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Revision 1

Ohio Graduation Tests
Alternate Assessment Standard Setting in Mathematics, English Language Arts, Science, and Social Studies

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Measurement Incorporated ™

June 1, 2005

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Standard Setting Report

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Mathematics, English Language Arts,
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Section 1: Summary and Results

In November of 2004, Measurement Incorporated (MI), the contractor responsible for developing the Ohio Graduation Test Alternate Assessment, presented a standard-setting plan to the ODE and its Technical Advisory Committee (TAC). The ODE approved the plan, with minor modifications. On April 28-30, 2005, the Ohio Department of Education convened a group of fourteen educators from around the state to recommend performance standards (cut scores). The group consisted of special education teachers familiar with different subpopulations within students with disabilities programs and coordinators and administrators of those programs. Implementing the final, approved version of the plan, Dr. Elliot Inman of MI led the group through a three-day process for setting performance standards. The method employed was a holistic, body-of-work methodology in which panelists reviewed a set of student work and judged that work as being in one of the five Ohio performance level categories: Limited, Basic, Proficient, Accelerated, and Advanced.

The materials reviewed included approximately 66 collections of evidence from each of the four content areas: English Language Arts, Mathematics, Science, and Social Studies. Consistent with the design of the assessment, teachers are to identify a state standard for each student and provide one entry with multiple pieces of evidence to support that entry – for each student in each of the four content areas. The group of 14 panelists reviewed that student work in all four content areas. The meeting began with an introduction to that method, a review of the history and development of the Alternate Assessment, and a careful study of the performance level descriptors for the five categories of performance.

The panelists rendered their judgments in four separate rounds of decisions. After each round, the panelists discussed their judgments with their peers in small groups of three or four panelists. After each round, MI staff entered their ratings, cross-referenced them with the scores the students had earned, determined median scores for each category, and calculated the midpoints between medians of adjacent categories to determine cut scores. After each round, the panelists were presented with the results, including their own cut scores, the recommended cut scores of the other panelists, and impact data from the total population for the Spring 2005 administration.

In the first two rounds, panelists were asked to focus on Proficient versus Not-proficient. While the Alternate Assessment is not a high-stakes assessment for students, this is a critical distinction for the regular assessment and was considered here to provide some continuity and articulation between the assessments. In rounds three and four, panelists were asked to judge students as being in one of the five possible categories.

In considering the results of this assessment, it is critical to understand the method by which these collections are scored. Figure 1 shows the scoring rubric. Alternate Assessments are

scored in four domains, but only two of those domains are used in a student score: Performance and Instructional Context. The combination of the three possible points for Performance and four possible points for Instructional Context create a 0 to 12 scale. Two readers read the collections and their judgments are combined, creating a 0 to 24 point scale. However, given the combination of these two domains and two readers, some scores on the 0 to 24 scale are not possible.

Figure 1: Scoring Rubric

Scoring Rubric

Scoring Criteria for the Alternate Assessment for Students with Disabilities, 2004-2005

Criteria for Student Achievement Score				
DOMAIN*	**Score 0**	**Score 1**	**Score 2**	**Score 3**
PERFORMANCE (scored for the entire entry)	There is evidence of no active performance of skill.	Student attempts the tasks, but there is evidence of minimal or limited skill.	Student performs the tasks with reasonable skill.	Student performs the tasks with consistent skill.
	Score 1	**Score 2**	**Score 3**	**Score 4**
INSTRUCTIONAL CONTEXT (scored for the entire entry)	Materials are not age-appropriate **and** tasks do not reflect a (simulated) real-world application.	Materials are age-appropriate **or** tasks reflect a (simulated) real-world application.	Materials are age-appropriate **and** tasks reflect a simulated real-world application.	Materials are age-appropriate **and** tasks reflect a real-world application.
Student Achievement Scores are Calculated by Multiplying Performance by Instructional Context for Each Entry				
Criteria for the Classroom Environment Scores				
DOMAIN*	**Score 1**	**Score 2**	**Score 3**	**Score 4**
INDEPENDENCE (scored for the entire entry)	Student performs tasks with continuous prompting.	Student performs tasks with frequent prompting.	Student performs tasks with limited prompting.	Student performs tasks without prompting.
SETTINGS AND INTERACTIONS (scored for the entire collection of evidence)	Student performs tasks in one setting with no evidence of interaction(s).	Student performs tasks in two different settings with evidence of interaction(s).	Student performs tasks in two different settings with evidence of interaction(s) with nondisabled peers and/or community.	Student performs tasks in three or more different settings with evidence of interaction(s) with nondisabled peers and/or community.

