devices Worked Slowly		Lost Internet Connectivity		System Disconnect or Log-Out During Administration		TestNav Online Tools Did Not Work		Accessibility Features Did Not Work		Other	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	322	13.7	1,135	48.1	866	36.7	640	27.1	564	23.9	1,164	49.4	255	10.8	137	5.8	198	8.4
Colorado	14	10.3	68	50.0	74	54.4	48	35.3	31	22.8	73	53.7	27	19.9	15	11.0	21	15.4
D.C.	6	10.9	29	52.7	21	38.2	12	21.8	9	16.4	17	30.9	6	10.9	4	7.3	5	9.1
Illinois	207	9.1	1,195	52.8	997	44.0	626	27.7	558	24.6	1,238	54.7	358	15.8	200	8.8	305	13.5
Maryland	32	5.8	343	61.8	334	60.2	220	39.6	203	36.6	367	66.1	117	21.1	68	12.3	81	14.6
Massachusetts	55	7.9	398	57.4	369	56.2	236	34.1	187	27.0	389	56.1	158	22.8	79	11.4	105	15.2
Mississippi	4	4.3	48	52.2	39	42.4	29	31.5	23	25.0	66	71.7	13	14.1	6	6.5	3	3.3
New Jersey	222	11.6	942	49.1	741	38.6	535	27.9	407	21.2	891	46.4	347	18.1	158	8.2	257	13.4
New Mexico	78	6.2	725	57.7	728	58.0	501	39.9	425	33.8	879	70.0	232	18.5	144	11.5	197	15.7
Ohio	37	8.0	261	56.4	222	47.9	151	32.6	119	25.7	243	52.5	86	18.6	59	12.7	78	16.8
Rhode Island	84	11.7	385	53.6	273	38.0	178	24.8	135	18.8	311	43.3	128	17.8	58	8.1	92	12.8
All States[b]	1,065	10.1	5,548	52.6	4,675	44.3	3,188	30.2	2,676	25.4	5,652	53.6	1,734	16.4	933	8.8	1,343	12.7

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a response.

Table G-25. TA Survey (EOY): Q3. Please indicate if any of the following technology-related problems occurred during testing. Be sure to respond based on the type of assessment you most recently administered (i.e., either PBA or EOY). Select all that apply.[a]

	No Problems		Student Log-On		Device(s) Stopped Working		Devices Worked Slowly		Lost Internet Connectivity		System Disconnect or Log-Out During Administration		TestNav Online Tools Did Not Work		Accessibility Features Did Not Work		Other	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	334	11.8	1,379	48.6	1,133	39.9	971	34.2	760	26.8	1,437	50.6	361	12.7	164	5.8	212	7.5
Colorado	12	6.6	111	60.7	102	55.7	81	44.3	78	42.6	113	61.7	50	27.3	28	15.3	26	14.2
D.C.	4	13.3	14	46.7	11	36.7	12	40.0	12	40.0	14	46.7	7	23.3	1	3.3	4	13.3
Illinois	219	12.1	933	51.7	738	40.9	514	28.5	442	24.5	958	53.1	264	14.6	147	8.2	181	10.0
Maryland	67	6.3	659	62.4	573	54.3	1\418	39.6	372	35.2	696	65.9	154	14.6	78	7.4	117	11.1
Massachusetts	47	6.3	453	60.2	385	51.2	288	38.3	286	38.0	427	56.8	139	18.5	83	11.0	90	12.0
Mississippi	13	18.1	37	51.4	27	37.5	20	27.8	17	23.6	42	58.3	12	16.7	9	12.5	8	11.1
New Jersey	537	14.7	1,725	47.3	1,436	39.4	1,067	29.3	884	24.2	1,692	46.4	532	14.6	295	8.1	327	9.0
New Mexico	35	10.6	186	56.4	165	50.0	139	42.1	110	33.3	209	63.3	61	18.5	41	12.4	38	11.5
Ohio	42	9.7	232	53.6	203	46.9	146	33.7	126	29.1	241	55.7	76	17.6	44	10.2	60	13.9
Rhode Island	9	20.5	19	43.2	16	36.4	8	18.2	5	11.4	20	45.5	6	13.6	3	6.8	7	15.9
All States[b]	1,322	11.8	5,772	51.4	4,807	42.8	3,680	32.8	3,106	27.7	5,875	52.3	1,668	14.9	896	8.0	1,073	9.6

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a response.

Table G-26. TA Survey (PBA): Q4. Did your students have sufficient time to finish the test?

	Very Early		On Time		Rush to Finish		Did Not Finish	
State	n	%	n	%	n	%	n	%
Arkansas	1,297	56.8	946	41.4	35	1.5	7	0.3
Colorado	66	50.8	56	43.1	3	2.3	5	3.8
D.C.	19	37.3	28	54.9	4	7.8	--	--
Illinois	1,186	54.5	949	43.6	33	1.5	9	0.4
Maryland	318	60.3	200	38.0	6	1.1	3	0.6
Massachusetts	137	20.9	428	65.1	66	10.0	26	4.0
Mississippi	25	29.4	57	67.1	3	3.5	--	--
New Jersey	901	50.4	844	47.3	30	1.7	11	0.6
New Mexico	332	27.3	746	61.2	107	8.8	33	2.7
Ohio	170	37.9	252	56.1	19	4.2	8	1.8
Rhode Island	319	46.0	361	52.1	9	1.3	4	0.6
All States	4,788	47.4	4,881	48.4	315	3.1	108	1.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-27. TA Survey (EOY): Q4. Did your students have sufficient time to finish the test?

	Very Early		On Time		Rush to Finish		Did Not Finish	
State	n	%	n	%	n	%	n	%
Arkansas	1,704	62.2	1,003	36.6	20	0.7	11	0.4
Colorado	104	57.8	71	39.4	3	1.7	2	1.1
D.C.	14	51.9	13	48.1	--	--	--	--
Illinois	971	56.3	731	42.4	21	1.2	1	0.1
Maryland	661	65.4	338	33.5	11	1.1	--	--
Massachusetts	231	32.4	435	61.0	37	5.2	10	1.4
Mississippi	23	32.4	45	63.4	2	2.8	1	1.4
New Jersey	1,981	57.1	1,424	41.1	47	1.4	15	0.4
New Mexico	89	27.8	202	63.1	23	7.2	6	1.9
Ohio	159	38.7	239	58.2	13	3.2	--	--
Rhode Island	16	38.1	24	57.1	2	4.8	--	--
All States	5,972	55.6	4,546	42.3	180	1.7	46	0.4

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Accessibility Features and Accommodations

Table G-28. TA Survey (PBA): Q1. Did you read the "PARCC Accessibility Features and Accommodations Manual" prior to administration?

	Yes		No	
State	n	%	n	%
Arkansas	1,956	86.0	319	14.0
Colorado	99	75.6	32	24.4
D.C.	39	75.0	13	25.0
Illinois	1,761	80.9	416	19.1
Maryland	385	72.6	145	27.4
Massachusetts	568	85.7	95	14.3
Mississippi	65	75.6	21	24.4
New Jersey	1,481	82.7	309	17.3
New Mexico	1,010	82.9	209	17.1
Ohio	377	83.8	73	16.2
Rhode Island	588	85.5	100	14.5
All States	8,355	82.8	1,740	17.2

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-29. TA Survey (EOY): Q1. Did you read the "PARCC Accessibility Features and Accommodations Manual" prior to administration?

	Yes		No	
State	n	%	n	%
Arkansas	2,266	82.8	471	17.2
Colorado	141	78.3	39	21.7
D.C.	24	85.7	4	14.3
Illinois	1,379	79.6	354	20.4
Maryland	730	72.5	277	27.5
Massachusetts	582	81.4	133	18.6
Mississippi	60	84.5	11	15.5
New Jersey	2,860	82.5	607	17.5
New Mexico	264	83.0	54	17.0
Ohio	355	86.6	55	13.4
Rhode Island	32	80.0	8	20.0
All States	8,729	81.2	2,016	18.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-30. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

PARCC Accessibility Features & Accommodations Manual—3rd Edition

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	58	2.6	206	9.3	1,457	65.6	210	9.5	290	13.1
Colorado	2	1.6	10	8.1	58	46.8	8	6.5	46	37.1
D.C.	1	2.0	2	4.1	32	65.3	5	10.2	9	18.4
Illinois	61	2.9	221	10.5	1,156	55.2	160	7.6	498	23.8
Maryland	16	3.1	49	9.6	260	50.7	46	9.0	142	27.7
Massachusetts	24	3.8	102	16.2	365	58.1	31	4.9	106	16.9
Mississippi	2	2.5	5	6.3	44	55.0	13	16.3	16	20.0
New Jersey	98	5.8	288	17.0	907	53.5	94	5.5	309	18.2
New Mexico	60	5.1	174	14.8	691	58.7	45	3.8	207	17.6
Ohio	17	3.9	74	17.1	228	52.7	18	4.2	96	22.2
Rhode Island	33	5.0	89	13.6	382	58.3	39	6.0	112	17.1
All States	372	3.8	1,226	12.6	5,596	57.7	671	6.9	1,838	18.9

Accessibility & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	53	2.4	235	10.7	1,315	59.6	185	8.4	417	18.9
Colorado	2	1.6	15	12.2	43	35.0	2	1.6	61	49.6
D.C.	1	2.0	1	2.0	28	57.1	4	8.2	15	30.6
Illinois	73	3.5	242	11.6	924	44.3	117	5.6	728	34.9
Maryland	20	4.0	53	10.5	195	38.5	27	5.3	211	41.7
Massachusetts	31	5.0	120	19.3	303	48.8	16	2.6	151	24.3
Mississippi	1	1.3	7	8.9	40	50.6	8	10.1	23	29.1
New Jersey	110	6.6	286	17.1	781	46.7	76	4.5	418	25.0
New Mexico	69	5.9	206	17.7	547	47.1	31	2.7	309	26.6
Ohio	17	3.9	83	19.0	202	46.3	14	3.2	120	27.5
Rhode Island	36	5.5	101	15.6	291	44.8	21	3.2	200	30.8
All States	414	4.3	1,357	14.1	4,684	48.7	501	5.2	2,660	27.7

Personal Needs Profile Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	61	2.8	258	11.8	1,070	49.0	150	6.9	646	29.6
Colorado	2	1.6	10	8.1	32	26.0	3	2.4	76	61.8
D.C.	1	2.0	2	4.0	19	38.0	4	8.0	24	48.0
Illinois	75	3.6	249	12.1	632	30.6	64	3.1	1,043	50.6
Maryland	21	4.2	60	11.9	147	29.2	10	2.0	266	52.8
Massachusetts	31	5.0	125	20.1	204	32.9	5	0.8	256	41.2
Mississippi	1	1.3	5	6.6	34	44.7	5	6.6	31	40.8
New Jersey	113	6.8	281	16.9	592	35.5	44	2.6	636	38.2
New Mexico	66	5.7	222	19.2	405	35.0	24	2.1	440	38.0
Ohio	17	3.9	79	18.3	151	35.0	14	3.2	171	39.6
Rhode Island	37	5.8	102	15.9	215	33.6	15	2.3	271	42.3
All States	426	4.5	1,401	14.7	3,514	36.8	338	3.5	3,868	40.5

(continued)

Table G-30. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Personal Needs Profile Field Definitions

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	32	2.8	244	11.2	1,083	49.6	158	7.2	638	29.2
Colorado	2	1.6	8	6.6	33	27.0	3	2.5	76	62.3
D.C.	1	2.0	2	4.0	19	38.0	5	10.0	23	46.0
Illinois	76	3.7	236	11.5	655	32.0	72	3.5	1,009	49.3
Maryland	20	4.0	62	12.6	150	30.4	10	2.0	252	51.0
Massachusetts	31	5.0	129	20.8	204	33.0	5	0.8	250	40.4
Mississippi	1	1.3	6	7.7	36	46.2	4	5.1	31	39.7
New Jersey	111	6.7	286	17.2	580	34.9	53	3.2	630	38.0
New Mexico	68	5.9	213	18.5	419	36.4	28	2.4	422	36.7
Ohio	18	4.2	81	18.8	157	36.5	12	2.8	162	37.7
Rhode Island	37	5.8	103	16.1	235	36.7	16	2.5	249	38.9
All States	428	4.5	1,378	14.5	3,584	37.7	366	3.9	3,750	39.4

Training or resources from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	102	4.6	356	16.2	982	44.7	139	6.3	618	28.1
Colorado	6	4.9	17	13.8	21	17.1	5	4.1	74	60.2
D.C.	1	2.0	3	6.1	17	34.7	3	6.1	25	51.0
Illinois	143	6.9	316	15.3	532	25.8	68	3.3	1,003	48.6
Maryland	29	5.8	72	14.4	108	21.6	15	3.0	277	55.3
Massachusetts	61	9.7	150	23.9	179	28.5	8	1.3	229	36.5
Mississippi	2	2.6	12	15.6	30	39.0	7	9.1	26	33.8
New Jersey	224	13.5	352	21.2	497	29.9	37	2.2	554	33.3
New Mexico	199	17.1	295	25.4	311	26.7	21	1.8	337	29.0
Ohio	54	12.4	89	20.5	139	32.0	4	0.9	148	34.1
Rhode Island	80	12.4	118	18.3	197	30.5	23	3.6	227	35.2
All States	906	9.5	1,790	18.7	3,018	31.5	332	3.5	3,527	36.8

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	60	2.7	193	8.7	1,246	56.3	426	19.3	287	13.0
Colorado	8	6.6	15	12.3	34	27.9	10	8.2	55	45.1
D.C.	1	2.0	4	8.0	22	44.0	4	8.0	19	38.0
Illinois	92	4.4	228	10.9	876	41.8	404	19.3	497	23.7
Maryland	31	6.1	68	13.3	163	31.9	31	6.1	218	42.7
Massachusetts	41	6.5	123	19.5	250	39.7	51	8.1	165	26.2
Mississippi	1	1.3	5	6.4	44	56.4	14	17.9	14	17.9
New Jersey	137	8.0	267	15.6	837	49.0	251	14.7	216	12.6
New Mexico	103	8.7	247	20.9	530	45.0	96	8.1	203	17.2
Ohio	21	4.8	61	13.9	210	47.8	65	14.8	82	18.7
Rhode Island	65	9.9	112	17.0	289	43.9	71	10.8	122	18.5
All States	563	5.8	1,328	13.7	4,512	46.4	1,428	14.7	1,886	19.4

(continued)

Table G-30. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	49	2.2	139	6.3	1,338	60.2	575	25.9	120	5.4
Colorado	5	3.9	17	13.4	62	48.8	28	22.0	15	11.8
D.C.	1	2.0	5	9.8	34	66.7	11	21.6	--	--
Illinois	69	3.3	165	7.8	978	46.5	629	29.9	264	12.5
Maryland	31	6.0	42	8.2	267	51.9	96	18.7	78	15.2
Massachusetts	34	5.4	82	13.0	350	55.3	117	18.5	50	7.9
Mississippi	1	1.3	4	5.0	49	61.3	18	22.5	8	10.0
New Jersey	108	6.3	221	13.0	918	53.8	338	19.8	120	7.0
New Mexico	66	5.6	169	14.3	632	53.3	216	18.2	102	8.6
Ohio	22	5.0	51	11.6	223	50.8	82	18.7	61	13.9
Rhode Island	44	6.7	81	12.3	336	50.9	125	18.9	74	11.2
All States	432	4.4	981	10.1	5,200	53.3	2,244	23.0	894	9.2

Note. Percentages are based on the valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-31. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

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	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	58	2.2	251	9.5	1,687	64.0	249	9.4	390	14.8
Colorado	3	1.8	26	15.5	106	63.1	4	2.4	29	17.3
D.C.	--	--	4	14.3	15	53.6	2	7.1	7	25.0
Illinois	30	1.8	170	10.2	947	56.6	134	8.0	393	23.5
Maryland	23	2.4	89	9.2	528	54.7	85	8.8	241	24.9
Massachusetts	17	2.5	104	15.4	359	53.3	31	4.6	163	24.2
Mississippi	--	--	6	8.6	48	68.6	6	8.6	10	14.3
New Jersey	135	4.1	455	13.9	1,946	59.3	189	5.8	558	17.0
New Mexico	19	6.1	38	12.3	177	57.3	14	4.5	61	19.7
Ohio	20	5.1	85	21.5	204	51.6	19	4.8	67	17.0
Rhode Island	--	--	5	12.5	23	57.5	3	7.5	9	22.5
All States	308	3.0	1,237	12.0	6,063	59.0	741	7.2	1,931	18.8

Accessibility & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	60	2.3	287	10.9	1,544	58.7	197	7.5	542	20.6
Colorado	3	1.8	29	17.6	84	50.9	4	2.4	45	27.3
D.C.	--	--	1	3.6	17	60.7	2	7.1	8	28.6
Illinois	35	2.1	186	11.2	755	45.4	88	5.3	598	36.0
Maryland	22	2.3	109	11.4	422	44.2	63	6.6	339	35.5
Massachusetts	19	2.8	115	17.2	289	43.3	21	3.1	223	33.4
Mississippi	--	--	8	11.4	44	62.9	4	5.7	14	20.0
New Jersey	155	4.8	504	15.5	1,650	50.9	151	4.7	782	24.1
New Mexico	20	6.5	41	13.3	153	49.7	7	2.3	87	28.2
Ohio	23	5.9	87	22.3	153	39.1	15	3.8	113	28.9
Rhode Island	--	--	6	15.0	21	52.5	--	--	13	32.5
All States	340	3.3	1,379	13.5	5,151	50.5	557	5.5	2,767	27.1

Personal Needs Profile Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	65	2.5	332	12.7	1,262	48.5	151	5.8	794	30.5
Colorado	4	2.4	28	16.8	61	36.5	4	2.4	70	41.9
D.C.	--	--	3	10.7	9	32.1	1	3.6	15	53.6
Illinois	40	2.4	218	13.2	535	32.4	49	3.0	811	49.1
Maryland	31	3.2	123	12.9	266	27.9	38	4.0	497	52.0
Massachusetts	19	2.9	120	18.1	198	29.9	16	2.4	310	46.8
Mississippi	--	--	7	10.0	41	58.6	5	7.1	17	24.3
New Jersey	170	5.3	539	16.6	1,237	38.2	111	3.4	1,181	36.5
New Mexico	19	6.2	44	14.4	121	39.5	10	3.3	112	36.6
Ohio	24	6.3	86	22.4	118	30.7	9	2.6	147	38.3
Rhode Island	--	--	8	20.5	13	33.3	--	--	18	46.2
All States	374	3.7	1,517	15.0	3,874	38.2	298	3.9	3,979	39.2

(continued)

Table G-31. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Personal Needs Profile Field Definitions

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	62	2.4	324	12.5	1,269	48.9	154	5.9	788	30.3
Colorado	4	2.4	27	16.2	58	34.7	4	2.4	74	44.3
D.C.	--	--	3	11.5	9	34.6	1	3.8	13	50.0
Illinois	44	2.7	215	13.1	528	32.3	47	2.9	801	49.0
Maryland	30	3.1	119	12.5	281	29.5	43	4.5	481	50.4
Massachusetts	17	2.6	114	17.1	205	30.8	16	2.4	314	47.1
Mississippi	--	--	8	12.1	40	60.6	3	4.5	15	22.7
New Jersey	169	5.3	539	16.8	1,217	37.9	107	3.3	1,176	36.7
New Mexico	16	5.2	45	14.7	126	41.0	8	2.6	112	36.5
Ohio	28	7.2	81	20.9	124	32.0	9	2.3	145	37.5
Rhode Island	--	--	8	20.0	15	37.5	--	--	17	42.5
All States	372	3.7	1,491	14.8	3,886	38.5	396	3.9	3,943	39.1

Training or resources from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	126	4.8	438	16.8	1,165	44.7	150	5.8	727	27.9
Colorado	9	5.4	33	19.9	51	30.7	6	3.6	67	40.4
D.C.	--	--	2	7.1	10	35.7	1	3.6	15	53.6
Illinois	96	5.8	253	15.3	439	26.6	48	2.9	813	49.3
Maryland	56	5.9	140	14.9	232	24.6	41	4.4	473	50.2
Massachusetts	47	7.1	142	21.5	146	22.1	15	2.3	310	47.0
Mississippi	3	4.3	11	15.9	33	47.8	6	8.7	16	23.2
New Jersey	317	9.8	658	20.4	1,065	33.1	115	3.6	1,065	33.1
New Mexico	37	12.2	63	20.8	94	31.0	11	3.6	98	32.3
Ohio	53	13.7	94	24.4	91	23.6	7	1.8	141	36.5
Rhode Island	2	5.0	10	25.0	12	30.0	1	2.5	15	37.5
All States	747	7.4	1,856	18.4	3,351	33.2	403	4.0	3,747	37.1

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	71	2.7	251	9.5	1,485	56.1	461	17.4	378	14.3
Colorado	8	4.7	26	15.4	66	39.1	14	8.3	55	32.5
D.C.	--	--	3	11.1	8	29.6	2	7.4	14	51.9
Illinois	62	3.7	186	11.1	725	43.4	294	17.6	402	24.1
Maryland	51	5.4	137	14.4	323	34.0	82	8.6	358	37.6
Massachusetts	34	5.0	112	16.5	270	39.9	57	8.4	204	30.1
Mississippi	1	1.4	7	10.0	39	55.7	10	14.3	13	18.6
New Jersey	169	5.1	461	13.9	1,671	50.4	575	17.3	441	13.3
New Mexico	28	9.1	43	14.0	144	46.9	32	10.4	60	19.5
Ohio	23	5.8	54	13.6	186	46.9	75	18.9	59	14.9
Rhode Island	1	2.5	5	12.5	17	42.5	6	15.0	11	27.5
All States	449	4.4	1,291	12.5	4,955	48.1	1,612	15.6	2,000	19.4

(continued)

Table G-31. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	67	2.5	179	6.7	1,626	61.3	629	23.7	153	5.8
Colorado	8	4.7	16	9.3	100	58.1	39	22.7	9	5.2
D.C.	--	--	1	3.7	20	74.1	5	18.5	1	3.7
Illinois	50	3.0	124	7.4	847	50.5	430	25.7	225	13.4
Maryland	28	2.9	66	6.9	549	57.0	214	22.2	106	11.0
Massachusetts	28	4.1	86	12.6	388	56.8	98	14.3	83	12.2
Mississippi	2	2.9	5	7.2	43	62.3	14	20.3	5	7.2
New Jersey	124	3.7	336	10.1	1,825	54.8	794	23.9	250	7.5
New Mexico	19	6.1	23	7.4	169	54.2	67	21.5	34	10.9
Ohio	19	4.8	46	11.6	193	48.7	85	21.5	53	13.4
Rhode Island	1	2.6	2	5.1	15	38.5	13	33.3	8	20.5
All States	347	3.4	888	8.6	5,797	56.0	2,395	23.1	931	9.0

Note. Percentages are based on the valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-32. TA Survey (PBA): Q3. Did you administer the following accessibility features or accommodations to any of your students? Select all that apply.[a]

	Human Reader Math		Human Reader English		Human Scribe		Human Signer		Test Directions Native Language		Text-to-Speech		Extended Time		Word Prediction Device		Calculator on Non-Calculator Section		Other Tech Device	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	144	6.1	74	3.1	13	0.6	8	0.3	100	4.2	145	6.1	630	26.7	9	0.4	211	8.9	27	1.1
Colorado	6	4.4	3	2.2	5	3.7	1	0.7	6	4.4	10	7.4	34	25.0	5	3.7	6	4.4	2	1.5
D.C.	8	14.5	4	7.3	3	5.5	1	1.8	3	5.5	2	3.6	22	40.0	--	--	8	14.5	3	5.5
Illinois	238	10.5	100	4.4	208	9.2	7	0.3	129	5.7	128	5.7	769	34.0	18	0.8	330	14.6	36	1.6
Maryland	71	12.8	61	11.0	65	11.7	2	0.4	18	3.2	25	4.5	204	36.8	1	0.2	105	18.9	17	3.1
Massachusetts	80	11.5	57	8.2	61	8.8	3	0.4	34	4.9	35	5.1	276	39.8	6	0.9	69	10.0	6	0.9
Mississippi	1	1.1	1	1.1	1	1.1	--	--	--	--	--	--	13	14.1	--	--	1	1.1	--	--
New Jersey	79	4.1	70	3.6	50	2.6	3	0.2	82	4.3	103	5.4	623	32.4	17	0.9	367	19.1	34	1.8
New Mexico	90	7.2	53	4.2	31	2.5	7	0.6	71	5.7	102	8.1	334	26.6	4	0.3	108	8.6	28	2.2
Ohio	19	4.1	10	2.2	43	9.3	3	0.6	22	4.8	52	11.2	165	35.6	3	0.6	81	17.5	6	1.3
Rhode Island	37	5.2	16	2.2	14	1.9	--	--	19	2.6	33	4.6	213	29.7	8	1.1	37	5.2	9	1.3
All States[b]	775	7.3	451	4.3	495	4.7	35	0.3	484	4.6	636	6.0	3,288	31.2	71	0.7	1,327	12.6	168	1.6

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a response.