Figure 2 shows the actual distribution of student scores from the 1,114 students scored. As the graph shows, there are a significant number of students at the 0 score point. These are students deemed "non-scorable" as their collections of evidence for that content area did not include the necessary evidence to score the assessment. In impact data to panelists, percents in category were presented two ways: including these students in Limited and excluding these students. This graph also reflects the nature of the scoring in that there are relatively few students who had scorable collections that earned less than 10 raw score points. Furthermore, some score points such as 17, 19, 22, and 23 are impossible to obtain.

Figure 2: Raw Score Distribution: OGT Alternate Assessment 2005

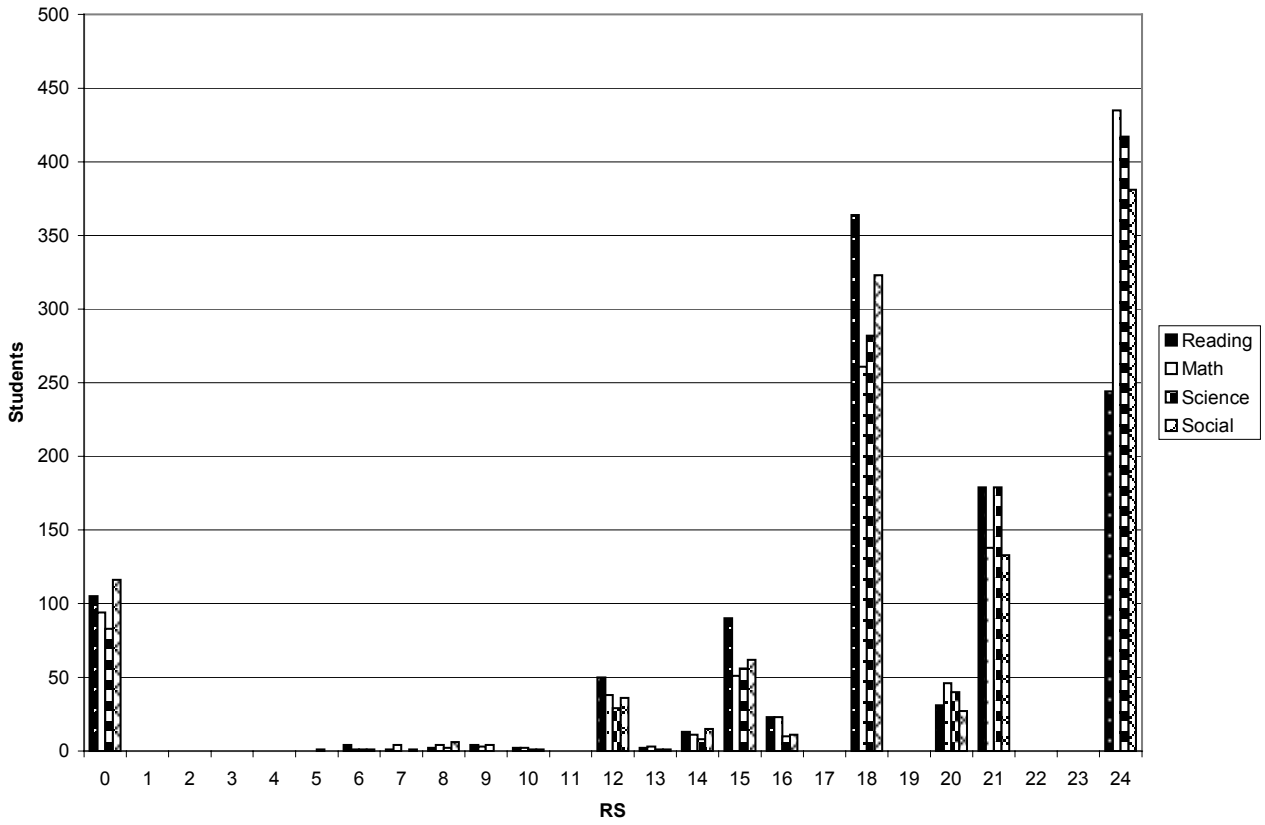

Table 1 shows the final cut scores and resulting percents in category with and without scorable assessments, as recommended by the standard setting committee.

Table 1
Final Cut Scores and Percentages of Students in Each Category

Performance Standards	OHIO GRADUATION TESTS ENGLISH LANGUAGE ARTS (READING /WRITING) Alternate Assessment for Students with Disabilities			
	Cut Score (Out of 24)	Percent of Total Points	Percent in Category of Scorable	Percent in Category of Total
Limited	--	---	0.50%	9.87%
Basic	8	33.3%	0.79%	0.72%
Proficient	12	50.0%	17.64%	15.98%
Accelerated	17	70.8%	39.15%	35.46%
Advanced	21	87.5%	41.92%	37.97%
Proficient or above	12	50.0%	98.7%	89.4%
Performance Standards	**OHIO GRADUATION TESTS MATHEMATICS Alternate Assessment for Students with Disabilities**			