Table G-33. TA Survey (EOY): Q3. Did you administer the following accessibility features or accommodations to any of your students? Select all that apply.[a]

	Human Reader Math		Human Reader English		Human Scribe		Human Signer		Test Directions Native Language		Text-to-Speech		Extended Time		Word Prediction Device		Calculator on Non-Calculator Section		Other Tech Device	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	174	6.1	74	2.6	24	0.8	6	0.2	107	3.8	185	6.5	774	27.3	8	0.3	231	8.1	32	1.1
Colorado	10	5.5	4	2.2	4	2.2	2	1.1	10	5.5	13	7.1	38	20.8	8	4.4	6	3.3	5	2.7
D.C.	7	23.3	1	3.3	2	6.7	--	--	1	3.3	3	10.0	18	60.0	2	6.7	10	33.3	3	10.0
Illinois	180	10.0	86	4.8	112	6.2	3	0.2	70	3.9	113	6.3	562	31.2	16	0.9	292	16.2	25	1.4
Maryland	179	17.0	142	13.4	162	15.3	3	0.3	28	2.7	44	4.2	432	40.9	8	0.8	281	26.6	15	1.4
Massachusetts	80	10.6	44	5.9	51	6.8	--	--	21	2.8	35	4.7	273	36.3	5	0.7	63	8.4	8	1.1
Mississippi	2	2.8	2	2.8	1	1.4	1	1.4	4	5.6	2	2.8	15	20.8	--	--	2	2.8	1	1.4
New Jersey	194	5.3	158	4.3	86	2.4	9	0.2	151	4.1	250	6.9	1,261	34.6	25	0.7	814	22.3	48	1.3
New Mexico	39	11.8	21	6.4	9	2.7	2	0.6	28	8.5	23	7.0	101	30.6	3	0.9	37	11.2	8	2.4
Ohio	35	8.1	19	4.4	32	7.4	1	0.2	24	5.5	56	12.9	164	37.9	1	0.2	73	16.9	5	1.2
Rhode Island	2	4.5	--	--	1	2.3	--	--	1	2.3	1	2.3	13	29.5	--	--	2	4.5	--	--
All States[b]	906	8.1	553	4.9	486	4.3	27	0.2	449	4.0	730	6.5	3,664	32.6	76	0.7	1,820	16.2	151	1.3

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a response.

Table G-34. TA Survey (PBA): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix A: Accessibility Features & Accommodations for Students taking the Paper-Based PARCC Assessments

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	37	1.7	68	3.2	535	25.0	71	3.3	1,432	66.8
Colorado	--	--	4	3.4	19	16.0	--	--	96	80.7
D.C.	1	2.0	2	4.0	12	24.0	3	6.0	32	64.0
Illinois	34	1.7	64	3.2	368	18.5	53	2.7	1,468	73.9
Maryland	12	2.5	11	2.3	78	16.0	14	2.9	373	76.4
Massachusetts	12	2.0	31	5.2	121	20.1	8	1.3	429	71.4
Mississippi	2	2.5	3	3.7	22	27.2	3	3.7	51	63.0
New Jersey	46	2.9	100	6.4	285	18.2	31	2.0	1,101	70.4
New Mexico	31	2.8	54	4.9	228	20.6	16	1.4	776	70.2
Ohio	10	2.4	23	5.5	80	19.3	5	1.2	297	71.6
Rhode Island	14	2.2	29	4.7	122	19.6	14	2.2	444	71.3
All States	199	2.2	392	4.3	1,877	20.4	218	2.4	6,518	70.8

Appendix B: Test Administration Protocol for the Human Reader Accommodations for ELA/L and the Human Reader Accessibility Feature for Math

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	39	1.8	76	3.6	528	24.8	64	3.0	1,425	66.8
Colorado	--	--	5	4.2	14	11.9	1	0.8	98	83.1
D.C.	1	2.0	1	2.0	13	26.5	4	8.2	30	61.2
Illinois	39	2.0	77	3.9	385	19.5	60	3.0	1,413	71.6
Maryland	12	2.5	14	2.9	97	20.0	14	2.9	348	71.8
Massachusetts	13	2.2	31	5.2	128	21.4	12	2.0	414	69.2
Mississippi	1	1.3	3	3.8	22	27.5	1	1.3	53	66.3
New Jersey	55	3.5	90	5.8	251	16.1	28	1.8	1,132	72.8
New Mexico	34	3.1	59	5.4	213	19.4	14	1.3	779	70.9
Ohio	13	3.2	23	5.6	83	20.3	4	0.9	285	69.9
Rhode Island	13	2.1	33	5.3	104	16.7	14	2.3	458	73.6
All States	220	2.4	414	4.5	1,843	20.1	217	2.4	6,455	70.6

Appendix C: Protocol for the Use of the Scribe and for Transcribing Student Responses

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	33	1.6	64	3.0	477	22.5	52	2.4	1,497	70.5
Colorado	--	--	3	2.6	18	15.4	--	--	96	82.1
D.C.	1	2.0	--	--	12	24.5	3	6.1	33	67.3
Illinois	40	2.0	76	3.8	382	19.3	58	2.9	1,423	71.9
Maryland	11	2.2	15	3.1	98	20.0	15	3.1	351	71.6
Massachusetts	12	2.0	34	5.7	106	17.8	11	1.8	432	72.6
Mississippi	1	1.3	3	3.8	18	22.8	1	1.3	56	70.9
New Jersey	47	3.0	91	5.9	229	14.8	25	1.6	1,156	74.7
New Mexico	33	3.0	55	5.0	182	16.6	14	1.3	811	74.1
Ohio	12	2.9	27	6.6	94	23.0	7	1.7	269	65.8
Rhode Island	13	2.1	25	4.0	100	16.2	11	1.8	470	75.9
All States	203	2.2	396	4.3	1,722	18.9	198	2.2	6,613	72.4

(continued)

Table G-34. TA Survey (PBA): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix E: Guidance for Selecting and Administering the Extended Time Accommodation

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	39	1.8	70	3.3	783	36.7	110	5.2	1,129	53.0
Colorado	1	0.8	6	5.1	25	21.2	2	1.7	84	71.2
D.C.	1	2.0	2	4.1	19	38.8	5	10.2	22	44.9
Illinois	43	2.2	91	4.6	630	31.9	111	5.6	1,103	55.8
Maryland	10	2.1	23	4.7	151	31.1	29	6.0	273	56.2
Massachusetts	16	2.7	37	6.2	215	35.9	19	3.2	312	52.1
Mississippi	1	1.3	3	3.8	22	27.5	6	7.5	48	60.0
New Jersey	53	3.4	124	8.0	471	30.3	71	4.6	837	53.8
New Mexico	36	3.2	73	6.6	332	30.0	28	2.5	639	57.7
Ohio	12	2.9	27	6.6	159	38.6	13	3.2	201	48.8
Rhode Island	16	2.6	27	4.3	202	32.2	26	4.1	356	56.8
All States	228	2.5	486	5.3	3,016	32.9	421	4.6	5,022	54.7

Appendix I: PARCC ELA Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	38	1.8	78	3.7	653	30.7	88	4.1	1,268	59.7
Colorado	1	0.8	5	4.2	25	21.0	2	1.7	86	72.3
D.C.	1	2.0	1	2.0	10	20.4	4	8.2	33	67.3
Illinois	42	2.1	92	4.7	436	22.0	67	3.4	1,341	67.8
Maryland	10	2.1	15	3.1	107	22.2	15	3.1	336	69.6
Massachusetts	19	3.2	39	6.5	139	23.3	11	1.8	389	65.2
Mississippi	1	1.2	5	6.2	24	29.6	3	3.7	48	59.3
New Jersey	58	3.7	108	7.0	353	22.7	38	2.4	995	64.1
New Mexico	37	3.4	79	7.2	277	25.1	20	1.8	689	62.5
Ohio	13	3.2	38	9.3	116	28.4	7	1.7	234	57.4
Rhode Island	18	2.9	32	5.1	142	22.7	18	2.9	415	66.4
All States	238	2.6	495	5.4	2,287	25.0	274	3.0	5,854	64.0

Appendix J: PARCC Math Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	40	1.9	74	3.5	699	33.0	97	4.6	1,208	57.0
Colorado	2	1.7	6	5.1	29	24.6	1	0.8	80	67.8
D.C.	1	2.1	1	2.1	9	18.8	6	12.5	31	64.6
Illinois	42	2.1	93	4.7	461	23.4	68	3.5	1,306	66.3
Maryland	12	2.5	18	3.7	105	21.5	17	3.5	336	68.9
Massachusetts	18	3.0	41	6.9	152	25.5	11	1.8	373	62.7
Mississippi	1	1.3	4	5.0	22	27.5	2	2.5	51	63.8
New Jersey	54	3.5	110	7.1	358	23.1	39	2.5	989	63.8
New Mexico	41	3.7	84	7.6	283	25.8	21	1.9	670	61.0
Ohio	13	3.2	40	9.8	126	31.0	7	1.7	221	54.3
Rhode Island	15	2.4	35	5.6	143	23.1	16	2.6	411	66.3
All States	239	2.6	509	5.6	2,393	26.2	286	3.1	5,696	62.4

(continued)

Table G-34. TA Survey (PBA): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Assistive Technology Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	40	1.9	79	3.7	604	28.6	68	3.2	1,323	62.6
Colorado	2	1.7	9	7.6	16	13.4	--	--	92	77.3
D.C.	1	2.0	2	4.1	10	20.4	4	8.2	32	65.3
Illinois	40	2.0	81	4.1	343	17.5	50	2.6	1,441	73.7
Maryland	10	2.1	18	3.7	79	16.3	8	1.6	370	76.3
Massachusetts	18	3.0	38	6.4	111	18.8	9	1.5	416	70.3
Mississippi	1	1.3	3	3.8	22	27.5	1	1.3	53	66.3
New Jersey	55	3.5	110	7.1	278	17.9	33	2.1	1,075	69.3
New Mexico	42	3.9	74	6.8	211	19.4	17	1.6	746	68.4
Ohio	11	2.7	37	9.1	87	21.4	5	1.2	266	65.5
Rhode Island	15	2.4	28	4.6	114	18.6	15	2.4	442	72.0
All States	235	2.6	482	5.3	1,883	20.7	210	2.3	6,275	69.1

PARCC Technical Assistance Bulletin – PARCC Assessments and Students with Visual Impairment, Including Blindness

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	36	1.7	64	3.0	482	22.8	47	2.2	1,485	70.2
Colorado	--	--	3	2.5	11	9.3	--	--	104	88.1
D.C.	2	4.1	--	--	8	16.3	3	6.1	36	73.5
Illinois	35	1.8	57	2.9	263	13.3	34	1.7	1,586	80.3
Maryland	9	1.9	10	2.1	55	11.3	5	1.0	407	83.7
Massachusetts	12	2.0	28	4.7	84	14.1	7	1.2	465	78.0
Mississippi	1	1.3	3	3.8	19	24.4	1	1.3	54	69.2
New Jersey	47	3.0	79	5.1	201	13.0	21	1.4	1,203	77.6
New Mexico	38	3.5	54	4.9	160	14.6	13	1.2	833	75.9
Ohio	11	2.7	25	6.1	64	15.6	3	0.7	307	74.9
Rhode Island	13	2.1	23	3.7	84	13.5	9	1.5	491	79.2
All States	204	2.2	349	3.8	1,435	15.7	143	1.6	6,993	76.6

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-35. TA Survey (EOY): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix A: Accessibility Features & Accommodations for Students taking the Paper-Based PARCC Assessments

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	28	1.1	102	4.0	665	26.1	88	3.5	1,662	65.3
Colorado	4	2.5	4	2.5	29	18.1	2	1.3	121	75.6
D.C.	--	--	--	--	9	34.6	--	--	17	65.4
Illinois	21	1.3	56	3.5	292	18.5	40	2.5	1,173	74.1
Maryland	12	1.3	30	3.2	172	18.6	29	3.1	682	73.7
Massachusetts	6	0.9	34	5.3	102	15.8	10	1.5	495	76.5
Mississippi	--	--	1	1.6	23	37.1	3	4.8	35	56.5
New Jersey	77	2.5	136	4.4	626	20.3	60	1.9	2,186	70.9
New Mexico	14	4.6	16	5.2	68	22.2	8	2.6	200	65.4
Ohio	10	2.7	26	7.0	66	17.9	8	2.2	259	70.2
Rhode Island	2	5.4	--	--	9	24.3	--	--	26	70.3
All States	175	1.8	405	4.1	2,070	21.2	250	2.6	6,880	70.3

Appendix B: Test Administration Protocol for the Human Reader Accommodations for ELA/L and the Human Reader Accessibility Feature for Math

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	30	1.2	98	3.9	639	25.3	81	3.2	1,682	66.5
Colorado	4	2.5	6	3.8	24	15.0	1	0.6	125	78.1
D.C.	--	--	--	--	9	34.6	--	--	17	65.4
Illinois	21	1.3	64	4.1	291	18.5	33	2.1	1,167	74.0
Maryland	15	1.6	32	3.5	230	24.8	45	4.9	604	65.2
Massachusetts	7	1.1	40	6.2	108	16.7	10	1.6	480	74.4
Mississippi	--	--	1	1.6	20	32.3	3	4.8	38	61.3
New Jersey	77	2.5	129	4.2	604	19.7	55	1.8	2,201	71.8
New Mexico	14	4.6	15	5.0	73	24.1	8	2.6	193	63.7
Ohio	14	3.8	27	7.4	63	17.2	5	1.4	257	70.2
Rhode Island	2	5.6	1	2.8	6	16.7	--	--	27	75.0
All States	185	1.9	414	4.3	2,076	21.3	241	2.5	6,815	70.0

Appendix C: Protocol for the Use of the Scribe and for Transcribing Student Responses

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	29	1.1	94	3.7	577	22.8	81	3.2	1,749	69.1
Colorado	4	2.5	4	2.5	27	16.9	1	0.6	124	77.5
D.C.	--	--	1	3.8	6	23.1	--	--	19	73.1
Illinois	20	1.3	55	3.5	274	17.4	32	2.0	1,190	75.7
Maryland	13	1.4	36	3.9	199	21.6	50	5.4	624	67.7
Massachusetts	5	0.8	35	5.5	98	15.3	9	1.4	494	77.1
Mississippi	--	--	1	1.6	19	30.6	3	4.8	39	62.9
New Jersey	78	2.5	125	4.1	526	17.2	52	1.7	2,282	74.5
New Mexico	14	4.6	14	4.6	59	19.4	8	2.6	209	68.8
Ohio	12	3.3	22	6.0	60	16.4	3	0.8	269	73.5
Rhode Island	1	2.8	--	--	4	11.1	--	--	31	86.1
All States	177	1.8	387	4.0	1,858	19.1	240	2.5	7,054	72.6

(continued)

Table G-35. TA Survey (EOY): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix E: Guidance for Selecting and Administering the Extended Time Accommodation

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	32	1.3	103	4.1	940	37.2	142	5.6	1,312	51.9
Colorado	4	2.5	8	5.0	35	22.0	4	0.6	111	69.8
D.C.	--	--	1	3.8	14	53.8	2	7.7	9	34.6
Illinois	20	1.3	71	4.5	481	30.6	65	4.1	935	59.5
Maryland	13	1.4	33	3.6	329	35.8	78	8.5	466	50.7
Massachusetts	5	0.8	40	6.2	212	32.9	24	3.7	363	56.4
Mississippi	--	--	--	--	25	40.3	4	6.5	33	53.2
New Jersey	88	2.9	177	5.8	1,065	34.9	120	3.9	1,599	52.4
New Mexico	14	4.6	19	6.3	92	30.3	10	3.3	169	55.6
Ohio	12	3.3	26	7.1	133	36.1	15	4.1	182	49.5
Rhode Island	1	2.9	--	--	15	42.9	1	2.9	18	51.4
All States	190	2.0	478	4.9	3,357	34.6	466	4.8	5,212	53.7

Appendix I: PARCC ELA Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	32	1.3	112	4.4	794	31.5	109	4.3	1,477	58.5
Colorado	5	3.1	7	4.4	33	20.6	--	--	115	71.9
D.C.	--	--	1	3.8	10	38.5	--	--	15	57.7
Illinois	19	1.2	71	4.5	336	21.4	33	2.1	1,112	70.8
Maryland	14	1.5	35	3.8	200	21.8	33	3.6	636	69.3
Massachusetts	6	0.9	50	7.8	126	19.5	14	2.2	449	69.6
Mississippi	--	--	--	--	22	35.5	3	4.8	37	59.7
New Jersey	83	2.7	183	6.0	769	25.2	85	2.8	1,931	63.3
New Mexico	16	5.3	18	5.9	81	26.7	8	2.6	180	59.4
Ohio	14	3.8	30	8.1	92	24.9	6	1.6	227	61.5
Rhode Island	2	5.6	--	--	7	19.4	1	2.8	26	72.2
All States	192	2.0	508	5.2	2,483	25.6	294	3.0	6,223	64.2

Appendix J: PARCC Math Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	34	1.3	111	4.4	861	34.2	116	4.6	1,397	55.5
Colorado	4	2.5	8	5.0	41	25.6	--	--	107	66.9
D.C.	--	--	1	3.8	10	38.5	1	3.8	14	53.8
Illinois	21	1.3	71	4.5	376	24.0	35	2.2	1,062	67.9
Maryland	13	1.4	34	3.7	216	23.5	33	3.6	622	67.8
Massachusetts	7	1.1	53	8.3	135	21.1	14	2.2	431	67.3
Mississippi	--	--	--	--	22	35.5	3	4.8	37	59.7
New Jersey	85	2.8	186	6.1	788	25.8	83	2.7	1,916	62.7
New Mexico	15	5.0	17	5.6	89	29.6	7	2.3	173	57.5
Ohio	12	3.3	33	8.9	109	29.5	8	2.2	207	56.1
Rhode Island	2	5.6	--	--	9	25.0	1	2.8	24	66.7
All States	194	2.0	516	5.3	2,670	27.6	304	3.1	6,006	62.0

(continued)

Table G-35. TA Survey (EOY): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Assistive Technology Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	30	1.2	119	4.7	698	27.9	101	4.0	1,558	62.2
Colorado	3	1.9	8	5.0	28	17.5	2	1.3	119	74.4
D.C.	--	--	--	--	6	23.1	--	--	20	76.9
Illinois	21	1.3	62	4.0	264	16.9	32	2.0	1,184	75.8
Maryland	15	1.6	39	4.3	169	18.4	23	2.5	671	73.2
Massachusetts	6	0.9	45	7.0	82	12.7	7	1.1	506	78.3
Mississippi	--	--	--	--	20	32.8	3	4.9	38	62.3
New Jersey	88	2.9	171	5.6	633	20.8	62	2.0	2,092	68.7
New Mexico	13	4.3	19	6.3	67	22.3	8	2.7	194	64.5
Ohio	15	4.1	29	8.0	66	18.1	7	1.9	247	67.9
Rhode Island	2	5.7	1	2.9	4	11.4	--	--	28	80.0
All States	194	2.0	493	5.1	2,047	21.2	247	2.6	6,679	69.1

PARCC Technical Assistance Bulletin – PARCC Assessments and Students with Visual Impairment, Including Blindness

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	28	1.1	93	3.7	575	22.9	73	2.9	1,738	69.3
Colorado	3	1.9	5	3.1	22	13.8	--	--	130	81.3
D.C.	--	--	--	--	5	19.2	--	--	21	80.8
Illinois	21	1.3	44	2.8	187	12.0	19	1.2	1,289	82.6
Maryland	11	1.2	28	3.1	119	13.0	16	1.7	744	81.0
Massachusetts	5	0.8	37	5.8	61	9.5	4	0.6	532	83.3
Mississippi	--	--	--	--	19	31.1	3	4.9	39	63.9
New Jersey	83	2.7	128	4.2	460	15.1	44	1.4	2,337	76.6
New Mexico	12	4.0	14	4.6	55	18.2	7	2.3	214	70.9
Ohio	9	2.5	20	5.5	40	11.0	5	1.4	290	79.7
Rhode Island	2	5.4	--	--	4	10.8	--	--	31	83.8
All States	175	1.8	369	3.8	1,555	16.1	174	1.8	7,389	76.5

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-36. TA Survey (PBA): Q5. The process for identifying accessibility features and accommodations in advance (via the Personal Needs Profile and associated trainings) was clear and easy to follow.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	94	4.3	490	8.7	822	37.5	56	2.6	1,030	47.0
Colorado	4	3.3	7	5.7	30	24.4	4	3.3	78	63.4
D.C.	2	3.8	5	9.6	19	36.5	4	7.7	22	42.3
Illinois	102	4.9	215	10.4	517	25.1	44	2.1	1,184	57.4
Maryland	27	5.3	68	13.3	123	24.0	9	1.8	286	55.8
Massachusetts	34	5.5	116	18.6	143	23.0	7	1.1	322	51.8
Mississippi	1	1.2	7	8.5	30	36.6	1	1.2	43	52.4
New Jersey	114	6.9	230	13.9	400	24.1	31	1.9	882	53.2
New Mexico	69	5.9	149	12.8	292	25.2	13	1.1	637	54.9
Ohio	31	7.1	64	14.7	109	25.1	3	0.7	228	52.4
Rhode Island	27	4.1	93	14.0	183	27.5	12	1.8	351	52.7
All States	506	5.3	1,152	12.0	2,677	27.9	184	1.9	5,077	52.9

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-37. TA Survey (EOY): Q5. The process for identifying accessibility features and accommodations in advance (via the Personal Needs Profile and associated trainings) was clear and easy to follow.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	66	2.5	231	8.8	965	36.8	60	2.3	1,298	49.5
Colorado	7	4.1	23	13.5	50	29.2	3	1.8	88	51.5
D.C.	1	3.7	4	14.8	13	48.1	--	--	9	33.3
Illinois	53	3.2	193	11.7	411	25.0	37	2.2	952	57.8
Maryland	53	5.5	114	11.9	246	25.8	28	2.9	514	53.8
Massachusetts	29	4.2	104	15.1	153	22.2	10	1.5	393	57.0
Mississippi	2	2.9	3	4.4	34	50.0	1	1.5	28	41.2
New Jersey	171	5.3	375	11.6	868	26.7	54	1.7	1,777	54.8
New Mexico	19	6.1	50	16.2	94	30.4	5	1.6	141	45.6
Ohio	29	7.5	76	19.6	74	19.1	3	0.8	206	53.1
Rhode Island	3	7.5	5	12.5	11	27.5	--	--	21	52.5
All States	437	4.3	1,183	11.6	2,934	28.8	202	2.0	5,440	53.4

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-38. TA Survey (PBA): Q6. Were all the accommodations/accessibility features that were pre-identified in the PNP made available to students during a practice session with sample items, tutorial(s), or practice test(s)?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	730	33.5	179	8.2	727	33.4	543	24.9
Colorado	30	25.0	15	12.5	30	25.0	45	37.5
D.C.	22	42.3	6	11.5	12	23.1	12	23.1
Illinois	474	23.0	244	11.9	621	30.2	720	35.0
Maryland	126	24.8	63	12.4	159	31.3	160	63.5
Massachusetts	160	25.7	107	17.2	201	32.3	154	24.8
Mississippi	12	14.6	4	4.9	33	40.2	33	40.2
New Jersey	360	21.8	198	12.0	502	30.4	592	35.8
New Mexico	261	22.6	179	15.5	379	32.8	336	29.1
Ohio	96	22.3	74	17.2	121	28.1	139	32.3
Rhode Island	144	22.2	73	11.3	206	31.8	225	34.7
All States	2,427	25.4	1,144	12.0	3,001	31.5	2,967	31.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-39. TA Survey (EOY): Q6. Were all the accommodations/accessibility features that were pre-identified in the PNP made available to students during a practice session with sample items, tutorial(s), or practice test(s)?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	833	32.0	158	6.1	911	35.0	700	26.9
Colorado	37	21.6	16	9.4	60	35.1	58	33.9
D.C.	10	40.0	2	8.0	9	36.0	4	16.0
Illinois	365	22.3	167	10.2	512	31.2	595	36.3
Maryland	270	28.3	102	10.7	307	32.2	274	28.8
Massachusetts	158	23.1	91	13.3	222	32.5	213	31.1
Mississippi	16	23.2	3	4.3	24	34.8	26	37.7
New Jersey	798	24.7	333	10.3	937	29.0	1,168	36.1
New Mexico	65	21.2	43	14.0	104	33.9	95	30.9
Ohio	107	27.4	60	15.3	112	28.6	112	28.6
Rhode Island	12	31.6	3	7.9	9	23.7	14	36.8
All States	2,685	26.5	980	9.7	3,218	31.7	3,266	32.2