	Cut Score (Out of 24)	**Percent of Total Points**	**Percent in Category of Scorable**	**Percent in Category of Total**
Limited	--	---	.88%	9.25%
Basic	9	37.5%	.49%	.45%
Proficient	12	50.0%	12.35%	11.31%
Accelerated	17	70.8%	43.63%	39.95%
Advanced	22	91.7%	42.65%	39.05%
Proficient or above	12	50.0%	98.6%	90.3%

Table 1 continued.

Performance Standards	OHIO GRADUATION TESTS SCIENCE Alternate Assessment for Students with Disabilities			
	Cut Score (Out of 24)	Percent of Total Points	Percent in Category of Scorable	Percent in Category of Total
Limited	--	---	0.78%	8.17%
Basic	10	41.7%	2.91%	2.69%
Proficient	13	54.2%	7.27%	6.73%
Accelerated	17	70.8%	48.59%	44.97%
Advanced	22	91.7%	40.45%	37.43%
Proficient or above	13	54.2%	96.3%	89.1%
Performance Standards	**OHIO GRADUATION TESTS SOCIAL STUDIES Alternate Assessment for Students with Disabilities**			
	Cut Score (Out of 24)	**Percent of Total Points**	**Percent in Category of Scorable**	**Percent in Category of Total**
Limited	--	---	0.20%	10.59%
Basic	9	37.5%	0.70%	0.63%
Proficient	12	50.0%	12.53%	11.22%
Accelerated	17	70.8%	35.07%	31.42%
Advanced	21	87.5%	51.50%	46.14%
Proficient or above	12	50.0%	99.1%	88.8%

Impact by Group

MI provided impact data to panelists, first for all students tested, and then by subgroup for gender and ethnicity. For ethnicity, only white and African-American subgroups included more than 30 students, so only those data are shown below in Table 2. These data included non-scorables in the Limited category. There are 750 white students and 291 African-American students in each content area and 443 females and 669 males. All numbers are in percents.

Table 2: Impact after Round 4 by Content Area and Demographic Group

	English Language Arts					Proficient or Above
Group	Limited	Basic	Proficient	Accelerated	Advanced	
BL-AA	13.4	1.37	15.81	33.33	36.08	85.22
White	8.53	.53	16.27	35.47	39.20	90.94
Female	9.71	.68	15.58	36.34	37.70	89.62
Male	9.87	.75	16.29	34.83	38.27	89.39
	Mathematics					Proficient or Above
Group	Limited	Basic	Proficient	Accelerated	Advanced	
BL-AA	13.06	1.03	9.97	34.36	41.58	85.91
White	7.60	.27	12.00	41.33	38.80	92.13
Female	7.67	.45	11.29	38.37	42.21	91.87
Male	10.16	.45	11.36	40.96	37.07	89.39
	Science					Proficient or Above
Group	Limited	Basic	Proficient	Accelerated	Advanced	
BL-AA	10.65	1.72	5.84	46.74	35.05	87.63
White	7.33	3.33	7.20	43.47	38.67	89.34
Female	8.35	2.26	7.45	47.40	34.54	89.39
Male	8.07	2.99	6.13	43.35	39.46	88.94
	Social Studies					Proficient or Above
Group	Limited	Basic	Proficient	Accelerated	Advanced	
BL-AA	15.12	.34	11.34	30.93	42.27	84.54
White	8.80	.80	10.93	31.60	47.87	90.40
Female	9.48	1.13	12.42	31.83	45.15	89.40
Male	11.36	.30	10.31	31.09	46.94	88.34

Results by Rounds

As noted above, panelists engaged in four rounds of judgments. The first two rounds were dedicated to determining the difference between Proficient and above versus Below Proficient. As shown in Table 3, the placements were generally stable across rounds. The largest difference over any level over rounds was for Proficient for ELA and Mathematics. ELA spanned 11 to 13 with 12 as the final cut. Mathematics included judgments of 12 and 14. Fourteen was the cut from the first round with 12 as the cut in each successive round. Otherwise, all raw cut scores by level were within one point over the rounds.

Table 3: Cut Scores by Round

Content Area	Basic	Proficient	Accelerated	Advanced
ELA R1		13		
ELA R2		13		
ELA R3	9	11	17	21
ELA R4	**8**	**12**	**17**	**21**
Mathematics R1		14		
Mathematics R2		12		
Mathematics R3	9	12	17	22
Mathematics R4	**9**	**12**	**17**	**22**
Science R1		14		
Science R2		14		
Science R3	10	14	18	22
Science R4	**10**	**13**	**17**	**22**
Social Studies R1		13		
Social Studies R2		13		
Social Studies R3	9	12	16	21
Social Studies R4	**9**	**12**	**17**	**21**

Discussion

One might initially be struck by the relatively high percent of students who are at the Proficient or above category for these assessments. The standard setting committee discussed this in relation to the work they reviewed and the performance level descriptors and deemed their judgments appropriate. The nature of the rubric and the clarity of instructions to teachers submitting these collections make many low scores of 10 points or below impossible or highly unlikely. It is worth noting that, because of the relatively large percent of perfect scores of 24, if even the highest possible raw cut score for the assessment was recommended for Advanced, approximately one third or more of students would have been Advanced.

Standard setting combines the democratic process of group interaction and decision making with carefully planned and executed steps based on well-defined mathematical models. The processes by which the standard-setting activities for the Alternate Assessments of the OGT were carried out, described in detail in the body of this report, were developed by experienced psychometricians consistent with best practices research from the field of educational measurement and reviewed by a national body of experts in the field. The plans were carried out under the supervision of ODE staff and two external reviewers who are also experts in this field. Because there are no "true" cut scores for any test, the recommended cut scores are only as valid as the processes by which they were derived. By all accounts, these standard-setting activities were well planned and executed.

Section 2: Background and Methodology

In June of 2004, Measurement Incorporated reported on the methods and findings of a standard setting study undertaken to identify cutoff scores on the Ohio Alternate Assessment. Since that time, a number of changes were made to the Ohio Alternate Assessment, including changes to the scoring rubric, that necessitated resetting the cut scores for the instrument. To accommodate these considerations, Measurement Incorporated (MI) integrated important elements from the original 2004 standard setting plans into a new standard setting plan for the revised assessment. In many ways, the plans were identical: body of work was the methodology; raters reviewed papers in rounds of judgments first focusing on proficient versus not-proficient; and the method for identifying a cut score was the same. In other ways, the process was different. In 2004, many COEs were deemed not scorable because of insufficient evidence; in 2005, the requirements for evidence were reduced and thus reduced the number of non-scorable collections. Also, in 2004, a common set of cut scores were established for Reading and Mathematics; in 2005, we developed distinct cuts for each subject area.