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-40. TA Survey (PBA): Q7. During administration, were changes made to a student's PNP or to the availability of accommodations or accessibility features?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	68	3.1	823	37.5	759	34.6	544	24.8
Colorado	10	8.1	35	28.2	34	27.4	45	36.3
D.C.	7	13.5	19	36.5	13	25.0	13	25.0
Illinois	101	4.9	657	31.8	606	29.3	703	34.0
Maryland	29	5.7	159	31.1	172	33.7	151	29.5
Massachusetts	49	7.9	226	36.4	198	31.9	148	23.8
Mississippi	3	3.6	21	25.3	22	26.5	37	44.6
New Jersey	74	4.5	515	31.0	486	29.3	584	35.2
New Mexico	45	3.9	407	35.1	378	32.6	331	28.5
Ohio	25	5.8	154	35.8	122	28.4	129	30.0
Rhode Island	15	2.3	259	39.2	191	28.9	195	29.5
All States	427	4.5	3,292	34.3	2,989	31.2	2,885	30.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-41. TA Survey (EOY): Q7. During administration, were changes made to a student's PNP or to the availability of accommodations or accessibility features?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	93	3.6	926	35.4	930	35.6	666	25.5
Colorado	8	4.8	44	26.5	65	39.2	49	29.5
D.C.	1	3.7	11	40.7	10	37.0	5	18.5
Illinois	85	5.2	510	31.0	493	30.0	556	33.8
Maryland	51	5.3	319	33.4	326	34.1	260	27.2
Massachusetts	39	5.7	216	31.3	232	33.7	202	29.3
Mississippi	1	1.4	23	33.3	21	30.4	24	34.8
New Jersey	145	4.5	1,048	32.2	892	27.4	1,168	35.9
New Mexico	18	5.8	101	32.6	101	32.6	90	29.0
Ohio	26	6.7	146	37.5	108	27.8	109	28.0
Rhode Island	--	--	19	47.5	8	20.0	13	32.5
All States	469	4.6	3,380	33.2	3,197	31.4	3,148	30.9

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Sample Items/Tutorials

Table G-42. TA Survey (PBA): Q1. How did students in your session(s) practice with PARCC content prior to administration? Select all that apply.[a]

	Sample Items		Tutorial		Practice Test		Did Not Practice		Not sure/Don't Know	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	1,558	66.1	1,260	53.4	1,540	65.3	36	1.5	301	12.8
Colorado	82	60.3	43	31.6	69	50.7	6	4.4	27	19.9
D.C.	35	63.6	25	45.5	29	52.7	--	--	13	23.6
Illinois	1,482	65.5	1,295	57.2	1,281	56.6	84	3.7	218	9.6
Maryland	348	62.7	259	46.7	315	56.8	6	1.1	83	15.0
Massachusetts	483	69.7	388	56.0	465	67.1	19	2.7	55	7.9
Mississippi	52	56.5	28	30.4	48	52.2	2	2.2	19	20.7
New Jersey	1,202	62.6	899	46.8	1,132	59.0	33	1.7	271	14.1
New Mexico	866	68.9	571	45.5	886	70.5	40	3.2	110	8.8
Ohio	326	70.4	248	53.6	302	65.2	10	2.2	64	13.8
Rhode Island	522	72.7	402	56.0	463	64.5	14	1.9	65	9.1
All States[b]	6,978	66.2	5,435	51.5	6,549	62.1	251	2.4	1,231	11.7

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.
[b]N-counts include individuals with missing data for state location who selected a response.

Table G-43. TA Survey (EOY): Q1. How did students in your session(s) practice with PARCC content prior to administration? Select all that apply.[a]

	Sample Items		Tutorial		Practice Test		Did Not Practice		Not sure/Don't Know	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	1,766	62.2	1,403	49.4	1,699	59.9	51	1.8	451	15.9
Colorado	102	55.7	73	39.9	78	42.6	13	7.1	33	18.0
D.C.	15	50.0	13	43.3	16	53.3	2	6.7	5	16.7
Illinois	1,229	68.2	968	53.7	1,050	58.2	75	4.2	150	8.3
Maryland	649	61.5	548	51.9	567	53.7	28	2.7	114	10.8
Massachusetts	517	68.8	397	52.8	492	65.4	26	3.5	59	7.8
Mississippi	40	55.6	26	36.1	31	43.1	4	5.6	21	29.2
New Jersey	2,408	66.0	1,861	51.0	2,172	59.6	111	3.0	479	13.1
New Mexico	225	68.2	158	47.9	218	66.1	13	3.9	34	10.3
Ohio	299	69.1	222	51.3	274	63.3	11	2.5	42	9.7
Rhode Island	36	81.8	32	72.7	34	77.3	1	2.3	1	2.3
All States[b]	7,316	65.1	5,723	51.0	6,656	59.3	335	3.0	1,393	12.4

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.
[b]N-counts include individuals with missing data for state location who selected a response.

Table G-44. TA Survey (PBA): Q2. How did you, as a Test Administrator, work with PARCC content prior to administration? Select all that apply.[a]

	Sample Items		Tutorial		Practice Test		Did Not Practice	
State	n	%	n	%	n	%	n	%
Arkansas	1,622	68.8	1,576	66.8	1,327	56.3	223	9.5
Colorado	88	64.7	66	48.5	85	62.5	14	10.3
D.C.	37	67.3	32	58.2	30	54.5	8	14.5
Illinois	1,671	73.8	1,587	70.1	1,392	61.5	139	6.1
Maryland	374	67.4	322	58.0	274	49.4	69	12.4
Massachusetts	504	72.7	495	71.4	454	65.5	45	6.5
Mississippi	48	52.2	43	46.7	34	37.0	17	18.5
New Jersey	1,339	69.7	1,262	65.7	1,164	60.6	130	6.8
New Mexico	905	72.1	743	59.2	812	64.6	97	7.7
Ohio	345	74.5	347	74.9	296	63.9	27	5.8
Rhode Island	536	74.7	494	68.8	452	63.0	53	7.4
All States[b]	7,494	71.1	6,990	66.3	6,338	60.1	825	7.8

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.
[b]N-counts include individuals with missing data for state location who selected a response.

Table G-45. TA Survey (EOY): Q2. How did you, as a Test Administrator, work with PARCC content prior to administration? Select all that apply.[a]

	Sample Items		Tutorial		Practice Test		Did Not Practice	
State	n	%	n	%	n	%	n	%
Arkansas	1,842	64.9	1,816	64.0	1,491	52.5	316	11.1
Colorado	119	65.0	92	50.3	86	47.0	25	13.7
D.C.	19	63.3	18	60.0	19	63.3	3	10.0
Illinois	1,314	72.9	1,254	69.6	1,082	60.0	105	5.8
Maryland	660	62.5	618	58.5	506	47.9	133	12.6
Massachusetts	529	70.3	503	66.9	482	64.1	55	7.3
Mississippi	39	54.2	44	61.1	26	36.1	15	20.8
New Jersey	2,634	72.2	2,458	67.4	2,241	61.4	244	6.7
New Mexico	235	71.2	202	61.2	218	66.1	27	8.2
Ohio	325	75.1	312	72.1	273	63.0	17	3.9
Rhode Island	36	81.8	31	70.5	29	65.9	--	--
All States[b]	7,781	69.3	7,375	65.7	6,471	57.6	945	8.4

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.
[b]N-counts include individuals with missing data for state location who selected a response.

Table G-46. TA Survey (PBA): Q3. Completion of the PARCC tutorial helped me to better understand the tools and functionalities of the TestNav system.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	95	4.3	182	8.3	1,386	63.1	324	14.7	210	9.6
Colorado	4	3.2	13	10.5	70	56.5	10	8.1	27	21.8
D.C.	2	3.8	1	1.9	33	63.5	5	9.6	11	21.2
Illinois	95	4.5	195	9.3	1,220	58.4	350	16.8	228	10.9
Maryland	19	3.7	51	9.9	295	57.3	54	10.5	96	18.6
Massachusetts	31	4.9	81	12.9	385	61.2	77	12.2	55	8.7
Mississippi	1	1.2	10	12.2	46	56.1	8	9.8	17	20.7
New Jersey	101	6.0	248	14.8	1,000	59.5	182	10.8	149	8.9
New Mexico	81	6.9	165	14.1	679	57.9	84	7.2	163	13.9
Ohio	18	4.1	64	14.7	274	62.8	42	9.6	38	8.7
Rhode Island	28	4.2	89	13.3	393	58.8	69	10.3	89	13.3
All States	476	4.9	1,100	11.4	5,800	60.0	1,210	12.5	1,085	11.2

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table G-47. TA Survey (EOY): Q3. Completion of the PARCC tutorial helped me to better understand the tools and functionalities of the TestNav system.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	114	4.3	205	7.8	1,713	64.9	327	12.4	279	10.6
Colorado	1	0.6	18	10.8	101	60.5	18	10.8	29	17.4
D.C.	--	--	5	18.5	14	51.9	5	18.5	3	11.1
Illinois	46	2.8	140	8.4	1,071	64.6	237	14.3	163	9.8
Maryland	47	4.9	90	9.3	549	57.0	139	14.4	138	14.3
Massachusetts	24	3.5	86	12.5	441	64.0	75	10.9	63	9.1
Mississippi	2	2.9	8	11.6	42	60.9	5	7.2	12	17.4
New Jersey	151	4.6	416	12.6	2,046	62.2	362	11.0	315	9.6
New Mexico	20	6.4	43	13.7	192	61.1	16	5.1	43	13.7
Ohio	20	5.1	67	17.2	238	61.0	31	7.9	34	8.7
Rhode Island	1	2.5	3	7.5	30	75.0	3	7.5	3	7.5
All States	426	4.1	1,083	10.5	6,461	62.9	1,222	11.9	1,087	10.6

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Appendix H – Item-level Results from Test Administrator Survey: PBT Administration with Breakouts for PBA and EOY

Paper-Based

Background Information

Table H-1. TA Survey Respondents by Administration and State

	PBT PBA		PBT EOY	
	N-count	%	N-count	%
Arkansas	89	5.1	189	14.5
Colorado	18	1.0	11	0.8
District of Columbia	2	0.1	2	0.2
Illinois	440	25.3	160	12.3
Maryland	26	1.5	154	11.8
Massachusetts	662	38.0	449	34.5
Mississippi	40	2.3	--	--
New Jersey	31	1.8	173	13.3
New Mexico	57	3.3	44	3.4
Ohio	239	13.7	94	7.2
Rhode Island	136	7.8	25	1.9
All States	2,336[a]	100.0	1,469[b]	100.0

Note. Percentages are based on the total number of valid responses for each state. Number of missing for PBT PBA = 596. Number of missing for PBT EOY = 168.
[a]Includes the 596 cases that did not indicate their state.
[b]Includes the 168 cases that did not indicate their state.

Table H-2. TA Survey (PBA): Q3. Please indicate which assessment(s) you administered for English Language Arts/Literacy (ELA). Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	15	6.9	11	12.4	22	24.7	10	11.2	10	11.2	8	9.0	14	15.7	13	14.6	3	3.4	9	10.1
Colorado	3	16.7	6	33.3	1	5.6	1	5.6	1	5.6	1	5.6	2	11.1	2	11.1	3	16.7	2	11.1
D.C.	--	--	2	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Illinois	131	29.8	143	32.5	105	23.9	56	12.7	41	9.3	44	10.0	13	3.0	--	--	3	0.7	19	4.3
Maryland	10	38.5	7	26.9	11	42.3	--	--	--	--	--	--	1	3.8	3	11.5	--	--	2	7.7
Massachusetts	158	23.9	169	25.5	194	29.3	117	17.7	131	19.8	127	19.2	7	1.1	2	0.3	6	0.9	24	3.6
Mississippi	8	20.0	6	15.0	6	15.0	--	--	3	7.5	4	10.0	--	--	9	22.5	--	--	8	20.0
New Jersey	4	12.9	1	3.2	4	12.9	6	19.4	7	22.6	9	29.0	2	6.5	3	9.7	3	9.7	1	3.2
New Mexico	12	21.1	11	19.3	5	8.8	17	29.8	11	19.3	12	21.1	--	--	3	5.3	6	10.5	4	7.0
Ohio	21	8.8	70	29.3	52	21.8	26	10.9	24	10.0	23	9.6	34	14.2	3	1.3	1	0.4	67	28.0
Rhode Island	31	22.8	26	19.1	24	17.6	23	16.9	21	15.4	19	14.0	1	0.7	1	0.7	--	--	3	2.2
All States[b]	590	25.3	630	27.0	568	24.3	294	12.6	279	11.9	272	11.6	76	3.3	39	1.7	25	1.1	143	6.1

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-3. TA Survey (EOY): Q3. Please indicate which assessment(s) you administered for English Language Arts/Literacy (ELA). Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	32	16.9	29	15.3	30	15.9	34	18.0	18	9.5	24	12.7	14	7.4	14	7.4	9	4.8	20	10.6
Colorado	7	63.6	1	9.1	4	36.4	--	--	--	--	--	--	--	--	--	--	--	--	1	9.1
D.C.	1	50.0	2	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Illinois	32	20.0	32	20.0	24	15.0	23	14.4	22	13.8	19	11.9	17	10.6	2	1.3	5	3.1	13	8.1
Maryland	36	23.4	30	19.5	29	18.8	31	20.1	24	15.6	25	16.2	--	--	10	6.5	--	--	11	7.1
Massachusetts	148	33.0	120	26.7	138	30.7	78	17.4	44	9.8	66	14.7	10	2.2	1	0.2	9	2.0	16	3.6
New Jersey	31	17.9	38	22.0	41	23.7	23	13.3	31	17.9	35	20.2	1	0.6	1	0.6	1	0.6	3	1.7
New Mexico	12	27.3	14	31.8	13	29.5	10	22.7	7	15.9	8	18.2	3	6.8	7	15.9	5	11.4	1	2.3
Ohio	4	4.3	18	19.1	27	28.7	23	24.5	8	8.5	15	16.0	3	3.2	--	--	--	--	19	20.2
Rhode Island	6	24.0	10	40.0	1	4.0	--	--	5	20.0	4	16.0	--	--	--	--	--	--	--	--
All States[b]	354	24.1	350	23.8	357	24.3	235	16.0	165	11.2	204	13.9	48	3.3	35	2.4	29	2.0	84	5.7

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-4. TA Survey (PBA): Q4. Please indicate which assessment(s) you administered for Mathematics. Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		ALG 1		GEO		ALG 2		INT 1		INT 2		INT 3		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	14	15.7	11	12.4	22	24.7	11	12.4	10	11.2	10	11.2	12	13.5	13	14.6	4	4.5	--	--	--	--	--	--	4	4.5
Colorado	2	11.1	6	33.3	1	5.6	1	5.6	1	5.6	1	5.6	1	5.6	1	5.6	4	22.2	--	--	--	--	--	--	2	11.1
D.C.	--	--	2	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Illinois	129	29.3	144	32.7	104	23.6	55	12.5	40	9.1	40	9.1	5	1.1	--	--	5	1.1	3	0.7	--	--	1	0.2	22	5.0
Maryland	10	38.5	9	34.6	7	26.9	1	3.8	--	--	--	--	2	7.7	--	--	1	3.8	--	--	--	--	--	--	3	11.5
Massachusetts	156	23.6	169	25.5	187	28.2	114	17.2	130	19.6	121	18.3	19	2.9	2	0.3	5	0.8	1	0.2	--	--	--	--	30	4.5
Mississippi	7	17.5	7	17.5	5	12.5	--	--	2	5.0	3	7.5	8	20.0	--	--	1	2.5	--	--	--	--	--	--	8	20.0
New Jersey	4	12.9	1	3.2	3	9.7	5	16.1	6	19.4	9	29.0	2	6.5	5	16.1	1	3.2	--	--	--	--	--	--	2	6.5
New Mexico	13	22.8	10	17.5	5	8.8	12	21.1	7	12.3	6	10.5	4	7.0	2	3.5	3	5.3	1	1.8	3	5.3	--	--	3	5.3
Ohio	112	46.9	66	27.6	46	19.2	21	8.8	20	8.4	24	10.0	26	10.9	12	5.0	2	0.8	7	2.9	2	0.8	2	0.8	14	5.9
Rhode Island	31	22.8	25	18.4	23	16.9	21	15.4	21	15.4	15	11.0	6	4.4	1	0.7	--	--	--	--	--	--	--	--	4	2.9
All States[b]	669	28.6	633	27.1	546	23.4	277	11.9	267	11.4	256	11.0	87	3.7	36	1.5	26	1.1	12	0.5	5	0.2	3	0.1	101	4.3

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-5. TA Survey (EOY): Q4. Please indicate which assessment(s) you administered for Mathematics. Select all that apply.[a]

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		ALG 1		GEO		ALG 2		INT 1		INT 2		INT 3		N/A	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	33	17.5	31	16.4	31	16.4	34	18.0	18	9.5	23	12.2	15	7.9	15	7.9	10	5.3	--	--	--	--	--	--	15	7.9
Colorado	7	63.6	2	18.2	4	36.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D.C.	1	50.0	2	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Illinois	37	23.1	30	20.6	25	15.6	23	14.4	21	13.1	19	11.9	2	1.3	1	0.6	10	6.3	--	--	1	0.6	--	--	17	10.6
Maryland	38	24.7	30	19.5	30	19.5	33	21.4	18	11.7	16	10.4	33	21.4	--	--	8	5.2	--	--	--	--	--	--	3	1.9
Massachusetts	147	32.7	119	26.5	142	31.6	79	17.6	47	10.5	72	16.0	12	2.7	2	0.4	7	1.6	--	--	--	--	--	--	11	2.4
New Jersey	31	17.9	38	22.0	42	24.3	22	12.7	32	18.5	22	12.7	13	7.5	4	2.3	--	--	--	--	--	--	--	--	4	2.3
New Mexico	12	27.3	15	34.1	13	29.5	10	22.7	7	15.9	10	22.7	5	11.4	4	9.1	3	6.8	5	11.4	1	2.3	--	--	--	--
Ohio	25	26.6	20	21.3	28	29.8	23	24.5	8	8.5	13	13.8	7	7.4	3	3.2	--	--	--	--	--	--	--	--	4	4.3
Rhode Island	6	24.0	11	44.0	2	8.0	--	--	5	20.0	4	16.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All States[b]	380	25.9	358	24.4	365	24.8	237	16.1	162	11.0	187	12.7	87	5.9	29	2.0	38	2.6	5	0.3	2	0.1	--	--	58	3.9

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Test Administrator's Training Experience

Table H-6. TA Survey (PBA): Q1. Please indicate your level of agreement with the following statement: "This training effectively prepared me to administer the PARCC assessments."

Introduction to PARCC training modules

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	5.7	14	15.9	39	43.8	19	21.3	11	12.4
Colorado	2	11.1	1	5.6	7	38.9	3	16.7	5	27.8
D.C.	--	--	--	--	1	50.0	1	50.0	--	--
Illinois	22	5.1	51	11.8	196	45.3	62	14.3	102	23.6
Maryland	1	4.0	--	--	13	52.0	6	24.0	5	20.0
Massachusetts	23	3.6	65	10.1	326	50.7	96	14.9	133	20.7
Mississippi	3	7.5	5	12.5	13	32.5	12	30.0	7	17.5
New Jersey	--	--	5	17.2	18	62.1	4	13.8	2	6.9
New Mexico	3	5.5	5	9.1	34	61.8	6	10.9	7	12.7
Ohio	31	13.1	38	16.0	86	36.3	19	8.0	63	26.6
Rhode Island	8	6.2	24	18.5	67	51.5	9	6.9	22	16.9
All States	129	5.7	253	11.1	1,064	46.6	348	15.2	488	21.4

Accessibility Features & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	8	9.2	11	12.6	43	49.4	12	13.8	13	14.9
Colorado	2	11.1	2	11.1	6	33.3	3	16.7	5	27.8
D.C.	--	--	--	--	1	50.0	1	50.0	--	--
Illinois	22	5.1	62	14.4	173	40.2	54	12.6	119	27.7
Maryland	1	4.0	1	4.0	9	36.0	6	24.0	8	32.0
Massachusetts	27	4.2	88	13.7	294	45.7	72	11.2	163	25.3
Mississippi	2	5.0	4	10.0	11	27.5	11	27.5	12	30.0
New Jersey	2	6.9	4	13.8	14	48.3	5	17.2	4	13.8
New Mexico	3	5.6	7	13.0	31	57.4	4	7.4	9	16.7
Ohio	27	11.5	46	19.7	79	33.8	15	6.4	67	28.6
Rhode Island	11	8.5	27	20.8	59	45.4	8	6.2	25	19.2
All States	131	5.8	297	13.1	979	43.1	301	13.2	564	24.8

Administration of Paper-Based Assessments for Test Administrators Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	5.7	10	11.5	43	49.4	16	18.4	13	14.9
Colorado	2	11.1	--	--	3	16.7	2	11.1	11	61.1
D.C.	--	--	--	--	1	50.0	1	50.0	--	--
Illinois	23	5.4	42	9.8	199	46.4	77	17.9	88	20.5
Maryland	1	4.0	--	--	12	48.0	5	20.0	7	28.0
Massachusetts	20	3.1	60	9.4	350	54.7	98	15.3	112	17.5
Mississippi	5	12.8	4	10.3	12	30.8	13	33.3	5	12.8
New Jersey	--	--	8	26.7	11	36.7	5	16.7	6	20.0
New Mexico	2	3.6	6	10.9	34	61.8	4	7.3	9	16.4
Ohio	25	10.8	36	15.6	94	40.7	21	9.1	55	23.8
Rhode Island	8	6.2	19	14.6	74	56.9	7	5.4	22	16.9
All States	122	5.4	231	10.2	1,092	48.1	372	16.4	451	19.9

(continued)

Table H-6. TA Survey (PBA): Q1. Please indicate your level of agreement with the following statement: "This training effectively prepared me to administer the PARCC assessments."

PearsonAccess^{next} Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	5.7	7	8.0	44	50.6	10	11.5	21	24.1
Colorado	2	11.1	1	5.6	6	33.3	2	11.1	7	38.9
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	26	6.1	54	12.7	124	29.2	36	8.5	184	43.4
Maryland	1	4.0	--	--	10	40.0	3	12.0	11	44.0
Massachusetts	23	4.1	70	11.0	196	30.7	43	6.7	304	47.6
Mississippi	3	7.7	4	10.3	10	25.6	9	23.1	13	33.3
New Jersey	1	3.4	8	27.6	11	37.9	7	24.1	2	6.9
New Mexico	4	7.5	6	11.3	27	50.9	4	7.5	12	22.6
Ohio	29	12.4	39	16.7	52	22.2	12	5.1	102	43.6
Rhode Island	10	7.6	22	16.8	44	33.6	4	3.1	51	38.9
All States	136	6.0	261	11.6	685	30.4	182	8.1	987	43.8

Student Registration Import Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	5.7	9	10.2	37	42.0	8	9.1	29	33.0
Colorado	2	11.1	--	--	5	27.8	2	11.1	9	50.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	27	6.4	46	10.9	75	17.8	31	7.3	243	57.6
Maryland	1	4.0	--	--	4	16.0	2	8.0	18	72.0
Massachusetts	29	4.6	64	10.2	159	25.3	31	4.9	345	54.9
Mississippi	3	7.7	4	10.3	10	25.6	8	20.5	14	35.9
New Jersey	--	--	7	23.3	7	23.3	3	10.0	13	43.3
New Mexico	3	5.9	6	11.8	25	49.0	2	3.9	15	29.4
Ohio	36	15.4	33	14.1	30	12.8	7	3.0	128	54.7
Rhode Island	11	8.6	16	12.5	28	21.9	2	1.6	71	55.5
All States	144	6.4	233	10.4	531	23.8	140	6.3	1,185	53.1

Student Readiness Resources for PARCC Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	10.3	7	8.0	45	51.7	8	9.2	18	20.7
Colorado	2	11.1	2	11.1	5	27.8	2	11.1	7	38.9
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	31	7.3	67	15.7	118	27.6	38	8.9	173	40.5
Maryland	1	4.0	--	--	8	32.0	3	12.0	13	52.0
Massachusetts	40	6.4	79	12.6	175	27.8	42	6.7	293	46.6
Mississippi	3	7.7	4	10.3	10	25.6	10	25.6	12	30.8
New Jersey	1	3.3	6	20.0	11	36.7	4	13.3	8	26.7
New Mexico	4	7.7	7	13.5	28	53.8	3	5.8	10	19.2
Ohio	41	17.7	37	15.9	46	19.8	5	2.2	103	44.4
Rhode Island	10	7.9	18	14.2	54	42.5	4	3.1	41	32.3
All States	178	8.0	280	12.6	679	30.4	170	7.6	924	41.4

(continued)

Table H-6. TA Survey (PBA): Q1. Please indicate your level of agreement with the following statement: "This training effectively prepared me to administer the PARCC assessments."