Body of Work (BOW) Standard Setting

As the implementation table in Appendix A shows, the different grades of AASWD have some significant differences. For example, four subjects (English, Mathematics, Science, and Social Studies) are tested at grade 10 while only English and/or Mathematics skills are assessed in grades 3 - 8. Nevertheless, in most ways, the grades 3 – 8 and OGT assessments are alike. As Appendix B shows, beginning in the spring of 2005, there was a single rubric used to score the different grades. Indeed, the upper and lower grade assessments share the same administration manual and procedures.

For assessments like Ohio's Alternate Assessment for Students with Disabilities (AASWD), the appropriate standard setting methodology is a body of work (BOW) approach in which standard setting raters review actual student responses to make a judgment about which level of performance a certain example of student work represents. The BOW standard setting technique (Kingston, Kahl, Sweeney & Bay, 2001), like some other similar approaches (e.g., Plake & Hambleton, 2001; Jaeger & Mills, 2001), focuses on whole collections of student work. Kingston et al. (2001) have described the BOW standard setting technique in some detail.

Critical considerations. In every standard setting session, a few critical factors define and determine the success of the process. Those include:

Selection of appropriate committee members;
Definition of task for committee members;
Selection of student work or other assessment materials to review;
Method for collecting and summarizing ratings;
Method and timing for providing feedback to raters and mediating discussion; and

Sequencing of multiple rounds leading to a final set of proposed cut scores.

Each of these is discussed below with the specific steps taken for this standard setting described.

Selection of committee members and training. The state selected fourteen special education educators to serve on the panel. Although all panelists were familiar with the assessment and the population for which it is designed, a background Powerpoint slideshow was presented to acquaint standard setters with the history of the AASWD and the task to be performed.

Several critical points were re-iterated throughout the process, including:

- The committee was to suggest cut scores to the State Board of Education, but the committee cannot make the cut scores law;
- The committee was to make a thoughtful judgment about student performance in a standards-based context taking into consideration possible pass rates and retention, but pass rates were not to dictate their judgments about level of achievement;
- The committee was to make judgments about the extent to which a student has reached a critical level in mastery of standards, but the committee was not to allow feedback about actual scores (e.g., 12 out of 24) dictate their judgments about level of achievement; and
- Although the group would have the actual rubric used for scoring the COEs and the COEs themselves, the goal was not for raters to score each COE, but to assign a level of performance.

One thing very common to a standard setting process involving COEs from students with disabilities is the problem of distinguishing the work of the teacher in preparing the COE from the work of the student represented in the COE. Efforts are made in training teachers and scoring the COEs to distinguish the two. For example, a COE containing a video with some aesthetic merit should not be awarded more points than a COE in which written work on paper demonstrates the same level of proficiency. That same distinction was made in training the standard setting committee here.

Finally, the most critical piece of training was the introduction to the proficiency level descriptors (see Appendix D). The state, based on its own content standards, developed a set of narrative descriptions of the cognitive skills and knowledge that define the five levels of achievement. Although the materials were specific to each content area, they followed a general pattern as reflected in Table 4 below.

Table 4: Performance Level Descriptors General Distinctions

	Students perform tasks that access the content standards with:	Students perform tasks that reflect:
Advanced	Consistent skill	Age-appropriate materials Real-world activities
Accelerated	Consistent skill	Age-appropriate materials Simulated real-world activities
Proficient	Reasonable skill	Age-appropriate materials Simulated real-world activities
Basic	Reasonable skill	Age-appropriate materials OR Simulated real-world activities OR Real-world activities
Limited	COE does not indicate performance of appropriate tasks that access content standards	

Using these descriptors, a practice round with feedback and discussion was employed to guarantee that raters understood their task and how to proceed. The practice round asked them to judge 6 collections as proficient or not proficient. The panelists made their judgments, a tally was made of their judgments, and the group discussed the process. Throughout the training, practice, and each additional round, the performance level descriptors were emphasized.

To be sure that all standard setters understood the feedback they were receiving and what they needed to do next, before each new round, each rater was asked whether he or she was ready to continue. That readiness form is included in Appendix E. If there was any uncertainty, those questions were answered before continuing. Feedback from panelists indicated that they did understand and were comfortable with the process throughout.

Selection of Student Work. In the case of a BOW standard setting, panelists review actual student work, the COE. However, early in the scoring process for the spring 2005 administration, a particular problem arose in terms of selecting a sample of real student work for the standard setting meeting. Very few actual students were earning the lowest possible scores on the rubric (see Appendix I for tabulation of all content area total scores with and without nonscorables included).

The full possible scale of points for a student score for this assessment can range from 0 to 24. However, the only way to earn a 0 is to submit completely unscorable work. For a student who submitted scorable entries, the lowest possible score was 2 (1 on Instructional Context * 1 on Performance * 2 readers). Furthermore, the only odd scores (5, 7, 9…) in the distribution arise from situations in which readers disagree by one point (adjacent agreement). Thus, the scale may seem linear, but there are few scores at the bottom of the distribution and relatively fewer odd scores in between, assuming appropriate COEs are submitted. This became evident during rangefinding for the assessment when real student work was first being reviewed.

In the scoring process, it became clear that few students would earn scores less than approximately 12 raw score points. To be able to represent those possible score points on the scale, some student work was modified to represent lower scores. Even then, we made no effort to represent scores below 6. The following tables show the distribution of papers selected for the standard setting. These are not necessarily the same students in each subject, although there is a some overlap.

Table 5: Score Points Represented in COEs Selected

Score	ELA	Math	Science	Social Studies
6	3	3	3	3
7	3	2	3	4
8	6	5	6	6
9	3	4	3	3
10	3	3	3	3
11	6	6	5	6
12	4	5	3	3
13	3	3	3	3
14	3	3	3	3
15	3	3	3	3
16	6	6	6	7
18	5	5	6	5
20	6	6	6	6
21	6	6	6	6
24	6	7	7	6
Papers	66	67	66	67

Panelists were told about the simulation of some student work in the data and asked to treat those materials as real student work.

Method for collecting and summarizing ratings. There is a very practical problem in reviewing COEs in a body of work standard setting. Some COEs can be reviewed faster than others because they include less evidence or more clearly represent a particular level of achievement. It is also true that some raters may work more quickly than others, while maintaining an equivalent quality of judgment. To allow raters to make as many valid judgments as possible, and thus improve the reliability of individual cut scores, raters selected COEs to review from the collection of papers placed at the front of the room. Panelists were allowed to work at their own pace. The collections were arranged by subject and laid out from the lowest to the highest scoring collection. Panelists were told about this ordering and asked to use this information as they worked to select collections.

In Round 1, panelists reviewed COEs in range-finding fashion in order to identify papers they felt were or were not Proficient. Raters were asked initially, at the start of Round 1, to select a collection from the middle of the table. If they felt that the COE was below proficient, then they should select one from the right, a higher score. If they felt that the COE was proficient or better, then they should select from the left, a lower score. Raters were not told the exact score on the COEs, but they were told about the ordering of the COEs. In Round 2, panelists reviewed additional COEs in order to pinpoint their individual judgments concerning a Proficient cut score. Rounds 3 and 4 followed similarly for the Limited, Accelerated, and Advanced cut scores. In this fashion, readers were allowed to make as many judgments as possible, working at their own pace, and allowing as much time as necessary to judge each COE. This also allowed them to conduct their own pinpointing of the cuts, selecting COEs in the distribution where they were contemplating a distinction between proficiency levels. For each round, each subject, raters completed a rating sheet (see Appendix G for an example).

Method for Determining a Cut Score. To find a cut score for each judge, we took the median raw score of the COEs that Judge X classified as Level 1, Level 2, Level 3, and so on. Table 6 shows – using example data -- for one rater (Rater) a list of possible COEs (COE) and the resulting Rating, which could be from 1 to 5, representing the Levels 1 to 5. At the far right would be the actual raw score for that COE.