Training from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	10.5	12	14.0	35	40.7	8	9.3	22	25.6
Colorado	5	27.8	--	--	3	16.7	1	5.6	9	50.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	58	13.6	72	16.9	81	19.1	27	6.4	187	44.0
Maryland	1	4.0	3	12.0	6	24.0	4	16.0	11	44.0
Massachusetts	62	9.7	99	15.6	146	23.0	31	4.9	298	46.9
Mississippi	3	7.5	9	22.5	9	22.5	5	12.5	14	35.0
New Jersey	3	10.0	7	23.3	7	23.3	1	3.3	12	40.0
New Mexico	10	19.2	7	13.5	22	42.3	1	1.9	12	23.1
Ohio	56	24.1	44	19.0	29	16.4	4	1.7	90	38.8
Rhode Island	17	13.1	25	19.2	34	26.2	3	2.3	51	39.2
All States	279	12.4	344	15.3	553	24.7	134	6.0	932	41.6

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	8	9.2	4	4.6	44	50.6	16	18.4	15	17.2
Colorado	4	22.2	2	11.1	3	16.7	1	5.6	8	44.4
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	32	7.4	46	10.6	166	38.4	91	21.1	97	22.5
Maryland	1	4.0	2	8.0	10	40.0	5	20.0	7	28.0
Massachusetts	40	6.2	81	12.6	246	38.4	90	14.0	184	28.7
Mississippi	3	7.5	3	7.5	15	37.5	16	40.0	3	7.5
New Jersey	1	3.3	3	10.0	18	60.0	7	23.3	1	3.3
New Mexico	5	9.1	5	9.1	31	56.4	4	7.3	10	18.2
Ohio	28	12.0	39	16.7	100	42.7	32	13.7	35	15.0
Rhode Island	9	6.9	26	19.8	53	40.5	10	7.6	33	25.2
All States	165	7.2	266	11.7	891	39.1	400	17.6	554	24.3

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	6	6.8	5	5.7	49	55.7	23	26.1	5	5.7
Colorado	1	5.6	2	11.1	10	55.6	5	27.8	--	--
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	19	4.4	30	6.9	213	49.2	127	29.3	44	10.2
Maryland	2	8.0	1	4.0	10	40.0	11	44.0	1	4.0
Massachusetts	26	4.0	51	7.8	343	52.4	213	32.6	21	3.2
Mississippi	3	7.5	4	10.0	13	32.5	19	47.5	1	2.5
New Jersey	--	--	3	9.7	19	61.3	8	25.8	1	3.2
New Mexico	4	7.0	1	1.8	34	59.6	16	28.1	2	3.5
Ohio	27	11.4	30	12.7	114	48.3	43	18.2	22	9.3
Rhode Island	7	5.3	13	9.9	80	61.1	22	16.8	9	6.9
All States	129	5.6	167	7.2	1,170	50.7	723	31.4	117	5.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-7. TA Survey (EOY): Q1. Please indicate your level of agreement with the following statement: "This training effectively prepared me to administer the PARCC assessments."

Introduction to PARCC training modules

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	4.8	20	10.8	111	59.7	29	15.6	17	9.1
Colorado	--	--	1	9.1	8	72.7	2	18.2	--	--
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	6	3.8	26	16.7	75	48.1	15	9.6	34	21.8
Maryland	6	3.9	9	5.9	77	50.7	23	15.1	37	24.3
Massachusetts	21	4.8	41	9.4	233	53.3	74	16.9	68	15.6
New Jersey	16	9.7	16	9.7	85	51.5	22	13.3	26	15.8
New Mexico	1	2.3	4	9.3	27	62.8	4	9.3	7	16.3
Ohio	6	6.8	13	21.6	37	63.6	5	5.7	27	30.7
Rhode Island	--	--	3	12.0	16	64.0	1	4.0	5	20.0
All States	69	4.8	138	9.7	767	53.7	214	15.0	241	16.9

Accessibility Features & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	11	5.9	19	10.2	104	55.9	23	12.4	29	15.6
Colorado	--	--	1	10.0	6	60.0	2	20.0	1	10.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	7	4.6	31	20.4	63	41.4	9	5.9	42	27.6
Maryland	9	6.0	10	6.7	68	45.3	23	15.3	40	26.7
Massachusetts	27	6.2	61	14.0	202	46.3	54	12.4	92	21.1
New Jersey	14	8.6	23	14.1	74	45.4	20	12.3	32	19.6
New Mexico	2	4.7	5	11.6	24	55.8	4	9.3	8	18.6
Ohio	5	5.6	15	16.7	34	37.8	5	5.6	31	34.4
Rhode Island	--	--	3	13.0	13	56.5	--	--	7	30.4
All States	81	5.7	173	12.2	679	47.9	178	12.5	308	21.7

Administration of Paper-Based Assessments for Test Administrators Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	4.8	15	8.0	112	59.9	26	13.9	25	13.4
Colorado	--	--	1	9.1	6	54.5	4	36.4	--	--
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	7	4.6	23	15.0	72	47.1	17	11.1	34	22.2
Maryland	7	4.6	11	7.2	75	49.0	30	19.6	30	19.6
Massachusetts	23	5.3	40	9.1	238	54.3	77	17.6	60	13.7
New Jersey	14	8.5	10	6.1	52	31.7	12	7.3	76	46.3
New Mexico	2	4.8	3	7.1	22	52.4	5	11.9	10	23.8
Ohio	7	7.8	16	17.8	39	43.3	6	6.7	22	24.4
Rhode Island	--	--	2	8.3	17	70.8	--	--	5	20.8
All States	75	5.3	125	8.8	724	50.7	221	15.5	283	19.8

(continued)

Table H-7. TA Survey (EOY): Q1. Please indicate your level of agreement with the following statement: "This training effectively prepared me to administer the PARCC assessments."

PearsonAccess^{next} Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	8	4.3	23	12.4	83	44.6	21	11.3	51	27.4
Colorado	--	--	1	9.1	8	72.7	--	--	2	18.2
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	8	5.2	26	17.0	53	34.6	6	3.9	60	39.2
Maryland	8	5.3	16	10.5	40	26.3	8	5.3	80	52.6
Massachusetts	25	5.8	51	11.8	120	27.7	29	6.7	208	48.0
New Jersey	14	8.7	20	12.4	60	37.3	16	9.9	51	31.7
New Mexico	2	4.7	5	11.6	21	48.8	4	9.3	11	25.6
Ohio	5	5.7	16	18.4	25	28.7	5	5.7	36	41.4
Rhode Island	--	--	2	8.7	11	47.8	--	--	10	43.5
All States	77	5.5	169	12.0	487	34.5	107	7.6	571	40.5

Student Registration Import Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	10	5.4	21	11.4	72	39.1	18	9.8	63	34.2
Colorado	--	--	1	10.0	4	40.0	--	--	5	50.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	11	7.1	25	16.2	38	24.7	5	3.2	75	48.7
Maryland	8	5.3	14	9.3	25	16.7	6	4.0	97	64.7
Massachusetts	27	6.3	46	10.7	96	22.4	21	4.9	239	55.7
New Jersey	13	8.2	14	8.8	43	27.0	9	5.7	80	50.3
New Mexico	1	2.4	4	9.5	18	42.9	3	7.1	16	38.1
Ohio	6	6.9	14	16.1	16	18.4	3	3.4	48	55.2
Rhode Island	--	--	2	8.7	2	8.7	--	--	19	82.6
All States	82	5.9	147	10.5	375	26.8	81	5.8	714	51.0

Student Readiness Resources for PARCC Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	8	4.4	17	9.3	88	48.1	20	10.9	50	27.3
Colorado	--	--	1	10.0	5	50.0	--	--	4	36.4
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	9	6.0	28	18.5	42	27.8	7	4.6	65	43.0
Maryland	8	5.3	15	9.9	39	25.8	9	6.0	80	53.0
Massachusetts	32	7.4	53	12.3	118	27.4	31	7.2	197	45.7
New Jersey	16	10.3	20	12.8	57	36.5	12	7.7	51	32.7
New Mexico	2	4.7	6	14.0	21	48.8	4	9.3	10	23.3
Ohio	7	7.9	15	16.9	21	23.6	2	2.2	44	49.4
Rhode Island	1	4.3	1	4.3	9	39.1	--	--	12	52.2
All States	89	6.3	167	11.9	465	33.2	107	7.6	574	40.9

(continued)

Table H-7. TA Survey (EOY): Q1. Please indicate your level of agreement with the following statement: "This training effectively prepared me to administer the PARCC assessments."

Training from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	12	6.5	22	12.0	73	39.7	16	8.7	61	33.2
Colorado	2	20.0	1	10.0	3	30.0	--	--	4	40.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	23	14.9	30	19.5	35	22.7	2	1.3	64	41.6
Maryland	16	10.6	22	14.6	28	18.5	9	6.0	76	50.3
Massachusetts	44	10.1	76	17.5	99	22.8	21	4.8	195	44.8
New Jersey	29	18.2	29	18.2	37	23.3	10	6.3	54	34.0
New Mexico	2	4.7	12	27.9	15	34.9	3	7.0	11	25.6
Ohio	13	14.9	18	20.7	19	21.8	1	1.1	36	41.4
Rhode Island	3	12.5	1	4.2	4	16.7	--	--	16	66.7
All States	155	11.0	225	15.9	382	27.1	81	5.7	568	40.3

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	10	5.4	19	10.2	97	52.2	38	20.4	22	11.8
Colorado	2	18.2	--	--	5	45.5	3	27.3	1	9.1
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	14	9.1	18	11.7	69	44.8	18	11.7	35	22.7
Maryland	11	7.2	22	14.5	52	34.2	13	8.6	54	35.5
Massachusetts	21	4.8	59	13.5	181	41.4	70	16.0	106	24.3
New Jersey	14	8.5	18	11.0	73	44.5	49	29.9	10	6.1
New Mexico	2	4.7	5	11.6	22	51.2	7	16.3	7	16.3
Ohio	8	8.7	18	19.6	43	46.7	11	12.0	12	13.0
Rhode Island	1	4.2	3	12.5	8	33.3	--	--	12	50.0
All States	91	6.4	170	11.9	622	43.5	256	17.9	290	20.3

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	11	5.9	12	6.5	108	58.1	49	26.3	6	3.2
Colorado	--	--	--	--	3	27.3	7	63.6	--	--
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	12	7.8	15	9.7	83	53.9	31	20.1	13	8.4
Maryland	8	5.2	6	3.9	78	51.0	57	37.3	4	2.6
Massachusetts	13	2.9	37	8.4	258	58.4	122	27.6	12	2.7
New Jersey	9	5.5	14	8.5	79	47.9	61	37.0	2	1.2
New Mexico	1	2.3	1	2.3	29	67.4	8	18.6	4	9.3
Ohio	5	5.5	16	17.6	45	49.5	17	18.7	8	8.8
Rhode Island	1	4.2	1	4.2	20	83.3	2	8.3	--	--
All States	65	4.5	105	7.3	781	54.4	426	29.7	59	4.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Test Administration Experience

Table H-8. TA Survey (PBA): Q1a. The policies and procedures within the Test Administrator Manual were easy for me to understand.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	5	5.7	13	14.8	47	53.4	23	26.1
Colorado	--	--	--	--	13	81.3	3	18.8
D.C.	--	--	--	--	2	100.0	--	--
Illinois	11	2.6	46	10.7	303	70.5	70	16.3
Maryland	1	4.2	1	4.2	17	70.8	5	20.8
Massachusetts	22	3.5	75	11.8	442	69.6	96	15.1
Mississippi	1	2.5	1	2.5	25	62.5	13	32.5
New Jersey	2	7.4	6	22.2	15	55.6	4	14.8
New Mexico	2	3.6	7	12.5	41	73.2	6	10.7
Ohio	14	6.3	32	14.4	155	69.8	21	9.5
Rhode Island	7	5.3	18	13.6	32	69.7	15	11.4
All States	109	4.8	272	12.1	1,513	67.2	358	15.9

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-9. TA Survey (EOY): Q1a. The policies and procedures within the Test Administrator Manual were easy for me to understand.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	12	6.5	18	9.7	127	68.3	29	15.6
Colorado	--	--	1	9.1	8	72.7	2	18.2
D.C.	--	--	--	--	2	100.0	--	--
Illinois	4	2.7	13	8.7	115	77.2	17	11.4
Maryland	7	4.6	19	12.5	97	63.8	29	19.1
Massachusetts	20	4.6	43	9.9	293	67.2	80	18.3
New Jersey	6	3.6	18	10.7	116	68.6	29	17.2
New Mexico	--	--	8	18.6	30	69.8	5	11.6
Ohio	5	5.5	16	17.6	62	68.1	8	8.8
Rhode Island	--	--	2	8.0	20	80.0	3	12.0
All States	61	4.3	147	10.3	973	68.1	247	17.3

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-10. TA Survey (PBA): Q1b. The instructions (including scripts for administering the assessment) within the Test Administrator Manual were easy for me to implement.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	4	4.5	21	23.9	41	46.6	22	25.0
Colorado	3	18.8	--	--	10	62.5	3	18.8
D.C.	--	--	--	--	2	100.0	--	--
Illinois	15	3.5	45	10.5	285	66.6	83	19.4
Maryland	1	4.2	--	--	15	62.5	8	33.3
Massachusetts	17	2.7	49	7.8	443	70.1	123	19.5
Mississippi	1	2.5	--	--	25	62.5	14	35.0
New Jersey	--	--	5	18.5	16	59.3	6	22.2
New Mexico	2	3.6	10	17.9	41	73.2	3	5.4
Ohio	14	6.3	22	9.9	156	70.3	30	13.5
Rhode Island	8	6.1	9	6.9	92	70.2	22	16.8
All States	113	5.0	232	10.4	1,473	65.7	423	18.9

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-11. TA Survey (EOY): Q1b. The instructions (including scripts for administering the assessment) within the Test Administrator Manual were easy for me to implement.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	15	8.0	20	10.7	123	65.8	29	15.5
Colorado	--	--	--	--	8	72.7	3	27.3
D.C.	--	--	--	--	2	100.0	--	--
Illinois	4	2.7	20	13.4	105	70.5	20	13.4
Maryland	7	4.6	24	15.9	86	57.0	34	22.5
Massachusetts	16	3.7	30	6.9	288	66.5	99	22.9
New Jersey	6	3.5	14	8.2	120	70.6	30	17.6
New Mexico	1	2.3	5	11.6	31	72.1	6	14.0
Ohio	2	2.2	11	12.0	68	73.9	11	12.0
Rhode Island	--	--	4	16.0	16	64.0	5	20.0
All States	58	4.1	142	9.9	941	65.9	287	20.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-12. TA Survey (PBA): Q1c. Students appeared to understand the directions I read to them during test administration.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	11	12.6	10	11.5	48	55.2	18	20.7
Colorado	--	--	3	18.8	10	62.5	3	18.8
D.C.	--	--	--	--	2	100.0	--	--
Illinois	36	8.4	95	22.1	239	55.7	59	13.8
Maryland	1	4.3	6	26.1	11	47.8	5	21.7
Massachusetts	26	4.1	83	13.2	434	68.9	87	13.8
Mississippi	3	7.7	4	10.3	21	53.8	11	28.2
New Jersey	--	--	2	7.4	20	74.1	5	18.5
New Mexico	7	12.7	9	16.4	37	67.3	2	3.6
Ohio	24	10.8	37	16.7	140	63.1	21	9.5
Rhode Island	6	4.5	24	18.2	88	66.7	14	10.6
All States	161	7.2	372	16.6	1,400	62.6	304	13.6

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-13. TA Survey (EOY): Q1c. Students appeared to understand the directions I read to them during test administration.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	16	8.6	20	10.7	122	65.2	29	15.5
Colorado	--	--	2	18.2	8	72.7	1	9.1
D.C.	--	--	--	--	2	100.0	--	--
Illinois	5	3.4	32	21.6	92	62.2	19	12.8
Maryland	13	8.8	19	12.8	88	59.5	28	18.9
Massachusetts	17	3.9	47	10.9	299	69.1	70	16.2
New Jersey	5	3.0	18	10.7	114	67.9	31	18.5
New Mexico	2	4.7	9	20.9	25	58.1	7	16.3
Ohio	4	4.4	12	13.2	64	70.3	11	12.1
Rhode Island	--	--	4	16.0	17	68.0	4	16.0
All States	69	4.9	176	12.4	937	65.9	239	16.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-14. TA Survey (PBA): Q1d. The instructions I read to the students covered all of the information necessary to take the test.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	9	10.3	14	16.1	44	50.6	20	23.0
Colorado	2	12.5	2	12.5	10	62.5	2	12.5
D.C.	--	--	--	--	2	100.0	--	--
Illinois	29	6.8	84	19.7	258	60.6	55	12.9
Maryland	1	4.2	4	16.7	15	62.5	4	16.7
Massachusetts	25	4.0	136	21.7	384	61.2	82	13.1
Mississippi	3	7.9	5	13.2	20	52.6	10	26.3
New Jersey	--	--	8	29.6	15	55.6	4	14.8
New Mexico	7	12.5	11	19.6	34	60.7	4	7.1
Ohio	20	9.0	42	18.8	141	63.2	20	9.0
Rhode Island	6	4.6	29	22.3	83	63.8	12	9.2
All States	160	7.2	457	20.5	1,330	59.6	284	12.7

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-15. TA Survey (EOY): Q1d. The instructions I read to the students covered all of the information necessary to take the test.

	Strongly Disagree		Disagree		Agree		Strongly Agree	
State	n	%	n	%	n	%	n	%
Arkansas	12	6.5	24	12.9	123	66.1	27	14.5
Colorado	--	--	2	18.2	9	81.8	--	--
D.C.	--	--	--	--	2	100.0	--	--
Illinois	8	5.4	28	18.8	98	65.8	15	10.1
Maryland	13	8.6	35	23.2	80	53.0	23	15.2
Massachusetts	18	4.2	70	16.2	276	63.9	68	15.7
New Jersey	5	3.0	27	16.1	105	62.5	31	18.5
New Mexico	2	4.7	6	14.0	28	65.1	7	16.3
Ohio	3	3.3	19	20.9	60	65.9	9	9.9
Rhode Island	--	--	4	16.0	17	68.0	4	16.0
All States	67	4.7	237	16.7	893	62.8	226	15.9

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-16. TA Survey (PBA): Q1a-1d Summary Table		
State	Mean	Standard Deviation
Arkansas	11.56	3.14
Colorado	11.75	2.49
D.C.	12.00	0.0
Illinois	11.49	2.35
Maryland	12.00	2.52
Massachusetts	11.71	2.30
Mississippi	12.33	2.93
New Jersey	11.78	2.15
New Mexico	10.91	2.29
Ohio	11.13	2.46
Rhode Island	11.31	2.52
All States	11.46	2.53

Note. α = .88. Scale scores were computed by taking the sum of items 1a-1d.

Table H-17. TA Survey (EOY): Q1a-1d Summary Table		
State	Mean	Standard Deviation
Arkansas	11.55	2.75
Colorado	12.09	1.58
D.C.	12.00	0.00
Illinois	11.47	2.14
Maryland	11.47	2.68
Massachusetts	11.90	2.39
New Jersey	11.91	2.27
New Mexico	11.70	1.97
Ohio	11.39	2.28
Rhode Island	12.08	1.82
All States	11.78	2.43

Note. α = .89. Scale scores were computed by taking the sum of items 1a-1d.

Table H-18. TA Survey (PBA): Q2. Please indicate if student(s) asked questions about the following topics. Select all that apply.[a]

	Clarification on Instructions		When to Use Calculator		Mark Answers & Enter Responses		After Completed Test		Other	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	26	29.2	12	13.5	28	31.5	24	27.0	15	16.9
Colorado	5	27.8	1	5.6	6	33.3	5	27.8	3	16.7
D.C.	--	--	--	--	1	50.0	1	50.0	1	50.0
Illinois	213	48.4	57	13.0	209	47.5	71	16.1	75	17.0
Maryland	8	30.8	3	11.5	10	38.5	8	30.8	5	19.2
Massachusetts	248	37.5	110	16.6	268	40.5	109	16.5	108	16.3
Mississippi	7	17.5	3	7.5	13	32.5	2	5.0	8	20.0
New Jersey	9	29.0	7	22.6	10	32.3	15	48.4	3	9.7
New Mexico	19	33.3	12	21.1	25	43.9	22	38.6	7	12.3
Ohio	102	42.7	36	15.1	111	46.4	61	25.5	47	19.7
Rhode Island	51	37.5	20	14.7	39	28.7	19	14.0	22	16.2
All States[b]	908	38.9	298	12.8	878	37.6	391	16.7	374	16.0

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-19. TA Survey (EOY): Q2. Please indicate if student(s) asked questions about the following topics. Select all that apply.[a]

	Clarification on Instructions		When to Use Calculator		Mark Answers & Enter Responses		After Completed Test		Other	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	41	21.7	33	17.5	54	28.6	47	24.9	12	6.3
Colorado	7	63.6	--	--	6	54.5	1	9.1	--	--
D.C.	2	100.0	--	--	1	50.0	1	50.0	--	--
Illinois	56	35.0	22	13.8	61	38.1	29	18.1	22	13.8
Maryland	57	37.0	48	31.2	60	39.0	47	30.5	16	10.4
Massachusetts	148	33.0	65	14.5	173	38.5	49	10.9	66	14.7
New Jersey	40	23.1	36	20.8	57	32.9	57	32.9	20	11.6
New Mexico	12	27.3	10	22.7	17	38.6	11	25.0	9	20.5
Ohio	26	27.7	17	18.1	41	43.6	18	19.1	19	20.2
Rhode Island	12	48.0	2	8.0	12	48.0	2	8.0	4	16.0
All States[b]	438	29.8	240	16.3	510	34.7	276	18.8	184	12.5

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-20. TA Survey (PBA): Q3. Did your students have sufficient time to finish the test?

	Very Early		On Time		Rush to Finish		Did Not Finish	
State	n	%	n	%	n	%	n	%
Arkansas	61	70.9	22	25.6	3	3.5	--	--
Colorado	9	56.3	7	43.8	--	--	--	--
D.C.	1	50.0	1	50.0	--	--	--	--
Illinois	154	36.5	252	59.7	12	2.8	4	0.9
Maryland	7	30.4	15	65.2	--	--	1	4.3
Massachusetts	71	11.5	393	63.9	111	18.0	40	6.5
Mississippi	3	7.9	24	63.2	9	23.7	2	5.3
New Jersey	13	50.0	12	46.2	1	3.8	--	--
New Mexico	9	16.7	37	68.5	7	13.0	1	1.9
Ohio	61	27.9	139	63.5	16	7.3	3	1.4
Rhode Island	48	36.9	73	56.2	5	3.8	4	3.1
All States	556	25.5	1,351	61.9	215	9.8	61	2.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-21. TA Survey (EOY): Q3. Did your students have sufficient time to finish the test?

	Very Early		On Time		Rush to Finish		Did Not Finish	
State	n	%	n	%	n	%	n	%
Arkansas	106	57.6	68	37.0	5	2.7	5	2.7
Colorado	5	45.5	6	54.5	--	--	--	--
D.C.	1	50.0	1	50.0	--	--	--	--
Illinois	67	45.0	76	51.0	5	3.4	1	0.7
Maryland	102	67.1	49	32.2	1	0.7	--	--
Massachusetts	75	17.9	264	63.2	56	13.4	23	5.5
New Jersey	93	57.4	66	40.7	1	0.6	2	1.2
New Mexico	7	16.3	28	65.1	8	18.6	--	--
Ohio	27	30.7	55	62.5	6	6.8	--	--
Rhode Island	6	25.0	16	66.7	1	4.2	1	4.2
All States	522	37.6	726	52.2	105	7.6	37	2.7

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Accessibility Features and Accommodations

Table H-22. TA Survey (PBA): Q1. Did you read the "PARCC Accessibility Features and Accommodations Manual" prior to administration?

	Yes		No	
State	n	%	n	%
Arkansas	74	84.1	14	15.9
Colorado	9	56.3	7	43.8
D.C.	2	100.0	--	--
Illinois	330	77.6	95	22.4
Maryland	20	83.3	4	16.7
Massachusetts	512	82.1	112	17.9
Mississippi	18	48.6	19	51.4
New Jersey	22	88.0	3	12.0
New Mexico	44	78.6	12	21.4
Ohio	188	85.5	32	14.5
Rhode Island	113	86.9	17	13.1
All States	1,872	84.0	356	16.0

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-23. TA Survey (EOY): Q1. Did you read the "PARCC Accessibility Features and Accommodations Manual" prior to administration?

	Yes		No	
State	n	%	n	%
Arkansas	143	77.3	42	22.7
Colorado	8	72.7	3	27.3
D.C.	2	100.0	--	--
Illinois	116	77.3	34	22.3
Maryland	118	78.1	33	21.9
Massachusetts	372	87.1	55	12.9
New Jersey	136	81.0	32	19.0
New Mexico	36	85.7	6	14.3
Ohio	70	77.8	20	22.2
Rhode Island	19	76.0	6	24.0
All States	1,172	85.9	242	17.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-24. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

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	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	2	2.4	6	7.1	46	54.8	11	13.1	19	22.6
Colorado	--	--	1	7.1	6	42.9	2	14.3	5	35.7
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	11	2.7	41	10.1	195	48.3	47	11.6	110	27.2
Maryland	1	4.3	2	8.7	11	47.8	5	21.7	4	17.4
Massachusetts	12	2.1	76	13.0	323	55.3	46	7.9	127	21.7
Mississippi	--	--	2	5.1	16	41.0	8	20.5	13	33.3
New Jersey	--	--	4	16.0	13	52.0	4	16.0	4	16.0
New Mexico	3	5.8	4	7.7	26	50.0	5	9.6	14	26.9
Ohio	16	7.7	33	15.9	102	49.3	10	4.8	46	22.2
Rhode Island	5	4.1	15	12.2	71	57.7	6	4.9	26	21.1
All States	68	3.2	220	10.5	1,145	54.4	207	9.8	465	22.1

Accessibility & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	4	4.8	8	9.5	42	50.0	12	14.3	18	21.4
Colorado	--	--	1	7.1	4	28.6	2	14.3	7	50.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	15	3.8	47	11.8	147	36.8	32	8.0	158	39.6
Maryland	1	4.3	2	8.7	7	30.4	4	17.4	9	39.1
Massachusetts	17	3.0	72	12.5	257	44.7	31	5.4	198	34.4
Mississippi	--	--	4	10.5	13	34.2	7	18.4	14	36.8
New Jersey	--	--	4	16.7	13	54.2	1	4.2	6	25.0
New Mexico	3	5.8	3	5.8	26	50.0	5	9.6	15	28.8
Ohio	19	9.3	31	15.2	76	37.3	6	2.9	72	35.3
Rhode Island	4	3.3	15	12.2	45	36.6	4	3.3	55	44.7
All States	75	3.6	224	10.8	893	42.9	152	7.3	736	35.4

Personal Needs Profile Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	2	2.5	7	8.6	40	49.4	9	11.1	23	28.4
Colorado	--	--	1	7.7	3	23.1	1	7.7	8	61.5
D.C.	--	--	--	--	1	50.0	1	50.0	--	--
Illinois	15	3.8	49	12.4	96	24.4	20	5.1	214	54.3
Maryland	--	--	1	4.3	6	26.1	4	17.4	12	52.2
Massachusetts	15	2.6	66	11.6	186	32.6	25	4.4	278	48.8
Mississippi	--	--	4	10.3	12	30.8	6	15.4	17	43.6
New Jersey	--	--	6	24.0	9	36.0	2	8.0	8	32.0
New Mexico	3	5.8	2	3.8	22	42.3	4	7.7	21	40.4
Ohio	16	7.9	34	16.7	57	28.1	3	1.5	93	45.8
Rhode Island	7	5.7	15	12.3	30	24.6	4	3.3	66	54.1
All States	71	3.5	219	10.7	673	32.8	113	5.5	976	47.6

(continued)

Table H-24. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Personal Needs Profile Field Definitions

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	4	4.9	7	8.6	40	49.4	9	11.1	21	25.9
Colorado	--	--	1	7.7	3	23.1	1	7.7	8	44.4
D.C.	--	--	--	--	1	50.0	1	50.0	--	--
Illinois	18	4.5	48	12.1	102	25.6	21	5.3	209	52.5
Maryland	--	--	--	--	8	36.4	3	13.6	11	50.0
Massachusetts	14	2.5	67	11.8	198	34.7	26	4.6	265	46.5
Mississippi	--	--	5	13.2	11	28.9	6	15.8	16	42.1
New Jersey	--	--	7	28.0	6	24.0	2	8.0	10	40.0
New Mexico	3	6.3	2	4.2	22	45.8	2	4.2	19	39.6
Ohio	16	8.0	32	16.0	61	30.5	5	2.5	86	43.0
Rhode Island	5	4.3	14	12.0	34	29.1	3	2.6	61	52.1
All States	72	3.5	223	10.9	711	34.7	116	5.7	927	45.2

Training or resources from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	6.2	9	11.1	36	44.4	10	12.3	21	25.9
Colorado	1	7.7	1	7.7	3	23.1	1	7.7	7	53.8
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	34	8.6	56	14.2	82	20.8	24	6.1	198	50.3
Maryland	--	--	--	--	9	40.9	1	4.5	12	54.5
Massachusetts	39	6.8	85	14.9	156	27.3	28	4.9	264	46.2
Mississippi	3	7.9	4	10.5	10	26.3	6	15.8	15	39.5
New Jersey	2	8.3	7	29.2	7	29.2	1	4.2	7	29.2
New Mexico	5	9.8	6	11.8	25	49.0	1	2.0	14	27.5
Ohio	31	15.3	35	17.3	52	25.7	4	2.0	80	39.6
Rhode Island	7	5.8	22	18.2	30	24.8	2	1.7	60	49.6
All States	163	7.9	281	13.7	620	30.1	117	5.7	877	42.6

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	6	7.1	5	6.0	47	56.0	14	16.7	12	14.3
Colorado	1	7.7	2	15.4	3	23.1	1	7.7	6	46.2
D.C.	--	--	--	--	1	50.0	--	--	1	50.0
Illinois	20	5.0	32	8.0	155	38.8	59	14.8	134	33.5
Maryland	--	--	2	8.7	8	34.8	5	21.7	8	34.8
Massachusetts	29	5.0	79	13.7	225	39.1	57	9.9	186	32.3
Mississippi	2	5.1	2	5.1	16	41.0	12	30.8	7	17.9
New Jersey	--	--	4	16.0	14	56.0	4	16.0	3	12.0
New Mexico	4	8.0	4	8.0	23	46.0	5	10.0	14	28.0
Ohio	17	8.3	21	10.2	95	46.1	23	11.2	50	24.3
Rhode Island	6	4.8	21	16.8	51	40.8	5	3.7	42	30.9
All States	111	5.3	217	10.4	862	41.2	276	13.2	625	29.9

(continued)

Table H-24. TA Survey (PBA): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	3	3.6	3	3.6	52	62.7	18	21.7	7	8.4
Colorado	--	--	2	14.3	9	64.3	3	21.4	--	--
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	13	3.3	18	4.5	201	50.5	85	21.4	81	20.4
Maryland	--	--	2	8.7	10	43.5	9	39.1	2	8.7
Massachusetts	21	3.5	51	8.6	326	55.1	133	22.5	61	10.3
Mississippi	2	5.1	4	10.3	13	33.3	14	35.9	6	15.7
New Jersey	--	--	3	12.0	14	56.0	6	24.0	2	8.0
New Mexico	5	9.6			28	53.8	13	25.0	6	11.5
Ohio	16	7.7	20	9.7	108	52.2	30	14.5	33	15.9
Rhode Island	5	4.0	17	13.5	66	52.4	11	8.7	27	21.4
All States	84	4.0	144	6.8	1,142	53.7	496	23.3	259	12.2

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-25. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

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	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	7	3.9	15	8.4	112	62.6	18	10.1	27	15.1
Colorado	--	--	1	10.0	7	70.0	1	10.0	1	10.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.7	14	10.1	80	57.6	9	6.5	35	25.2
Maryland	7	4.9	16	11.3	77	54.2	11	7.7	31	21.8
Massachusetts	14	3.6	41	10.4	226	57.4	44	11.2	69	17.5
New Jersey	5	3.3	8	5.3	92	61.3	8	5.3	37	24.7
New Mexico	1	2.5	4	10.0	26	65.0	2	5.0	7	17.5
Ohio	1	1.2	9	10.7	41	48.8	5	6.0	28	33.3
Rhode Island	--	--	2	8.7	13	56.5	1	4.3	7	30.4
All States	42	3.2	115	8.7	768	58.2	132	10.0	262	19.9

Accessibility & Accommodations Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	5.1	14	7.9	103	57.9	15	8.4	37	20.8
Colorado	--	--	1	10.0	8	80.0	--	--	1	10.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	3	2.2	16	11.9	56	41.5	6	4.4	54	40.0
Maryland	8	5.6	16	11.2	56	39.2	8	5.6	55	38.5
Massachusetts	15	3.8	48	12.2	160	40.8	27	6.9	142	36.2
New Jersey	5	3.4	11	7.6	74	54.0	2	1.4	53	36.6
New Mexico	1	2.6	4	10.3	23	59.0	2	5.1	9	23.1
Ohio	2	2.4	9	10.8	28	33.7	3	3.6	41	49.4
Rhode Island	1	4.5	1	4.5	8	36.4	1	4.5	11	50.0
All States	51	3.9	126	9.7	604	46.3	88	6.7	435	33.4

Personal Needs Profile Training Module

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	5.0	12	6.7	93	52.0	13	7.3	52	29.1
Colorado	--	--	1	10.0	6	60.0	--	--	3	30.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	2	1.5	15	11.0	47	34.6	3	2.2	69	50.7
Maryland	7	4.9	13	9.2	38	26.8	5	3.5	79	55.6
Massachusetts	17	4.4	45	11.6	115	29.6	14	3.6	197	50.8
New Jersey	5	3.4	14	9.6	56	38.4	2	1.4	69	47.3
New Mexico	--	--	7	17.9	19	48.7	1	2.6	12	30.8
Ohio	1	1.2	8	9.6	28	33.7	1	1.2	45	54.2
Rhode Island	2	9.1	1	4.5	5	22.7	1	4.5	13	59.1
All States	47	3.6	124	9.5	488	37.5	57	4.4	584	44.9

(continued)

Table H-25. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Personal Needs Profile Field Definitions

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	5.1	14	7.9	88	49.7	13	7.3	53	29.9
Colorado	--	--	--	--	6	60.0	--	--	4	40.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	2	1.5	17	12.6	47	34.8	3	2.2	66	48.9
Maryland	7	5.0	13	9.2	34	24.1	6	4.3	81	57.4
Massachusetts	19	4.9	46	11.9	120	31.1	13	3.4	188	48.7
New Jersey	5	3.5	13	9.1	53	37.1	4	2.8	68	47.6
New Mexico	--	--	8	21.1	18	47.4	--	--	12	31.6
Ohio	3	3.6	7	8.4	35	42.2	3	3.6	35	42.2
Rhode Island	1	5.0	2	10.0	4	20.0	1	5.0	12	60.0
All States	49	3.8	131	10.2	488	37.8	60	4.7	562	43.6

Training or resources from my state department of education

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	8	4.5	17	9.6	94	52.8	11	6.2	48	27.0
Colorado	--	--	--	--	4	40.0	--	--	6	60.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	12	8.9	23	17.0	38	28.1	5	3.7	57	42.2
Maryland	8	5.6	26	18.2	32	22.4	4	2.8	73	51.0
Massachusetts	22	5.6	71	18.2	102	26.2	15	3.8	180	46.2
New Jersey	12	8.3	26	17.9	51	35.2	3	2.1	53	36.6
New Mexico	1	2.6	10	25.6	16	1.0	1	2.6	11	28.2
Ohio	7	8.4	9	10.8	24	28.9	3	3.6	40	48.2
Rhode Island	3	13.6	--	--	3	13.6	--	--	16	72.7
All States	80	6.1	197	15.1	436	33.5	59	4.5	529	40.7

Training from my district

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	7	3.9	14	7.8	106	58.9	28	15.6	25	13.9
Colorado	--	--	--	--	5	50.0	2	20.0	3	30.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	6	4.4	19	13.9	56	40.9	14	10.2	42	30.7
Maryland	10	7.0	21	14.8	51	35.9	5	3.5	55	38.7
Massachusetts	16	4.1	47	12.1	151	38.7	57	14.6	119	30.5
New Jersey	10	6.6	12	7.9	77	51.0	30	19.9	22	14.6
New Mexico	2	5.0	5	12.5	24	60.0	1	2.5	8	20.0
Ohio	5	5.8	10	11.6	34	39.5	11	12.8	26	30.2
Rhode Island	1	4.5	1	4.5	7	31.8	--	--	13	59.1
All States	61	4.6	141	10.7	591	44.9	180	13.7	344	26.1

(continued)

Table H-25. TA Survey (EOY): Q2. Please indicate your level of agreement with the following statement: "This particular item/component effectively prepared me to administer accessibility features and accommodations on the PARCC assessments."

Training from my school

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	8	4.4	10	5.6	114	63.3	40	22.2	8	4.4
Colorado	--	--	--	--	5	50.0	5	50.0	--	--
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	4	2.9	15	10.9	71	51.8	21	15.3	26	19.0
Maryland	6	4.2	5	3.5	78	54.9	41	28.9	12	8.5
Massachusetts	12	3.0	35	8.7	225	55.8	102	25.3	29	7.2
New Jersey	6	3.9	15	9.9	78	51.3	39	25.7	14	9.2
New Mexico	1	2.6	3	7.7	29	74.4	1	2.6	5	12.8
Ohio	3	3.5	14	16.5	32	37.6	14	16.5	22	25.9
Rhode Island	2	9.1	1	4.5	14	63.6	1	4.5	4	18.2
All States	45	3.4	102	7.7	730	54.8	321	24.1	133	10.0

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-26. TA Survey (PBA): Q3. Did you administer the following accessibility features or accommodations to any of your students? Select all that apply.[a]

	Human Reader Math		Human Reader English		Human Scribe		Human Signer		Test Directions Native Language		Text-to-Speech		Extended Time		Word Prediction Device		Calculator on Non-Calculator Section		Other Tech Device	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	24	27.0	8	9.0	5	5.6	--	--	5	5.6	1	1.1	31	34.8	1	1.1	11	12.4	5	5.6
Colorado	2	11.1	--	--	--	--	--	--	2	11.1	--	--	4	22.2	--	--	--	--	1	5.6
D.C.	1	50.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Illinois	102	23.2	44	10.0	43	9.8	2	0.5	24	5.5	3	0.7	142	32.3	1	0.2	60	13.6	5	1.1
Maryland	6	23.1	3	11.5	3	11.5	--	--	--	--	--	--	10	38.5	--	--	7	26.9	--	--
Massachusetts	184	27.8	102	15.4	107	16.2	4	0.6	42	6.3	5	0.8	294	44.4	4	0.6	79	11.9	37	5.6
Mississippi	6	15.0	4	10.0	--	--	--	--	3	7.5	--	--	6	15.0	--	--	1	2.5	--	--
New Jersey	5	16.1	7	22.6	3	9.7	--	--	2	6.5	3	9.7	17	54.8	--	--	15	48.4	1	3.2
New Mexico	13	22.8	9	15.8	4	7.0	--	--	4	7.0	1	1.8	16	28.1	--	--	5	8.8	2	3.5
Ohio	84	35.1	39	16.3	24	10.0	2	0.8	16	6.7	1	0.4	89	37.2	--	--	25	10.5	1	0.4
Rhode Island	15	11.0	6	4.4	5	3.7	1	0.7	4	2.9	--	--	33	24.3	1	0.7	4	2.9	2	1.5
All States[b]	630	27.0	356	15.2	236	10.1	11	0.5	133	5.7	23	1.0	892	38.2	9	0.4	355	15.2	70	3.0

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-27. TA Survey (EOY): Q3. Did you administer the following accessibility features or accommodations to any of your students? Select all that apply.[a]

	Human Reader Math		Human Reader English		Human Scribe		Human Signer		Test Directions Native Language		Text-to-Speech		Extended Time		Word Prediction Device		Calculator on Non-Calculator Section		Other Tech Device	
State	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Arkansas	44	23.3	29	15.3	6	3.2	--	--	12	6.3	2	1.1	34	18.0	--	--	8	4.2	4	2.1
Colorado	1	9.1	1	9.1	1	9.1	--	--	--	--	--	--	2	18.2	--	--	--	--	--	--
D.C.	--	--	--	--	--	--	--	--	--	--	--	--	1	50.0	--	--	--	--	--	--
Illinois	28	17.5	11	6.9	5	3.1	--	--	9	5.6	--	--	39	24.4	--	--	12	7.5	--	--
Maryland	26	16.9	21	13.6	28	18.2	--	--	1	0.6	--	--	51	33.1	--	--	41	26.6	5	3.2
Massachusetts	141	31.4	75	16.7	80	17.8	3	0.7	39	8.7	1	0.2	211	47.0	5	1.1	53	11.8	17	3.8
New Jersey	22	12.7	21	12.1	11	6.4	1	0.6	5	2.9	7	4.0	59	34.1	1	0.6	46	26.6	5	2.9
New Mexico	9	20.5	2	4.5	2	4.5	--	--	2	4.5	--	--	14	31.8	--	--	4	9.1	--	--
Ohio	27	28.7	13	13.8	9	9.6	--	--	6	6.4	--	--	36	38.3	--	--	14	14.9	--	--
Rhode Island	3	12.0	2	8.0	1	4.0	--	--	2	8.0	--	--	7	28.0	--	--	--	--	--	--
All States[b]	366	24.9	229	15.6	157	10.7	5	0.3	81	5.5	12	0.8	538	36.6	10	0.7	242	16.5	36	2.5

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-28. TA Survey (PBA): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix A: Accessibility Features & Accommodations for Students taking the Paper-Based PARCC Assessments

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	2	2.5	3	3.7	38	46.9	9	11.1	29	35.8
Colorado	--	--	--	--	3	27.3	1	9.1	7	63.6
D.C.	--	--	--	--	--	--	1	50.0	1	50.0
Illinois	7	1.8	16	4.1	156	39.6	30	7.6	185	47.0
Maryland	1	4.2	--	--	11	45.8	2	8.3	10	41.7
Massachusetts	13	2.9	45	8.3	269	49.4	41	7.5	173	31.8
Mississippi	--	--	1	2.9	8	22.9	8	22.9	18	51.4
New Jersey	--	--	2	8.0	14	56.0	2	8.0	7	28.0
New Mexico	2	4.1	4	8.2	17	34.7	4	8.2	22	44.9
Ohio	11	5.5	24	12.1	90	45.2	5	2.5	69	34.7
Rhode Island	2	1.7	9	7.6	53	44.5	7	5.9	48	40.3
All States	50	2.5	128	6.4	926	46.0	168	8.4	739	36.7

Appendix B: Test Administration Protocol for the Human Reader Accommodations for ELA/L and the Human Reader Accessibility Feature for Math

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	3	3.8	2	2.5	32	40.0	5	6.3	38	47.8
Colorado	--	--	--	--	2	18.2	1	9.1	8	72.7
D.C.	--	--	--	--	1	50.0	--	--	1	50.0
Illinois	12	3.1	16	4.1	97	24.8	18	4.6	248	63.4
Maryland	1	4.2	2	8.3	3	12.5	4	16.7	14	58.3
Massachusetts	12	2.2	29	5.4	169	31.2	26	4.8	305	56.4
Mississippi	--	--	1	2.9	7	20.0	6	17.1	21	60.0
New Jersey	--	--	3	12.0	8	32.0	1	4.0	13	52.0
New Mexico	2	4.0	4	8.0	12	24.0	4	8.0	28	56.0
Ohio	9	4.6	22	11.2	66	33.5	4	2.0	96	48.7
Rhode Island	4	3.4	7	5.9	19	16.1	4	3.4	84	71.2
All States	50	2.5	107	5.3	612	30.5	119	5.9	1,116	55.7

Appendix C: Protocol for the Use of the Scribe and for Transcribing Student Responses

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	1	1.3	2	2.5	26	32.5	7	8.8	44	55.0
Colorado	--	--	--	--	2	18.2	1	9.1	8	72.7
D.C.	--	--	--	--	--	--	--	--	2	100.0
Illinois	7	1.8	15	3.9	75	19.3	13	3.4	278	71.6
Maryland	--	--	1	4.3	7	30.4	2	8.7	13	56.5
Massachusetts	13	2.4	35	6.5	134	24.8	14	2.6	345	63.8
Mississippi	--	--	1	2.9	5	14.3	5	14.3	24	68.6
New Jersey	--	--	3	12.0	6	24.0	--	--	16	64.0
New Mexico	2	4.2	2	4.2	10	20.8	4	8.3	30	62.5
Ohio	7	3.6	18	9.2	47	24.0	3	1.5	121	61.7
Rhode Island	2	1.7	4	3.4	16	13.8	2	1.7	92	79.3
All States	37	1.9	100	5.0	463	23.3	75	3.8	1,311	66.0

(continued)

Table H-28. TA Survey (PBA): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix E: Guidance for Selecting and Administering the Extended Time Accommodation

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	1	1.3	2	2.5	34	43.0	9	11.4	33	41.8
Colorado	--	--	1	9.1	4	36.4	1	9.1	5	45.5
D.C.	--	--	--	--	--	--	--	--	2	100.0
Illinois	8	2.1	12	3.1	122	31.3	22	5.6	226	57.9
Maryland	--	--	--	--	10	41.7	4	16.7	10	41.7
Massachusetts	13	2.4	33	6.1	229	42.3	31	5.7	236	43.5
Mississippi	--	--	1	2.9	7	20.0	7	20.0	20	57.1
New Jersey	--	--	--	--	14	58.3	2	8.3	8	33.3
New Mexico	1	2.2	2	4.3	13	28.3	7	15.2	23	50.0
Ohio	7	3.6	19	9.7	72	36.7	5	2.6	93	47.4
Rhode Island	2	1.7	3	2.5	31	26.3	9	7.6	73	61.9
All States	39	2.0	91	4.6	767	38.5	148	7.4	949	47.6

Appendix I: PARCC ELA Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	2	2.5	1	1.3	26	32.5	6	7.5	45	56.3
Colorado	--	--	--	--	3	27.3	1	9.1	7	63.6
D.C.	--	--	--	--	--	--	--	--	2	100.0
Illinois	6	1.6	11	2.8	46	11.9	10	2.6	313	81.1
Maryland	--	--	1	4.3	3	13.0	2	8.7	17	73.9
Massachusetts	7	1.3	13	2.4	61	11.3	11	2.0	447	82.9
Mississippi	--	--	1	2.9	5	14.3	5	14.3	24	68.8
New Jersey	--	--	2	8.0	7	28.0	--	--	16	64.0
New Mexico	2	4.2	3	6.6	8	16.7	4	8.3	31	64.6
Ohio	9	4.6	15	7.7	30	15.5	1	0.5	139	71.6
Rhode Island	2	1.7	3	2.5	8	6.8	1	0.8	104	88.1
All States	33	1.7	68	3.4	310	15.7	58	2.9	1,507	76.3

Appendix J: PARCC Math Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	2	2.5	2	2.5	26	32.9	6	7.6	43	54.4
Colorado	--	--	--	--	2	18.2	1	9.1	8	72.7
D.C.	--	--	--	--	--	--	--	--	2	100.0
Illinois	6	1.6	12	3.1	45	11.7	11	2.9	311	80.8
Maryland	--	--	1	4.2	3	12.5	2	8.3	18	75.0
Massachusetts	8	1.5	13	2.4	62	11.5	10	1.9	444	82.7
Mississippi	--	--	1	2.9	5	14.3	5	14.3	24	68.6
New Jersey	--	--	3	13.0	6	26.1	--	--	14	60.9
New Mexico	1	2.1	3	6.4	10	21.3	4	8.5	29	61.7
Ohio	9	4.6	13	6.6	35	17.8	1	0.5	139	70.6
Rhode Island	2	1.7	2	1.7	10	8.5	1	0.9	102	87.2
All States	33	1.7	69	3.5	328	16.6	59	3.0	1,484	75.2

(continued)

Table H-28. TA Survey (PBA): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Assistive Technology Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	1	1.3	3	3.8	23	28.8	5	6.3	48	60.0
Colorado	--	--	--	--	2	18.2	1	9.1	8	72.7
D.C.	--	--	--	--	--	--	--	--	2	100.0
Illinois	6	1.6	14	3.6	48	12.5	10	2.6	307	79.7
Maryland	--	--	--	--	5	20.8	2	8.3	17	70.8
Massachusetts	14	2.6	21	3.9	77	14.4	9	1.7	414	77.4
Mississippi	--	--	1	2.9	5	14.7	5	14.7	23	67.6
New Jersey	--	--	3	12.0	4	16.0	1	4.0	17	68.0
New Mexico	2	4.3	3	6.4	6	12.8	3	6.4	33	70.2
Ohio	8	4.1	15	7.8	27	14.0	1	0.5	142	73.6
Rhode Island	3	2.6	3	2.6	11	9.4	1	0.9	99	84.6
All States	38	1.9	86	4.4	353	18.0	63	3.2	1,426	72.5

PARCC Technical Assistance Bulletin – PARCC Assessments and Students with Visual Impairment, Including Blindness

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	1	1.3	2	2.6	24	31.2	6	7.8	44	57.1
Colorado	--	--	--	--	2	18.2	1	9.1	8	72.7
D.C.	--	--	--	--	--	--	--	--	2	100.0
Illinois	5	1.3	11	2.9	41	10.7	--	--	319	83.3
Maryland	--	--	--	--	5	20.8	--	--	19	79.2
Massachusetts	8	1.5	11	2.0	61	11.3	7	1.3	453	83.9
Mississippi	--	--	1	2.9	5	14.3	5	14.3	24	68.6
New Jersey	--	--	2	8.0	4	16.0	--	--	19	76.0
New Mexico	2	4.3	2	4.3	8	17.0	3	6.4	32	68.1
Ohio	7	3.6	16	8.2	24	12.4	--	--	24	12.4
Rhode Island	3	2.6	3	2.6	8	6.9	1	0.9	101	87.1
All States	29	1.5	63	3.2	283	14.4	44	2.2	1,547	78.7

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-29. TA Survey (EOY): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix A: Accessibility Features & Accommodations for Students taking the Paper-Based PARCC Assessments

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	2.9	7	4.0	77	44.0	14	8.0	72	41.1
Colorado	--	--	1	10.0	2	20.0	1	10.0	6	60.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.8	7	5.3	50	38.2	5	3.8	68	51.9
Maryland	5	3.7	3	2.2	64	47.8	9	6.7	53	39.6
Massachusetts	12	3.2	33	8.7	185	48.7	43	11.3	107	28.2
New Jersey	3	2.1	3	2.1	37	25.5	5	3.4	97	66.9
New Mexico	1	2.7	2	5.4	17	45.9	1	2.7	16	43.2
Ohio	2	2.4	5	6.1	35	42.7	2	2.4	38	46.3
Rhode Island	--	--	--	--	11	47.8	2	8.7	10	43.5
All States	32	2.5	70	5.5	560	44.1	112	8.8	497	39.1

Appendix B: Test Administration Protocol for the Human Reader Accommodations for ELA/L and the Human Reader Accessibility Feature for Math

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	6	3.6	8	4.7	60	35.5	7	4.1	88	52.1
Colorado	--	--	--	--	1	10.0	--	--	9	90.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.8	6	4.6	30	23.1	3	2.3	90	69.2
Maryland	2	1.5	5	3.8	30	22.6	7	5.3	89	66.9
Massachusetts	10	2.6	23	6.1	121	31.9	28	7.4	197	52.0
New Jersey	3	2.1	4	2.8	30	21.0	5	3.5	101	70.6
New Mexico	1	2.7	3	8.1	13	35.1	1	2.7	19	51.4
Ohio	4	4.9	4	4.9	23	28.0	--	--	51	62.2
Rhode Island	--	--	1	4.8	--	--	1	4.8	19	90.5
All States	30	2.4	59	4.7	374	29.9	72	5.8	717	57.3

Appendix C: Protocol for the Use of the Scribe and for Transcribing Student Responses

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	4	2.4	8	4.8	47	28.1	6	3.6	102	61.1
Colorado	--	--	--	--	2	20.0	--	--	8	80.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	2	1.5	5	3.8	16	12.3	--	--	107	82.3
Maryland	2	1.5	5	3.8	34	25.8	7	5.3	84	63.6
Massachusetts	9	2.4	21	5.6	91	24.3	20	5.3	233	62.3
New Jersey	3	2.1	5	3.4	31	21.2	5	3.4	102	69.9
New Mexico	1	2.7	2	5.4	10	27.0	--	--	24	64.9
Ohio	3	3.7	3	3.7	20	24.4	--	--	56	68.3
Rhode Island	--	--	--	--	--	--	1	4.8	20	95.2
All States	27	2.2	52	4.2	302	24.3	52	4.2	812	65.2

(continued)

Table H-29. TA Survey (EOY): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Appendix E: Guidance for Selecting and Administering the Extended Time Accommodation

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	4	2.4	7	4.1	63	37.3	9	5.3	86	50.9
Colorado	1	10.0	--	--	2	20.0	--	--	7	70.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.8	6	4.6	37	28.2	4	3.1	83	63.4
Maryland	3	2.3	5	3.8	45	34.1	8	6.1	71	53.8
Massachusetts	8	2.1	24	6.3	149	39.3	42	11.1	156	41.2
New Jersey	3	2.1	7	4.8	48	32.9	8	5.5	80	54.8
New Mexico	--	--	1	2.7	16	43.2	1	2.7	19	51.4
Ohio	3	3.8	2	2.5	34	42.5	1	1.3	40	50.0
Rhode Island	--	--	--	--	5	23.8	1	4.8	15	71.4
All States	25	2.0	54	4.3	474	37.8	97	7.7	603	48.1

Appendix I: PARCC ELA Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	3.0	7	4.2	45	26.9	4	2.4	106	63.5
Colorado	--	--	1	10.0	1	10.0	--	--	8	80.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.8	4	3.1	11	8.5	1	0.8	112	86.8
Maryland	2	1.5	--	--	14	10.6	5	3.8	111	84.1
Massachusetts	5	1.3	13	3.5	41	11.0	11	2.9	304	81.3
New Jersey	3	2.1	6	4.1	31	21.2	6	4.1	100	68.5
New Mexico	--	--	1	2.8	10	27.8	--	--	25	69.4
Ohio	1	1.2	1	1.2	13	15.9	--	--	67	81.7
Rhode Island	--	--	--	--	--	--	--	--	21	100.0
All States	20	1.6	34	2.7	216	17.4	36	2.9	937	75.4

Appendix J: PARCC Math Audio Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	5	3.0	7	4.2	48	28.7	4	2.4	103	61.7
Colorado	--	--	1	10.0	1	10.0	--	--	8	80.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.8	4	3.1	12	9.3	1	0.8	111	86.0
Maryland	2	1.5	--	--	14	10.6	4	3.0	112	84.8
Massachusetts	7	1.9	12	3.2	47	12.5	11	2.9	298	79.5
New Jersey	3	2.1	5	3.4	30	20.5	6	4.1	102	69.9
New Mexico	--	--	1	2.7	14	37.8	--	--	22	59.5
Ohio	1	1.2	1	1.2	13	16.0	--	--	66	81.5
Rhode Island	--	--	--	--	--	--	--	--	21	100.0
All States	22	1.8	32	2.6	231	18.6	37	2.7	925	74.4

(continued)

Table H-29. TA Survey (EOY): Q4. Please indicate your level of agreement with the following statement: "This particular appendix/guidance effectively informed me of how to administer accessibility features and accommodations on the PARCC assessments."

Assistive Technology Guidelines

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	4	2.4	9	5.4	42	25.3	6	3.6	105	63.3
Colorado	--	--	--	--	1	10.0	--	--	9	10.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.8	4	3.1	13	10.1	1	0.8	110	85.3
Maryland	4	3.1	1	0.8	19	14.5	5	3.8	102	77.9
Massachusetts	4	1.1	21	5.6	45	12.1	12	3.2	290	78.0
New Jersey	3	2.1	5	3.4	20	13.7	6	4.1	112	76.7
New Mexico	--	--	1	2.8	10	27.8	--	--	25	69.4
Ohio	2	2.4	1	1.2	13	15.9	--	--	66	80.5
Rhode Island	--	--	--	--	--	--	--	--	21	100.0
All States	22	1.8	46	3.7	222	17.9	42	3.4	909	73.2

PARCC Technical Assistance Bulletin – PARCC Assessments and Students with Visual Impairment, Including Blindness

	Strongly Disagree		Disagree		Agree		Strongly Agree		Did Not Administer	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	4	2.4	9	5.4	43	25.7	7	4.2	104	62.3
Colorado	--	--	--	--	1	10.0	--	--	9	90.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	1	0.8	3	2.3	12	9.2	1	0.8	113	86.9
Maryland	2	1.5	4	3.1	18	13.8	4	3.1	102	78.5
Massachusetts	6	1.6	16	4.2	42	11.1	6	1.6	307	81.4
New Jersey	3	2.1	5	3.5	17	11.8	2	1.4	117	81.3
New Mexico	--	--	2	5.6	9	25.0	--	--	25	69.4
Ohio	2	2.5	1	1.2	12	14.8	--	--	66	81.5
Rhode Island	--	--	--	--	--	--	--	--	20	100.0
All States	21	1.7	41	3.3	202	16.3	30	2.4	947	76.3

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-30. TA Survey (PBA): Q5. The process for identifying accessibility features and accommodations in advance (via the Personal Needs Profile and associated trainings) was clear and easy to follow.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	2	2.5	5	6.2	38	46.9	5	6.2	31	38.3
Colorado	--	--	1	8.3	2	16.7	1	8.3	8	66.7
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	17	4.3	33	8.3	84	21.1	12	3.0	253	63.4
Maryland	2	8.3	2	8.3	6	25.0	2	8.3	12	50.0
Massachusetts	31	5.4	70	12.1	142	24.6	14	2.4	320	55.5
Mississippi	1	2.9	3	8.6	7	20.0	4	11.4	20	57.1
New Jersey	--	--	7	28.0	8	32.0	1	4.0	9	36.0
New Mexico	7	14.6	3	6.3	11	22.9	3	6.3	24	50.0
Ohio	23	11.2	30	14.6	45	21.8	2	1.0	106	51.5
Rhode Island	7	5.6	9	7.3	30	24.2	2	1.6	76	61.3
All States	114	5.5	192	9.2	580	27.8	71	3.4	1,129	54.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-31. TA Survey (EOY): Q5. The process for identifying accessibility features and accommodations in advance (via the Personal Needs Profile and associated trainings) was clear and easy to follow.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	9	5.0	11	6.1	70	38.7	10	5.5	81	44.8
Colorado	1	10.0	--	--	1	10.0	--	--	8	80.0
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	7	5.2	17	12.6	27	20.0	1	0.7	83	61.5
Maryland	3	2.1	8	5.7	39	27.9	5	3.6	85	60.7
Massachusetts	26	6.6	40	10.2	118	29.9	10	2.5	200	50.8
New Jersey	10	6.5	8	5.2	39	25.5	1	0.7	95	62.1
New Mexico	3	7.5	6	15.0	16	40.0	1	2.5	14	35.0
Ohio	3	3.4	10	11.4	21	23.9	--	--	54	61.4
Rhode Island	--	--	--	--	8	32.0	--	--	17	68.0
All States	72	5.4	107	8.1	408	30.8	40	3.0	698	52.7

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-32. TA Survey (PBA): Q6. Were all the accommodations/accessibility features that were pre-identified in the PNP made available to students during a practice session with sample items, tutorial(s), or practice test(s)?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	21	26.3	9	11.3	30	37.5	20	25.0
Colorado	1	8.3	--	--	5	41.7	6	50.0
D.C.	2	100.0	--	--	--	--	--	--
Illinois	74	18.7	25	6.3	154	39.0	142	35.9
Maryland	6	28.6	--	--	8	38.1	7	33.3
Massachusetts	172	30.0	33	5.7	199	34.7	170	29.6
Mississippi	8	22.9	--	--	12	34.3	15	42.9
New Jersey	7	29.2	3	12.5	10	41.7	4	16.7
New Mexico	13	26.0	7	14.0	15	30.0	15	30.0
Ohio	46	22.4	12	5.9	78	38.0	69	33.7
Rhode Island	26	21.1	4	3.3	37	30.1	56	45.5
All States	567	27.4	108	5.2	716	34.6	679	32.8

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-33. TA Survey (EOY): Q6. Were all the accommodations/accessibility features that were pre-identified in the PNP made available to students during a practice session with sample items, tutorial(s), or practice test(s)?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	53	29.6	4	2.2	58	32.4	64	35.8
Colorado	2	18.2	1	9.1	5	45.5	3	27.3
D.C.	2	100.0	--	--	--	--	--	--
Illinois	17	12.7	11	8.2	45	33.6	61	45.5
Maryland	26	19.0	5	3.6	43	31.4	63	46.0
Massachusetts	120	30.8	34	8.7	126	32.3	110	28.2
New Jersey	28	18.3	20	13.1	47	30.7	58	37.9
New Mexico	12	30.0	4	10.0	10	25.0	14	35.0
Ohio	17	19.1	5	5.6	29	32.6	38	42.7
Rhode Island	2	8.0	4	16.8	7	28.0	14	48.0
All States	339	25.8	90	6.8	430	32.7	455	34.6

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-34. TA Survey (PBA): Q7. During administration, were changes made to a student's PNP or to the availability of accommodations or accessibility features?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	3	3.8	28	35.4	31	39.2	17	21.5
Colorado	--	--	2	16.7	5	41.7	5	41.7
D.C.	--	--	1	50.0	1	50.0	--	--
Illinois	10	2.5	117	29.4	125	31.4	146	36.7
Maryland	--	--	10	45.5	5	22.7	7	31.8
Massachusetts	30	5.2	230	39.9	169	29.3	147	25.5
Mississippi	--	--	9	25.0	11	30.6	16	44.4
New Jersey	3	13.6	10	45.5	6	27.3	3	13.6
New Mexico	3	5.9	19	37.3	12	23.5	17	33.3
Ohio	4	1.9	67	32.4	70	33.8	66	31.9
Rhode Island	2	1.6	40	32.3	31	25.0	51	41.1
All States	66	3.2	765	36.8	595	28.6	655	31.5

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-35. TA Survey (EOY): Q7. During administration, were changes made to a student's PNP or to the availability of accommodations or accessibility features?

	Yes		No		Not Sure/Don't Know		Not Applicable	
State	n	%	n	%	n	%	n	%
Arkansas	5	2.8	55	31.1	58	32.8	59	33.3
Colorado	1	9.1	2	18.2	6	54.5	2	18.2
D.C.	1	50.0	1	50.0	--	--	--	--
Illinois	4	2.9	29	21.0	44	31.9	61	44.2
Maryland	1	0.7	38	27.3	43	30.9	57	41.0
Massachusetts	23	5.9	157	40.2	116	29.7	95	24.3
New Jersey	8	5.3	55	36.4	34	22.5	54	35.8
New Mexico	--	--	21	52.5	6	15.0	13	32.5
Ohio	2	2.3	29	33.3	20	23.0	36	41.4
Rhode Island	--	--	9	39.1	6	26.1	8	34.8
All States	50	3.8	473	35.9	371	28.2	422	32.1

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Sample Items/Tutorials

Table H-36. TA Survey (PBA): Q1. How did students in your session(s) practice with PARCC content prior to administration? Select all that apply.[a]										
	Sample Items		Tutorial		Practice Test		Did Not Practice		Not sure/Don't Know	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	44	49.4	16	18.0	34	38.2	5	5.6	24	27.0
Colorado	7	38.9	3	16.7	7	38.9	--	--	3	16.7
D.C.	--	--	--	--	1	50.0	1	50.0	--	--
Illinois	278	63.2	59	13.4	190	43.2	34	7.7	56	12.7
Maryland	16	61.5	5	19.2	9	34.6	3	11.5	106	16.0
Massachusetts	419	63.3	68	10.3	303	45.8	17	2.6	2	7.7
Mississippi	17	42.5	9	22.5	22	55.0	--	--	13	32.5
New Jersey	17	54.8	9	29.0	8	25.8	--	--	7	22.6
New Mexico	26	45.6	18	31.6	29	50.9	8	14.0	8	14.0
Ohio	138	57.7	30	12.6	112	46.9	11	4.6	40	16.7
Rhode Island	84	61.8	10	7.4	50	36.8	10	7.4	21	15.4
All States[b]	1,401	60.0	296	12.7	1,083	46.4	99	4.2	435	18.6

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-37. TA Survey (EOY): Q1. How did students in your session(s) practice with PARCC content prior to administration? Select all that apply.[a]

	Sample Items		Tutorial		Practice Test		Did Not Practice		Not sure/Don't Know	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	103	54.5	47	24.9	70	37.0	6	3.2	61	32.3
Colorado	10	90.9	2	18.2	6	54.5	--	--	1	9.1
D.C.	1	50.0	--	--	1	50.0	--	--	1	50.0
Illinois	81	50.6	22	13.8	56	35.0	23	14.4	24	15.0
Maryland	81	52.6	10	6.5	31	20.1	25	16.2	31	20.1
Massachusetts	273	60.8	36	8.0	184	41.0	17	3.8	73	16.3
New Jersey	106	61.3	59	34.1	89	51.4	4	2.3	42	24.3
New Mexico	30	68.2	11	25.0	22	50.0	2	4.5	3	6.8
Ohio	53	56.4	12	12.8	44	46.8	10	10.6	21	22.3
Rhode Island	17	68.0	1	4.0	9	36.0	5	20.0	2	8.0
All States[b]	852	58.0	217	14.8	584	39.8	97	6.6	308	21.0

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-38. TA Survey (PBA): Q2. How did you, as a Test Administrator, work with PARCC content prior to administration? Select all that apply.[a]								
	Sample Items		Tutorial		Practice Test		Did Not Practice	
State	n	%	n	%	n	%	n	%
Arkansas	50	56.2	30	33.7	29	32.6	23	25.8
Colorado	8	44.4	3	16.7	7	38.9	2	11.1
D.C.	--	--	--	--	--	--	2	100.0
Illinois	329	74.8	180	40.9	233	53.0	40	9.1
Maryland	18	69.2	14	53.8	14	53.8	1	3.8
Massachusetts	449	67.8	191	28.9	273	41.2	92	13.9
Mississippi	19	47.5	16	40.0	15	37.5	6	15.0
New Jersey	17	54.8	19	61.3	13	41.9	--	--
New Mexico	37	64.9	21	36.8	31	54.4	9	15.8
Ohio	158	66.1	91	38.1	111	46.4	34	14.2
Rhode Island	97	71.3	25	18.4	62	45.6	17	12.5
All States[b]	1,585	67.9	744	31.8	1,040	44.5	354	15.2

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-39. TA Survey (EOY): Q2. How did you, as a Test Administrator, work with PARCC content prior to administration? Select all that apply.[a]								
	Sample Items		Tutorial		Practice Test		Did Not Practice	
State	n	%	n	%	n	%	n	%
Arkansas	118	62.4	77	40.7	77	40.7	42	22.2
Colorado	8	72.7	5	45.5	10	90.9	--	--
D.C.	2	100.0	1	50.0	1	50.0	--	--
Illinois	101	63.1	59	36.9	70	43.8	23	14.4
Maryland	105	68.2	37	24.0	46	29.9	26	16.9
Massachusetts	306	68.2	129	28.7	199	44.3	65	14.5
New Jersey	119	68.8	94	54.3	95	54.9	25	14.5
New Mexico	28	63.6	14	31.8	23	52.3	4	9.1
Ohio	63	67.0	29	30.9	40	42.6	17	18.1
Rhode Island	18	72.0	12	48.0	18	72.0	2	8.0
All States[b]	976	66.4	503	34.2	646	44.0	247	16.8

[a]Percentages reported for "select all that apply" items should be interpreted with caution, as it is not possible to differentiate "missing" (i.e., skipped) vs. "not selected" responses.

[b]N-counts include individuals with missing data for state location who selected a grade level.

Table H-40. TA Survey (PBA): Q3. Completion of the PARCC paper-based student tutorials helped better prepare me for administering the assessment.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	4	5.1	6	7.6	37	46.8	8	10.1	24	30.4
Colorado	--	--	1	8.3	3	25.0	--	--	8	66.7
D.C.	--	--	--	--	1	50.0	--	--	1	50.0
Illinois	21	5.3	55	13.9	182	42.8	33	8.3	106	26.7
Maryland	1	5.0	2	10.0	9	45.0	3	15.0	5	25.0
Massachusetts	33	5.7	77	13.2	251	43.1	24	4.1	197	33.8
Mississippi	--	--	2	5.7	15	42.9	6	17.1	12	34.3
New Jersey	1	4.3	2	8.7	10	43.5	2	8.7	8	34.8
New Mexico	4	7.8	6	11.8	20	39.2	4	7.8	17	33.3
Ohio	18	8.7	33	15.9	86	41.5	5	2.4	65	31.4
Rhode Island	5	3.9	17	13.4	56	44.1	6	4.7	43	33.9
All States	107	5.1	253	12.1	904	43.3	128	6.1	698	33.4

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Table H-41. TA Survey (EOY): Q3. Completion of the PARCC paper-based student tutorials helped better prepare me for administering the assessment.

	Strongly Disagree		Disagree		Agree		Strongly Agree		Not Applicable	
State	n	%	n	%	n	%	n	%	n	%
Arkansas	7	3.9	11	6.1	77	43.0	14	7.8	70	39.1
Colorado	1	9.1	--	--	6	54.5	2	18.2	2	18.2
D.C.	--	--	--	--	2	100.0	--	--	--	--
Illinois	10	7.5	21	15.7	58	43.3	6	4.5	39	29.1
Maryland	3	2.1	21	14.9	55	39.0	5	3.5	57	40.4
Massachusetts	18	4.6	54	13.7	162	41.0	20	5.1	141	35.7
New Jersey	8	5.3	8	5.3	46	30.3	5	3.3	85	55.9
New Mexico	2	5.3	4	10.5	15	39.5	1	2.6	16	42.1
Ohio	3	3.6	16	19.0	31	36.9	5	6.0	29	34.5
Rhode Island	--	--	5	20.0	13	52.0	1	4.0	6	24.0
All States	59	4.5	153	11.6	528	40.1	73	5.5	505	38.3

Note. Percentages are based on the total number of valid responses. N-counts for "All States" include individuals with missing data for state location who selected a response.

Appendix I – Item-level Results from Student Survey: CBT EOY Mathematics Assessment

MATH Computer-Based Administration:

Table I-1. Student Survey Response Rate MATH CBT		
	End of Year Assessment	
State	n	%
Arkansas	256,924	7.21
Colorado	354,923	9.96
District of Columbia	30,933	0.87
Illinois	703,517	19.74
Maryland	374,667	10.51
Massachusetts	127,621	3.58
Mississippi	210,443	5.91
New Jersey	732,588	20.56
New Mexico	187,726	5.27
Ohio	525,142	14.74
Rhode Island	59,139	1.66
All States	3,563,623	100.0

Table I-2. Student Survey MATH CBT: Q1. Did you understand all of the directions read by the person who gave you the test?				
	Yes		No	
State	n	%	n	%
Arkansas	214,296	83.44	42,525	16.56
Colorado	289,316	81.60	65,245	18.40
District of Columbia	25,947	84.01	4,940	15.99
Illinois	563,374	80.10	139,684	19.90
Maryland	306,155	81.79	68,166	18.21
Massachusetts	104,543	81.96	23,007	18.04
Mississippi	178,441	84.83	31,898	15.17
New Jersey	587,121	80.20	144,951	19.80
New Mexico	155,241	82.76	32,342	17.24
Ohio	419,354	79.90	105,469	20.10
Rhode Island	48,122	81.43	10,972	18.57
All States	2,891,910	81.21	669,199	18.79

Note. Percentages are based on the number of valid responses. Missing = 2,514.

Table I-3. Student Survey MATH CBT: Q2. How often was it hard to understand the directions for the questions on this test?

	Almost Always		Most of the Time		Some of the Time		Almost Never	
State	n	%	n	%	n	%	n	%
Arkansas	27,173	10.58	47,950	18.68	117,639	45.82	63,964	24.92
Colorado	35,980	10.15	69,775	19.69	164,435	46.40	84,202	23.76
District of Columbia	3,443	11.16	6,689	21.68	12,673	41.08	8,043	26.07
Illinois	68,797	9.79	137,435	19.55	329,048	46.82	167,560	23.84
Maryland	41,874	11.20	75,860	20.28	166,791	44.59	89,511	23.93
Massachusetts	10,757	8.44	20,999	16.47	61,574	48.29	34,172	26.80
Mississippi	18,174	8.64	38,546	18.33	99,985	47.55	53,575	25.48
New Jersey	92,280	12.61	147,859	20.21	319,826	43.71	171,761	23.47
New Mexico	24,991	13.33	42,165	22.48	79,203	42.23	41,172	21.95
Ohio	55,232	10.53	96,065	18.31	249,176	47.50	124,160	23.67
Rhode Island	7,380	12.49	11,777	19.94	26,068	44.13	13,845	23.44
All States	386,081	10.85	695,120	19.53	11626,418	45.69	851,965	23.93

Note. Percentages are based on the number of valid responses. Missing = 4,039.

Table I-4. Student Survey MATH CBT: Q3. How many questions asked you about things you have not learned in school this year?

	All of Them		Most of Them		Few of Them		None of Them	
State	n	%	n	%	n	%	n	%
Arkansas	14,265	5.56	56,255	21.91	126,718	49.39	59,470	23.17
Colorado	22,213	6.27	79,904	22.57	180,434	50.96	71,486	20.19
District of Columbia	2,669	8.65	7,259	23.54	13,403	43.46	7,507	24.34
Illinois	37,314	5.31	162,929	23.19	372,576	53.03	129,768	18.47
Maryland	25,620	6.85	98,201	26.26	175,206	46.85	74,930	20.04
Massachusetts	5,568	4.37	20,831	16.34	64,420	50.54	36,642	28.75
Mississippi	10,352	4.92	30,197	14.36	93,125	44.29	76,576	36.42
New Jersey	56,741	7.76	191,084	26.13	330,888	45.24	152,665	20.87
New Mexico	14,945	7.97	49,458	26.38	84,606	45.12	38,497	20.53
Ohio	27,630	5.27	105,451	20.10	253,596	48.35	137,833	26.28
Rhode Island	4,119	6.98	14,972	25.36	29,850	50.57	10,091	17.09
All States	221,436	6.22	816,541	22.95	1,724,822	48.47	795,465	22.36

Note. Percentages are based on the number of valid responses. Missing = 5,359.

Table I-5. Student Survey MATH CBT: Q4. How difficult was this test?						
	Easier than School Work		Same as School Work		Harder than School Work	
State	n	%	n	%	n	%
Arkansas	19,594	7.63	103,105	40.16	134,009	52.20
Colorado	34,437	9.73	159,268	45.01	160,116	45.25
District of Columbia	3,311	10.74	14,689	47.63	12,838	41.63
Illinois	62,282	8.87	287,263	40.89	352,958	50.24
Maryland	34,112	9.12	149,110	39.87	190,734	51.00
Massachusetts	10,258	8.05	56,938	44.68	60,237	47.27
Mississippi	19,715	9.38	97,591	46.42	92,944	44.21
New Jersey	58,329	7.98	268,480	36.71	404,446	55.31
New Mexico	14,477	7.72	75,437	40.23	97,596	52.05
Ohio	39,816	7.59	213,318	40.67	271,346	51.74
Rhode Island	4,095	6.94	20,825	35.27	34,117	57.79
All States	300,426	8.44	1,446,024	40.64	1,811,341	50.91

Note. Percentages are based on the number of valid responses. Missing = 5,832.

Table I-6. Student Survey MATH CBT: Q5. Did you have enough time to finish this test?								
	Very Early		On Time		Rush		Did Not Finish	
State	n	%	n	%	n	%	n	%
Arkansas	116,089	45.23	126,778	49.39	10,719	4.18	3,098	1.21
Colorado	158,500	44.82	173,644	49.10	16,413	4.64	5,119	1.45
District of Columbia	10,487	34.04	17,992	58.39	1,621	5.26	711	2.31
Illinois	308,879	43.98	357,104	50.84	28,378	4.04	7,988	1.14
Maryland	184,021	49.22	165,931	44.38	18,163	4.86	5,758	1.54
Massachusetts	52,978	41.61	64,462	50.63	7,657	6.01	2,235	1.76
Mississippi	73,475	34.95	125,687	59.78	7,949	3.78	3,126	1.49
New Jersey	363,385	49.72	314,706	43.06	39,832	5.45	12,926	1.77
New Mexico	62,291	33.22	108,569	57.91	13,657	7.28	2,972	1.59
Ohio	210,315	40.12	280,884	53.58	26,769	5.11	6,307	1.20
Rhode Island	25,241	42.76	30,141	51.06	2,763	4.68	887	1.50
All States	1,565,661	44.02	1,765,898	49.65	173,921	4.89	51,127	1.44

Note. Percentages are based on the number of valid responses. Missing = 7,016.

Table I-7. Student Survey MATH CBT: Q6. How often do you use a computer or tablet at home?

	Every Day		A Few Times a Week		A Couple Times A Month or Less		Do Not Have at Home	
State	n	%	n	%	n	%	n	%
Arkansas	119,412	46.54	73,205	28.53	35,595	13.87	28,385	11.06
Colorado	171,888	48.64	111,327	31.50	43,983	12.45	26,211	7.42
District of Columbia	13,817	44.87	10,437	33.90	4,159	13.51	2,377	7.72
Illinois	377,890	53.82	209,527	29.84	74,811	10.65	39,930	5.69
Maryland	194,124	51.96	114,973	30.77	44,282	11.85	20,258	5.42
Massachusetts	68,934	54.13	40,385	31.71	12,800	10.05	5,232	4.11
Mississippi	92,724	44.12	62,979	29.97	31,695	15.08	22,763	10.83
New Jersey	407,502	55.76	215,132	29.44	73,234	10.02	34,891	4.77
New Mexico	77,188	41.18	59,294	31.63	29,403	15.69	21,550	11.50
Ohio	284,532	54.29	149,227	28.47	56,252	10.73	34,120	6.51
Rhode Island	31,854	54.00	18,175	30.81	5,736	9.72	3,220	5.46
All States	1,839,865	51.75	1,064,661	29.94	411,950	11.59	238,937	6.72

Note. Percentages are based on the number of valid responses. Missing = 8,210.

Table I-8. Student Survey MATH CBT: Q7. How often do you use a computer or tablet in school?

	Every Day		A Few Times a Week		A Couple Times A Month or Less		Do Not Use at School	
State	n	%	n	%	n	%	n	%
Arkansas	78,064	30.42	108,355	42.22	63,421	24.71	6,775	2.64
Colorado	98,607	27.91	149,658	42.36	93,652	26.51	11,365	3.22
District of Columbia	8,002	25.99	13,621	44.25	8,073	26.23	1,087	3.53
Illinois	199,809	28.46	296,956	42.30	186,274	26.53	18,987	2.70
Maryland	68,632	18.37	143,067	38.29	147,472	39.47	14,422	3.86
Massachusetts	24,396	19.16	54,877	43.10	44,216	34.73	3,825	3.00
Mississippi	59,915	28.51	81,307	38.69	59,400	28.27	9,513	4.53
New Jersey	159,080	21.77	295,916	40.50	247,658	33.90	27,963	3.83
New Mexico	39,192	20.91	69,083	36.86	69,656	37.19	9,494	5.07
Ohio	141,402	26.98	227,770	43.46	140,837	26.87	14,074	2.69
Rhode Island	13,275	22.51	25,211	42.76	18,219	30.90	2,261	3.83
All States	890,374	25.05	1,465,821	41.23	1,078,878	30.35	119,766	3.37

Note. Percentages are based on the number of valid responses. Missing = 8,784.

Table I-9. Student Survey MATH CBT: Q8. When writing a story or essay, how often do you use a computer or tablet?

	All of the Time		Most of the Time		Some of the Time		Never	
State	n	%	n	%	n	%	n	%
Arkansas	29,977	11.68	74,460	29.02	114,129	44.48	38,015	14.82
Colorado	58,779	16.64	120,292	34.06	133,306	37.75	40,781	11.55
District of Columbia	5,331	17.33	9,526	30.96	11,593	37.68	4,319	14.04
Illinois	124,272	17.70	237,910	33.89	256,229	36.50	83,544	11.90
Maryland	56,304	15.07	112,444	30.10	152,039	40.70	52,740	14.12
Massachusetts	19,898	15.62	43,533	34.18	49,065	38.53	14,858	11.67
Mississippi	22,583	10.75	48,546	23.11	92,367	43.96	46,604	22.18
New Jersey	123,236	16.87	249,535	34.16	275,032	37.65	82,726	11.32
New Mexico	24,819	13.25	53,235	28.41	76,901	41.04	32,423	17.30
Ohio	70,905	13.53	163,136	31.13	214,134	40.87	75,790	14.46
Rhode Island	10,489	17.79	19,322	32.77	21,673	36.75	7,487	12.70
All States	546,593	15.38	1,131,939	31.85	1,396,468	39.29	479,287	13.48

Note. Percentages are based on the number of valid responses. Missing = 9,336.

Table I-10. Student Survey MATH CBT: Q9. Would you rather take this test on paper OR on a computer or tablet?

	On Paper		On a Computer or Tablet	
State	n	%	n	%
Arkansas	103,194	40.22	153,371	59.78
Colorado	113,945	32.27	239,100	67.73
District of Columbia	6,581	21.39	24,183	78.61
Illinois	217,155	30.94	484,699	69.06
Maryland	88,856	23.79	284,614	76.21
Massachusetts	45,748	35.95	81,523	64.05
Mississippi	66,289	31.55	143,830	68.45
New Jersey	265,461	36.36	464,603	63.64
New Mexico	59,043	31.51	128,333	68.49
Ohio	198,339	37.85	325,628	62.15
Rhode Island	16,165	27.43	42,766	72.57
All States	1,180,776	33.23	2,372,650	66.77

Note. Percentages are based on the number of valid responses. Missing = 10,197.

Table I-11. Student Survey MATH CBT: Q10. What did you use to take this test?

	Desktop Computer		Laptop Computer		Tablet with a Keyboard		Tablet without Keyboard	
State	n	%	n	%	n	%	n	%
Arkansas	93,992	36.63	148,075	57.71	12,613	4.92	1,887	0.74
Colorado	126,328	35.79	206,228	58.43	16,526	4.68	3,895	1.10
District of Columbia	6,754	21.96	22,816	74.18	882	2.87	304	0.99
Illinois	271,761	38.72	374,078	53.30	46,750	6.66	9,290	1.32
Maryland	155,880	41.73	193,714	51.86	20,652	5.53	3,260	0.87
Massachusetts	38,310	30.09	70,003	54.98	15,310	12.02	3,702	2.91
Mississippi	138,518	65.93	61,315	29.18	8,057	3.83	2,208	1.05
New Jersey	221,151	30.28	461,611	63.20	40,877	5.60	6,738	0.92
New Mexico	117,656	62.78	60,313	32.18	7,183	3.83	2,258	1.20
Ohio	203,328	38.81	289,516	55.26	27,078	5.17	4,019	0.77
Rhode Island	16,552	28.08	40,593	68.85	1,365	2.32	445	0.75
All States	1,390,230	39.12	1,928,262	54.26	197,293	5.55	38,006	1.07

Note. Percentages are based on the number of valid responses. Missing = 9,832.

Table I-12. Student Survey MATH CBT: Q11. Was it easy to type your answers?

	Yes		No		Did Not Type Answers	
State	n	%	n	%	n	%
Arkansas	205,919	80.28	36,271	14.14	14,318	5.58
Colorado	268,179	75.99	51,471	14.59	33,243	9.42
District of Columbia	23,366	75.99	3,885	12.63	3,499	11.38
Illinois	550,197	78.41	92,170	13.13	59,366	8.46
Maryland	289,391	77.50	51,014	13.66	32,991	8.84
Massachusetts	100,034	78.61	18,126	14.24	9,099	7.15
Mississippi	172,332	82.04	22,530	10.73	15,191	7.23
New Jersey	549,217	75.22	122,330	16.75	58,584	8.02
New Mexico	142,742	76.18	28,284	15.09	16,356	8.73
Ohio	406,097	77.52	68,588	13.09	49,194	9.39
Rhode Island	46,856	79.47	8,033	13.63	4,068	6.90
All States	2,754,330	77.52	502,702	14.15	295,509	8.33

Note. Percentages are based on the number of valid responses. Missing = 10,682.

Table I-13. Student Survey MATH CBT: Q12. How many times did you practice on a computer or tablet to get ready for this test?

	Never		Once		More than Once	
State	n	%	n	%	n	%
Arkansas	59,904	23.35	72,859	28.40	123,747	48.24
Colorado	122,706	34.78	110,892	31.43	119,223	33.79
District of Columbia	9,695	31.54	8,512	27.69	12,529	40.76
Illinois	226,355	32.26	225,252	32.10	250,070	35.64
Maryland	141,749	37.97	124,038	33.22	107,542	28.81
Massachusetts	31,876	25.04	36,789	28.90	58,618	46.05
Mississippi	61,061	29.08	53,928	25.68	95,003	45.24
New Jersey	186,148	25.50	215,458	29.51	328,525	45.00
New Mexico	57,196	30.52	57,642	30.76	72,537	38.71
Ohio	133,234	25.44	150,672	28.77	239,883	45.80
Rhode Island	17,981	30.51	18,897	32.07	22,055	37.42
All States	1,047,905	29.50	1,074,939	30.26	1,429,732	40.24

Note. Percentages are based on the number of valid responses. Missing = 11,047.

Table I-14. Student Survey MATH CBT: Q13. Was it easy to use the highlighter?

	Yes		No		Did Not Use Highlighter	
State	n	%	n	%	n	%
Arkansas	104,951	40.92	11,624	4.53	139,915	54.55
Colorado	150,745	42.74	20,663	5.86	181,307	51.40
District of Columbia	13,996	45.56	1,939	6.31	14,787	48.13
Illinois	295,750	42.16	33,925	4.84	371,844	53.01
Maryland	155,864	41.76	20,610	5.52	196,773	52.72
Massachusetts	52,321	41.11	8,508	6.68	66,450	52.21
Mississippi	100,429	47.82	6,935	3.30	102,631	48.87
New Jersey	304,261	41.69	48,891	6.70	376,852	51.62
New Mexico	91,640	48.92	11,070	5.91	84,632	45.18
Ohio	217,817	41.59	26,917	5.14	279,027	53.27
Rhode Island	27,889	47.35	3,615	6.14	27,396	46.51
All States	1,515,663	42.67	194,697	5.48	1,841,614	51.85

Note. Percentages are based on the number of valid responses. Missing = 11,649.

Table I-15. Student Survey MATH CBT: Q14. Was it easy to make pictures or words bigger or smaller?

	Yes		No		Did Not Change Size	
State	n	%	n	%	n	%
Arkansas	53,797	20.98	18,244	7.11	184,383	71.91
Colorado	74,239	21.06	33,531	9.51	244,708	69.43
District of Columbia	8,477	27.62	2,727	8.89	19,487	63.49
Illinois	153,181	21.84	52,959	7.55	495,211	70.61
Maryland	79,914	21.42	30,829	8.26	262,409	70.32
Massachusetts	28,206	22.17	11,325	8.90	87,715	68.93
Mississippi	47,266	22.51	11,597	5.52	151,085	71.96
New Jersey	145,869	19.99	72,818	9.98	511,017	70.03
New Mexico	49,272	26.30	19,110	10.20	118,931	63.49
Ohio	103,547	19.77	42,118	8.04	377,962	72.18
Rhode Island	14,679	24.92	5,664	9.62	38,550	65.46
All States	758,447	21.36	300,922	8.47	2,491,458	70.17

Note. Percentages are based on the number of valid responses. Missing = 12,796.

Table I-16. Student Survey MATH CBT: Q15. Was it easy to enter math symbols and numbers for your answers?

	Yes		No		Did Not Enter Math Symbols or Numbers	
State	n	%	n	%	n	%
Arkansas	181,537	70.81	45,455	17.73	29,389	11.46
Colorado	242,017	68.69	71,463	20.28	38,874	11.03
District of Columbia	21,744	70.86	4,867	15.86	4,074	13.28
Illinois	493,623	70.40	123,692	17.64	83,811	11.95
Maryland	265,357	71.15	66,430	17.81	41,188	11.04
Massachusetts	88,555	69.62	24,792	19.49	13,845	10.89
Mississippi	161,210	76.81	25,164	11.99	23,514	11.20
New Jersey	466,231	63.90	162,319	22.25	101,036	13.85
New Mexico	128,295	68.51	39,037	20.84	19,944	10.65
Ohio	369,220	70.53	93,616	17.88	60,650	11.59
Rhode Island	41,710	70.87	10,537	17.90	6,606	11.22
All States	2,459,499	69.29	667,372	18.80	422,931	11.91

Note. Percentages are based on the number of valid responses. Missing = 13,821.

Table I-17. Student Survey MATH CBT: Q16. Was it easy to use the calculator?

	Yes		No		Did Not Use Calculator	
State	n	%	n	%	n	%
Arkansas	126,580	49.37	23,448	9.15	106,374	41.49
Colorado	176,942	50.21	37,005	10.50	138,450	39.29
District of Columbia	14,758	48.09	2,237	7.29	13,693	44.62
Illinois	348,908	49.75	61,565	8.78	290,783	41.47
Maryland	182,750	48.98	33,769	9.05	156,555	41.96
Massachusetts	53,073	41.72	11,558	9.09	62,585	49.20
Mississippi	105,624	50.32	10,532	5.02	93,750	44.66
New Jersey	315,810	43.28	86,833	11.90	327,027	44.82
New Mexico	99,545	53.15	17,784	9.49	69,976	37.36
Ohio	228,270	43.60	52,093	9.95	243,197	46.45
Rhode Island	28,393	48.22	5,290	8.98	25,204	42.80
All States	1,680,653	47.34	342,114	9.64	1,527,594	43.03

Note. Percentages are based on the number of valid responses. Missing = 13,262.

Table I-18. Student Survey MATH CBT: Q17. Did you have problems logging into the test?				
	Yes		No	
State	n	%	n	%
Arkansas	56,837	22.17	199,571	77.83
Colorado	82,205	23.33	270,216	76.67
District of Columbia	10,357	33.76	20,324	66.24
Illinois	186,434	26.59	514,800	73.41
Maryland	89,034	23.87	284,023	76.13
Massachusetts	35,396	27.82	91,824	72.18
Mississippi	43,562	20.75	166,358	79.25
New Jersey	194,869	26.71	534,828	73.29
New Mexico	49,534	26.44	137,780	73.56
Ohio	117,094	22.36	406,506	77.64
Rhode Island	15,769	26.78	43,122	73.22
All States	881,091	24.82	2,669,352	75.18

Note. Percentages are based on the number of valid responses. Missing = 13,180.

Table I-19. Student Survey MATH CBT: Q18. Did the computer (or tablet) stop working?				
	Yes		No	
State	n	%	n	%
Arkansas	24,698	9.63	231,650	90.37
Colorado	42,427	12.04	309,823	87.96
District of Columbia	3,829	12.49	26,828	87.51
Illinois	82,791	11.81	618,205	88.19
Maryland	41,265	11.07	331,622	88.93
Massachusetts	15,784	12.41	111,386	87.59
Mississippi	15,682	7.47	194,157	92.53
New Jersey	97,754	13.40	631,655	86.60
New Mexico	23,789	12.71	163,413	87.29
Ohio	47,748	9.12	475,676	90.88
Rhode Island	7,523	12.78	51,330	87.22
All States	403,290	11.36	3,145,745	88.64

Note. Percentages are based on the number of valid responses. Missing = 14,588.

Table I-20. Student Survey MATH CBT: Q19. Did the computer (or tablet) work slowly?				
	Yes		No	
State	n	%	n	%
Arkansas	56,608	22.08	199,742	77.92
Colorado	79,141	22.47	273,100	77.53
District of Columbia	6,467	21.08	24,212	78.92
Illinois	146,617	20.92	554,371	79.08
Maryland	71,227	19.10	301,642	80.90
Massachusetts	28,783	22.64	98,352	77.36
Mississippi	35,665	17.00	174,169	83.00
New Jersey	167,827	23.01	561,573	76.99
New Mexico	41,273	22.04	145,959	77.96
Ohio	99,265	18.97	424,083	81.03
Rhode Island	11,280	19.17	47,567	80.83
All States	744,153	20.97	2,804,770	79.03

Note. Percentages are based on the number of valid responses. Missing = 14,700.

Table I-21. Student Survey MATH CBT: Q20. Did you have a hard time dragging or moving things on the screen?				
	Yes		No	
State	n	%	n	%
Arkansas	65,566	25.58	190,745	74.42
Colorado	97,243	27.61	254,899	72.39
District of Columbia	7,113	23.20	23,542	76.80
Illinois	162,835	23.23	538,004	76.77
Maryland	89,159	23.92	283,634	76.08
Massachusetts	32,618	25.66	94,508	74.34
Mississippi	34,916	16.64	174,871	83.36
New Jersey	200,799	27.53	528,481	72.47
New Mexico	43,767	23.38	143,412	76.62
Ohio	126,418	24.16	396,923	75.84
Rhode Island	14,309	24.32	44,534	75.68
All States	874,743	24.65	2,673,553	75.35

Note. Percentages are based on the number of valid responses. Missing = 15,327.

Table I-22. Student Survey MATH CBT: Q21. Did you have a hard time making changes to your answers?				
	Yes		No	
State	n	%	n	%
Arkansas	45,205	17.64	211,070	82.36
Colorado	64,075	18.20	288,010	81.80
District of Columbia	5,474	17.85	25,189	82.15
Illinois	121,681	17.36	579,138	82.64
Maryland	64,141	17.21	308,646	82.79
Massachusetts	21,396	16.83	105,730	83.17
Mississippi	32,269	15.38	177,499	84.62
New Jersey	151,115	20.72	578,131	79.28
New Mexico	35,968	19.22	151,205	80.78
Ohio	85,782	16.39	437,510	83.61
Rhode Island	10,039	17.07	48,788	82.93
All States	637,145	17.96	2,910,916	82.04

Note. Percentages are based on the number of valid responses. Missing = 15,562.

Table I-23. Student Survey MATH CBT: Q22. Please click on the sentence that is most true:				
	No Tech Problems During Test		Tech Problems During Test	
State	n	%	n	%
Arkansas	203,327	79.33	52,990	20.67
Colorado	271,236	77.06	80,754	22.94
District of Columbia	24,115	78.68	6,535	21.32
Illinois	543,032	77.48	157,813	22.52
Maryland	191,436	78.43	80,412	21.57
Massachusetts	95,424	75.06	31,701	24.94
Mississippi	177,406	84.56	32,392	15.44
New Jersey	546,107	74.88	183,183	25.12
New Mexico	144,267	77.06	42,954	22.94
Ohio	419,511	80.17	103,745	19.83
Rhode Island	46,126	78.41	12,697	21.59
All States	2,762,987	77.87	785,176	22.13

Note. Percentages are based on the number of valid responses. Missing = 15,460.

Appendix J – Item-level Results from Student Survey: CBT EOY ELA Assessment

ELA Computer-Based Administration:

Table J-1. Student Survey Response Rate ELA CBT

	End of Year Assessment	
State	n	%
Arkansas	266,298	7.60
Colorado	381,752	10.90
District of Columbia	30,799	0.88
Illinois	713,566	20.37
Maryland	335,775	9.58
Massachusetts	127,410	3.64
Mississippi	202,001	5.77
New Jersey	755,599	21.57
New Mexico	188,638	5.38
Ohio	443,902	12.67
Rhode Island	57,734	1.65
All States	3,503,474	100.0

Table J-2. Student Survey ELA CBT: Q1. Did you understand all of the directions read by the person who gave you the test?

	Yes		No	
State	n	%	n	%
Arkansas	235,505	88.47	60,699	11.53
Colorado	333,123	87.33	48,346	12.67
District of Columbia	27,300	88.74	3,463	11.26
Illinois	619,895	86.91	93,331	13.09
Maryland	294,312	87.70	41,279	12.30
Massachusetts	111,612	87.64	15,746	12.36
Mississippi	182,126	90.19	19,812	9.81
New Jersey	650,149	86.09	105,059	13.91
New Mexico	167,474	88.80	21,075	11.20
Ohio	388,320	87.52	55,396	12.48
Rhode Island	50,045	86.72	7,663	13.28
All States	3,059,861	87.38	441,869	12.62

Note. Percentages are based on the number of valid responses. Missing = 1,744.

Table J-3. Student Survey ELA CBT: Q2. How often was it hard to understand the directions for the questions on this test?

	Almost Always		Most of the Time		Some of the Time		Almost Never	
State	n	%	n	%	n	%	n	%
Arkansas	17,638	6.63	36,713	13.80	123,544	46.43	88,205	33.15
Colorado	26,562	6.97	55,205	14.48	181,961	47.73	117,468	30.82
District of Columbia	2,426	7.90	5,381	17.52	13,558	44.14	9,354	30.45
Illinois	47,386	6.65	103,821	14.56	344,534	48.33	217,210	30.47
Maryland	23,610	7.04	49,394	14.73	157,250	46.89	105,098	31.34
Massachusetts	7,009	5.50	16,661	13.09	64,074	50.34	39,536	31.06
Mississippi	10,795	5.35	28,307	14.02	102,422	50.74	60,328	29.89
New Jersey	64,397	8.53	119,100	15.78	353,959	46.90	217,285	28.79
New Mexico	14,899	7.90	32,757	17.38	90,206	47.86	50,621	26.86
Ohio	24,554	5.54	58,303	13.14	232,668	52.42	128,088	28.87
Rhode Island	5,019	8.70	8,878	15.40	25,318	43.91	18,449	31.99
All States	244,295	6.98	514,520	14.70	1,689,494	48.27	1,051,642	30.05

Note. Percentages are based on the number of valid responses. Missing = 3,523.

Table J-4. Student Survey ELA CBT: Q3. How many questions asked you about things you have <u>not</u> learned in school this year?

	All of Them		Most of Them		Few of Them		None of Them	
State	n	%	n	%	n	%	n	%
Arkansas	13,709	5.15	39,826	14.97	127,302	47.85	85,209	32.03
Colorado	20,924	5.50	63,128	16.58	193,185	50.75	103,427	27.17
District of Columbia	2,298	7.49	5,480	17.86	13,508	44.03	9,394	30.62
Illinois	36,237	5.09	121,402	17.04	367,506	51.58	187,404	26.30
Maryland	20,335	6.07	59,163	17.66	161,957	48.34	93,599	27.94
Massachusetts	5,115	4.02	17,192	13.52	63,621	50.01	41,276	32.45
Mississippi	9,313	4.61	20,904	10.36	83,315	41.28	88,278	43.74
New Jersey	56,087	7.44	149,131	19.78	341,236	45.25	207,642	27.54
New Mexico	11,383	6.04	36,166	19.19	93,199	49.46	47,667	25.30
Ohio	15,925	3.59	64,344	14.51	229,705	51.81	133,427	30.09
Rhode Island	4,068	7.06	10,440	18.12	26,891	46.67	16,223	28.15
All States	195,394	5.59	587,176	16.79	1,701,425	48.65	1,013,546	28.98

Note. Percentages are based on the number of valid responses. Missing = 5,933.

Table J-5. Student Survey ELA CBT: Q4. How difficult was this test?						
	Easier than School Work		Same as School Work		Harder than School Work	
State	n	%	n	%	n	%
Arkansas	30,343	11.40	135,698	51.00	100,032	37.60
Colorado	56,248	14.78	209,149	54.97	115,090	30.25
District of Columbia	3,706	12.08	18,134	59.10	8,842	28.82
Illinois	85,200	11.96	362,251	50.84	265,063	37.20
Maryland	44,290	13.21	177,698	53.02	113,182	33.77
Massachusetts	12,818	10.08	66,028	51.91	48,359	38.02
Mississippi	19,728	9.78	113,523	56.25	68,558	33.97
New Jersey	71,599	9.49	342,912	45.47	339,582	45.03
New Mexico	19,640	10.42	96,242	51.07	72,586	38.51
Ohio	39,026	8.80	221,191	49.88	183,199	41.32
Rhode Island	5,778	10.03	26,291	45.63	25,550	44.34
All States	388,376	11.10	1,769,117	50.58	1,340,043	38.31

Note. Percentages are based on the number of valid responses. Missing = 5,938.

Table J-6. Student Survey ELA CBT: Q5. Did you have enough time to finish this test?								
	Very Early		On Time		Rush		Did Not Finish	
State	n	%	n	%	n	%	n	%
Arkansas	128,580	48.34	124,960	46.97	9,351	3.52	3,125	1.17
Colorado	179,952	47.31	179,985	47.32	14,981	3.94	5,436	1.43
District of Columbia	10,121	33.02	17,835	58.19	1,682	5.49	1,009	3.29
Illinois	323,149	45.36	353,462	49.62	26,883	3.77	8,842	1.24
Maryland	172,873	51.59	143,896	42.95	13,547	4.04	4,746	1.42
Massachusetts	52,169	41.03	64,859	51.02	7,730	6.08	2,376	1.87
Mississippi	68,391	33.90	117,670	58.33	10,248	5.08	5,407	2.68
New Jersey	373,390	49.54	327,730	43.48	40,265	5.34	12,367	1.64
New Mexico	63,395	33.65	108,047	57.34	13,689	7.27	3,290	1.75
Ohio	185,342	41.81	232,799	52.52	20,439	4.61	4,681	1.06
Rhode Island	26,214	45.51	28,206	48.96	2,354	4.09	831	1.44
All States	1,583,576	45.29	1,699,449	48.61	161,169	4.61	52,110	1.49

Note. Percentages are based on the number of valid responses. Missing = 7,170.

Table J-7. Student Survey ELA CBT: Q6. How often do you use a computer or tablet at home?

	Every Day		A Few Times a Week		A Couple Times A Month or Less		Do Not Have at Home	
State	n	%	n	%	n	%	n	%
Arkansas	125,415	47.16	74,585	28.05	36,766	13.83	29,164	10.97
Colorado	188,248	49.54	118,097	31.08	46,045	12.12	27,594	7.26
District of Columbia	14,084	45.97	10,232	33.40	3,914	12.78	2,407	7.86
Illinois	389,652	54.72	208,631	29.30	73,420	10.31	40,370	5.67
Maryland	176,399	52.67	102,395	30.58	38,435	11.48	17,662	5.27
Massachusetts	69,996	55.06	39,843	31.34	12,004	9.44	5,291	4.16
Mississippi	89,989	44.62	59,937	29.72	30,103	14.93	21,651	10.74
New Jersey	431,569	57.27	215,357	28.58	71,627	9.50	35,023	4.65
New Mexico	79,979	42.46	58,694	31.16	28,392	15.07	21,309	11.31
Ohio	257,401	58.08	117,259	26.46	42,739	9.64	25,797	5.82
Rhode Island	31,468	54.66	17,585	30.54	5,534	9.61	2,988	5.19
All States	1,854,200	53.05	1,022,615	29.26	388,979	11.13	229,256	6.56

Note. Percentages are based on the number of valid responses. Missing = 8,424.

Table J-8. Student Survey ELA CBT: Q7. How often do you use a computer or tablet in school?

	Every Day		A Few Times a Week		A Couple Times A Month or Less		Do Not Use at School	
State	n	%	n	%	n	%	n	%
Arkansas	82,196	30.91	111,538	41.94	65,012	24.45	7,178	2.70
Colorado	104,966	27.63	159,306	41.94	102,934	27.10	12,628	3.32
District of Columbia	8,018	26.19	13,372	43.68	8,083	26.40	1,140	3.72
Illinois	207,305	19.12	298,913	41.99	185,957	26.12	19,751	2.77
Maryland	63,731	19.03	129,409	38.65	128,378	38.34	13,2983	3.97
Massachusetts	25,148	19.79	54,865	43.17	43,163	33.96	3,910	3.08
Mississippi	56,273	27.91	77,596	38.48	57,547	28.54	10,226	5.07
New Jersey	170,505	22.63	302,399	40.14	252,073	33.46	28,325	3.76
New Mexico	40,141	21.31	68,691	36.47	70,092	37.21	9,440	5.01
Ohio	126,236	28.49	190,780	43.06	116,587	26.31	9,476	2.14
Rhode Island	13,130	22.81	24,623	42.78	17,687	30.73	2,115	3.67
All States	897,649	25.69	1,431,492	40.97	1,047,513	29.98	117,487	3.36

Note. Percentages are based on the number of valid responses. Missing = 9,333.

Table J-9. Student Survey ELA CBT: Q8. When writing a story or essay, how often do you use a computer or tablet?

	All of the Time		Most of the Time		Some of the Time		Never	
State	n	%	n	%	n	%	n	%
Arkansas	30,367	11.42	76,930	28.93	119,539	44.96	39,070	14.69
Colorado	61,138	16.10	128,718	33.89	146,040	38.45	43,883	11.55
District of Columbia	5,179	16.91	9,640	31.47	11,837	38.64	3,978	12.99
Illinois	123,966	17.41	270,825	33.83	264,057	37.09	83,012	11.66
Maryland	46,868	14.00	99,071	29.59	141,368	42.22	47,546	14.20
Massachusetts	18,879	14.85	42,586	33.50	50,745	39.92	14,907	11.73
Mississippi	19,691	9.77	45,242	22.44	91,754	45.52	44,903	22.27
New Jersey	124,825	16.57	256,826	34.09	287,091	38.11	84,569	11.23
New Mexico	23,747	12.61	52,977	28.13	79,348	42.13	32,280	17.14
Ohio	58,895	13.29	146,176	32.99	184,859	41.72	53,157	12.00
Rhode Island	10,091	17.52	18,779	32.61	21,641	37.58	7,080	12.29
All States	523,646	14.99	1,117,770	31.99	1,398,279	40.02	454,385	13.00

Note. Percentages are based on the number of valid responses. Missing = 9,394.

Table J-10. Student Survey ELA CBT: Q9. Would you rather take this test on paper OR on a computer or tablet?

	On Paper		On a Computer or Tablet	
State	n	%	n	%
Arkansas	101,474	38.16	164,431	61.84
Colorado	114,693	30.22	264,825	69.78
District of Columbia	6,316	20.62	24,315	79.38
Illinois	210,536	29.58	501,193	70.42
Maryland	70,325	21.00	264,494	79.00
Massachusetts	43,465	34.21	83,597	65.79
Mississippi	58,958	29.25	142,641	70.75
New Jersey	263,472	35.00	489,338	65.00
New Mexico	56,889	30.21	131,438	69.79
Ohio	169,600	38.28	273,416	61.72
Rhode Island	14,662	25.47	42,900	74.53
All States	1,110,390	31.79	2,382,588	68.21

Note. Percentages are based on the number of valid responses. Missing = 10,496.

Table J-11. Student Survey ELA CBT: Q10. What did you use to take this test?

	Desktop Computer		Laptop Computer		Tablet with a Keyboard		Tablet without Keyboard	
State	n	%	n	%	n	%	n	%
Arkansas	96,603	36.33	154,573	58.14	12,787	4.81	1,920	0.72
Colorado	138,951	36.61	218,121	57.48	18,225	4.80	4,199	1.11
District of Columbia	6,588	21.53	22,858	74.69	861	2.81	298	0.97
Illinois	276,510	38.85	377,647	53.06	48,665	6.84	8,877	1.25
Maryland	129,692	38.73	183,990	54.95	18,079	5.40	3,064	0.92
Massachusetts	37,730	29.69	70,422	55.41	15,430	12.14	3,519	2.77
Mississippi	131,439	65.22	59,197	29.37	8,117	4.03	2,792	1.39
New Jersey	225,821	29.98	477,972	63.46	42,994	5.71	6,420	0.85
New Mexico	117,394	62.32	60,859	32.31	7,920	4.20	2,193	1.16
Ohio	162,670	36.72	256,616	57.92	20,557	4.64	3,183	0.72
Rhode Island	16,504	28.66	39,472	68.55	1,209	2.10	393	0.68
All States	1,339,902	38.36	1,921,727	55.01	194,844	5.58	36,858	1.06

Note. Percentages are based on the number of valid responses. Missing = 10,143.

Table J-12. Student Survey ELA CBT: Q11. Was it easy to type your answers?						
	Yes		No		Did Not Type Answers	
State	n	%	n	%	n	%
Arkansas	136,721	51.43	18,783	7.07	110,346	41.51
Colorado	207,058	54.58	34,485	9.09	137,817	36.33
District of Columbia	15,152	49.52	2,417	7.90	13,026	42.58
Illinois	376,205	52.87	55,025	7.73	280,360	39.40
Maryland	172,657	51.58	23,841	7.12	138,256	41.30
Massachusetts	71,016	55.89	11,873	9.34	44,164	34.76
Mississippi	81,452	40.42	8,954	4.44	111,093	55.13
New Jersey	411,180	54.61	82,764	10.99	259,019	34.40
New Mexico	109,563	58.18	18,264	9.70	60,485	32.12
Ohio	209,088	47.20	31,962	7.22	201,932	45.58
Rhode Island	33,728	58.58	4,712	8.18	19,136	33.24
All States	1,823,820	52.22	293,080	8.39	1,375,634	39.39

Note. Percentages are based on the number of valid responses. Missing = 10,940.

Table J-13. Student Survey ELA CBT: Q12. How many times did you practice on a computer or tablet to get ready for this test?						
	Never		Once		More than Once	
State	n	%	n	%	n	%
Arkansas	66,300	24.94	74,077	27.87	125,448	47.19
Colorado	138,715	36.58	114,868	30.29	125,655	33.13
District of Columbia	9,985	32.64	7,954	26.00	12,651	41.36
Illinois	238,019	33.46	220,610	31.01	252,816	35.54
Maryland	123,960	37.04	107,120	32.01	103,613	30.96
Massachusetts	32,048	25.23	34,399	27.08	60,601	47.70
Mississippi	58,960	29.27	48,044	23.85	94,414	46.87
New Jersey	201,472	26.76	214,237	28.46	337,177	44.78
New Mexico	58,970	31.32	56,021	29.75	73,299	38.93
Ohio	108,770	24.56	122,839	27.73	211,309	47.71
Rhode Island	18,118	31.48	18,153	31.54	21,285	36.98
All States	1,055,317	30.22	1,018,322	29.16	1,418,268	40.62

Note. Percentages are based on the number of valid responses. Missing = 11,567.

Table J-14. Student Survey ELA CBT: Q13. Was it easy to use the highlighter?						
	Yes		No		Did Not Use Highlighter	
State	n	%	n	%	n	%
Arkansas	135,358	50.92	13,532	5.09	116,912	43.98
Colorado	192,767	50.85	23,017	6.07	163,322	43.08
District of Columbia	17,929	58.68	2,069	6.77	10,557	34.55
Illinois	374,686	52.67	36,322	5.11	300,330	42.22
Maryland	172,195	51.46	19,838	5.93	142,588	42.61
Massachusetts	65,856	51.84	8,748	6.86	52,429	41.27
Mississippi	127,926	63.53	7,323	3.64	66,118	32.83
New Jersey	382,012	50.75	51,754	6.88	318,998	42.38
New Mexico	111,952	59.46	10,491	5.57	65,836	34.97
Ohio	242,449	54.74	21,518	4.86	178,921	40.40
Rhode Island	31,632	54.96	3,715	6.45	22,209	38.59
All States	1,854,762	53.13	198,327	5.68	1,438,220	41.19

Note. Percentages are based on the number of valid responses. Missing = 12,165.

Table J-15. Student Survey ELA CBT: Q14. Was it easy to make pictures or words bigger or smaller?						
	Yes		No		Did Not Change Size	
State	n	%	n	%	n	%
Arkansas	54,951	20.68	18,219	6.86	162,582	72.47
Colorado	78,206	20.64	35,177	9.29	265,465	70.07
District of Columbia	8,177	26.76	2,826	9.26	19,525	63.96
Illinois	156,012	21.94	54,128	7.61	500,941	70.45
Maryland	70,521	21.08	27,137	8.11	236,823	70.80
Massachusetts	27,617	21.75	11,238	8.85	88,098	69.39
Mississippi	46,251	22.98	11,470	5.70	143,585	71.33
New Jersey	146,586	19.48	74,438	9.89	531,437	70.63
New Mexico	47,705	25.35	18,404	9.78	122,088	64.87
Ohio	85,738	19.37	34,423	7.77	322,582	72.86
Rhode Island	13,719	23.85	5,067	8.81	38,726	67.34
All States	735,483	21.07	292,527	8.38	2,461,852	70.54

Note. Percentages are based on the number of valid responses. Missing = 13,612.

Table J-16. Student Survey ELA CBT: Q15. Was it easy to move back and forth between passages or stories?						
	Yes		No		Did Not Move Between Passages or Stories	
State	n	%	n	%	n	%
Arkansas	207,727	78.21	22,346	8.41	35,538	13.38
Colorado	293,718	77.58	35,648	9.42	49,233	13.00
District of Columbia	24,058	78.89	3,121	10.23	3,316	10.87
Illinois	555,086	78.10	59,529	8.38	96,156	13.53
Maryland	266,801	79.80	28,941	8.66	38,534	11.53
Massachusetts	101,835	80.26	11,762	9.27	13,286	10.47
Mississippi	167,994	83.50	12,830	6.38	20,363	10.12
New Jersey	566,608	75.35	88,868	11.82	96,536	12.84
New Mexico	150,730	80.12	17,884	9.51	19,509	10.37
Ohio	357,266	80.73	35,273	7.97	49,985	11.30
Rhode Island	44,760	77.88	5,335	9.28	7,378	12.84
All States	2,736,583	78.46	321,537	9.22	429,834	12.32

Note. Percentages are based on the number of valid responses. Missing = 15,520.

Table J-17. Student Survey ELA CBT: Q16. Was it easy to find information in the passages or stories when answering questions?						
	Yes		No		Did Not Move Between Passages or Stories	
State	n	%	n	%	n	%
Arkansas	193,695	72.93	57,006	21.46	14,896	5.61
Colorado	274,885	72.65	78,964	20.87	24,529	6.48
District of Columbia	23,043	75.58	5,789	18.99	1,657	5.43
Illinois	517,032	72.76	149,227	21.00	44,292	6.23
Maryland	246,710	73.82	69,693	20.82	17,800	5.33
Massachusetts	92,679	73.07	28,173	22.21	5,977	4.71
Mississippi	159,674	79.40	34,439	17.12	6,993	3.48
New Jersey	490,007	65.17	212,865	28.31	48,961	6.51
New Mexico	136,065	72.34	42,222	22.45	9,807	5.21
Ohio	327,201	73.94	96,184	21.74	19,110	4.32
Rhode Island	41,630	72.44	12,192	21.22	3,644	6.34
All States	2,502,621	71.77	786,754	22.56	197,666	5.67

Note. Percentages are based on the number of valid responses. Missing = 16,433.

Table I-18. Student Survey ELA CBT: Q17. Did you have problems logging into the test?				
	Yes		No	
State	n	%	n	%
Arkansas	55,430	20.86	210,254	79.14
Colorado	84,461	22.31	294,178	77.69
District of Columbia	10,032	32.88	20,482	67.12
Illinois	184,989	26.02	525,915	73.98
Maryland	75,722	22.65	258,665	77.35
Massachusetts	33,858	26.67	93,074	73.33
Mississippi	43,444	21.59	157,735	78.41
New Jersey	195,327	25.96	557,014	74.04
New Mexico	50,421	26.79	167,784	73.21
Ohio	96,988	21.91	345,765	78.09
Rhode Island	14,233	24.76	43,254	75.24
All States	844,905	24.22	2,644,120	75.78

Note. Percentages are based on the number of valid responses. Missing = 14,449.

Table I-19. Student Survey ELA CBT: Q18. Did the computer (or tablet) stop working?				
	Yes		No	
State	n	%	n	%
Arkansas	22,184	8.35	243,362	91.65
Colorado	41,533	10.98	336,848	89.02
District of Columbia	3,438	11.28	27,044	88.72
Illinois	76,614	10.78	634,007	89.22
Maryland	33,277	9.96	300,862	90.04
Massachusetts	14,429	11.37	112,424	88.63
Mississippi	13,447	6.69	187,606	93.31
New Jersey	91,516	12.17	660,406	87.83
New Mexico	21,593	11.48	166,487	88.52
Ohio	36,544	8.26	406,042	91.74
Rhode Island	6,354	11.06	51,112	88.94
All States	360,929	10.35	3,126,200	89.65

Note. Percentages are based on the number of valid responses. Missing = 16,345.

Table I-20. Student Survey ELA CBT: Q19. Did the computer (or tablet) work slowly?				
	Yes		No	
State	n	%	n	%
Arkansas	50,833	19.14	214,717	80.86
Colorado	76,613	20.25	301,737	79.75
District of Columbia	6,053	19.85	24,434	80.15
Illinois	135,682	19.10	574,878	80.90
Maryland	54,964	16.45	279,175	83.55
Massachusetts	25,356	19.99	101,502	80.01
Mississippi	31,548	15.69	169,516	84.31
New Jersey	155,626	20.70	596,192	79.30
New Mexico	38,099	20.25	150,002	79.75
Ohio	72,422	16.37	370,099	83.63
Rhode Island	9,596	16.70	47,860	83.30
All States	656,792	18.84	2,830,112	81.16

Note. Percentages are based on the number of valid responses. Missing = 16,570.

Table I-21. Student Survey ELA CBT: Q20. Did you have a hard time dragging or moving things on the screen?				
	Yes		No	
State	n	%	n	%
Arkansas	72,282	27.22	193,263	72.78
Colorado	112,992	29.87	265,342	70.13
District of Columbia	8,841	29.01	21,633	70.99
Illinois	174,550	24.57	536,009	75.43
Maryland	87,349	26.15	246,706	73.82
Massachusetts	35,494	27.98	91,342	72.02
Mississippi	36,553	19.68	161,440	80.32
New Jersey	226,150	30.08	525,637	69.92
New Mexico	51,711	27.50	136,347	72.50
Ohio	115,382	26.08	327,101	73.92
Rhode Island	14,243	24.79	43,212	75.21
All States	938,547	26.92	2,548,032	73.08

Note. Percentages are based on the number of valid responses. Missing = 16,895.

Table I-22. Student Survey ELA CBT: Q21. Did you have a hard time making changes to your answers?				
	Yes		No	
State	n	%	n	%
Arkansas	10,918	15.41	224,594	84.59
Colorado	61,658	16.30	316,530	83.70
District of Columbia	5,320	17.45	25,159	82.55
Illinois	112,727	15.87	597,638	84.13
Maryland	51,816	15.51	282,272	84.49
Massachusetts	19,615	15.47	107,217	84.53
Mississippi	30,807	15.34	170,085	84.66
New Jersey	142,088	18.90	609,563	81.10
New Mexico	32,528	17.30	155,494	82.70
Ohio	60,883	13.76	381,532	86.24
Rhode Island	8,668	15.09	48,789	84.91
All States	567,029	16.27	2,918,873	83.73

Note. Percentages are based on the number of valid responses. Missing = 17,572.

Table I-23. Student Survey ELA CBT: Q22. Please click on the sentence that is most true:				
	No Tech Problems During Test		Tech Problems During Test	
State	n	%	n	%
Arkansas	216,227	81.44	49,266	18.56
Colorado	297,997	78.82	80,068	21.18
District of Columbia	24,319	79.82	6,147	20.18
Illinois	560,842	78.94	149,604	21.06
Maryland	267,790	80.15	66,338	19.85
Massachusetts	96,810	76.33	30,024	23.67
Mississippi	171,966	85.58	28,966	14.42
New Jersey	573,119	76.23	178,683	23.77
New Mexico	176,751	78.00	41,384	22.00
Ohio	361,001	81.60	81,419	18.40
Rhode Island	46,206	80.42	11,253	19.58
All States	2,763,028	79.26	723,152	20.74

Note. Percentages are based on the number of valid responses. Missing = 17,294.

Appendix K – Specific Suggestions Obtained from TAs during Debriefing Interviews for Improving TA Manual, Scripts and Training

While conducting debriefing interviews, TAs sometimes provided suggestions for improvement to PARCC processes and procedures. Those recommendations were documented and are presented by topic below.

Manuals

1. Verify consistent use of terminology in all written materials.
2. Provide checklists for common processes such as starting and ending sessions, and possibly include screenshots for each step.
3. Provide additional guidance on managing exceptions and responding to student questions.
4. Include a trouble-shooting guide for common technology issues.
5. Add an index to the manual.

Scripts

1. Add a reminder to the TA script to start the session on the TA computer prior to starting the script.
2. Streamline the scripts to minimize redundancy between sessions.
3. Include the option for TAs to provide instructions specific to the accommodation or accessibility feature students may access.
4. Eliminate the universal directions to test headphones.
5. Include all of the directions as text on the screen for students to follow along as the TA reads them the directions from the script.
6. Clarify instructions for navigating between sections and sessions.
7. Provide instructions in the script for the Student Survey.

Training

1. Revisit all training materials to verify consistency of language and format with the TA and TC test interface and the student view of the assessment.
2. Develop additional training materials that provide detailed instructions on common tasks, such as skipping sessions for a student who was absent, setting up student computers, and starting or resuming test sessions.
3. Develop a best practices guideline document based on successful experiences of school and districts, such as providing drop-in labs for TCs and TAs to learn from each other.