Table 6: Example Single Rater Judgment Summary

Rater	COE	Rating	ONE	TWO	THREE	FOUR	FIVE	SCORE
1	1	1	4					4.000
1	2							4.000
1	3	1	5					5.000
1	4							5.000
1	5	1	6					6.000
1	6	2		6				6.000
1	7							7.000
1	8							7.000
1	9	2		8				8.000
1	10							8.000
1	ETC…							24.000
1	MEDIAN		5	7			24	

We then took the median raw score of all judges to obtain the aggregate raw score for Level 1, Level 2, Level 3, and so on. We averaged the adjacent level medians to obtain the cut between the two levels. Table 7 shows – using example data -- the summary of 10 raters on the five levels. The medians for the levels are below in the MEDIANS row and the means between the medians are listed in the MIDPOINTS row. Thus, the cut for Level 2, Basic, would be 8.25. Any student earning 8.25 or more raw score points would be at least Basic. Any student earning less than 8.25 points would be Limited.

Table 7: Example Round Judgment Summary for All Raters

Rater	COE	ONE	TWO	THREE	FOUR	FIVE
1	SUMMARY	7	8	14	18	20
2	SUMMARY	5	9	15	18	24
3	SUMMARY	6	10	16	18	24
4	SUMMARY	8	9	16	18	20
5	SUMMARY	5	8	15	18	22
6	SUMMARY	7	9	14	18	23
7	SUMMARY	8	10	14	18	24
8	SUMMARY	6	10	14	18	24
9	SUMMARY	7	10	14	18	23
10	SUMMARY	9	13	15	18	23
	MEDIANS	7	9.5	14.5	18	23
	MIDPOINTS	8.25	12	16.25	20.5	

Based on data collected from the rating sheets, raters were provided with feedback on the numeric score point consistent with their aggregated judgments for their own ratings and for the group as a whole after each round. Appendix H shows all of these data for each round of each content area from the actual standard setting.

Method and timing for proving feedback to raters and mediating discussion and Sequencing of multiple rounds leading to a final set of proposed cut scores. The model for this standard setting was the same as for others: Rounds of judgments followed by feedback and discussion (see Appendix C for an agenda showing the round progression). On the first day of the meeting, the contractor and ODE presented the training and an overview of the process and assessment. Standard setters completed a security agreement and other forms and had the chance to ask a variety of questions and receive clarification both from contractor staff (procedures) and ODE staff (policy).

In Round 1, raters reviewed COEs only to determine whether that COE represents proficient work or not in that subject area. The question was specifically, "Does this COE represent proficiency or beyond as defined in your Proficiency Level Descriptors?" Raters were randomly assigned to discussion groups of 4 raters. Before turning in their personal judgments from a round, the panelists discussed the COEs and their judgments in these small groups, focusing on similarities and differences among those who judged the same COE and interpretations of the proficiency level descriptors and their application to a COE. Panelists were told to express their own opinions and carefully consider the opinions of others, but that the judgments they submitted were to be their own. They did not have to agree with their small group or come to a unanimous group decision.

After turning in their judgments, data were aggregated using the cut score methodology described. Feedback was presented to the raters in terms of the cut score derived from their judgments and in terms of the group's judgment. Impact data were provided based on their initial judgments against the full set of state scores. Panelists engaged in a collection discussion with the whole group.

Between each round, panelists were randomly assigned to different groups of 4.

Round 2 proceeded and additional judgments were made. At this point, judges were asked to follow the same COE selection process, but not to judge COEs they had judged in Round 1. A similar progression of individual judgments followed by small group discussion by submission of judgments, aggregation of cut scores, and feedback followed. After Round 2, summary judgments were analyzed and COEs within each content area were physically separated on the tables to make clear the line between the upper and lower levels: Above and Below Proficient, based on the group's aggregated judgments.

Rounds 3-4 were divided. Half of the raters were asked to work with the Below Proficient papers for the first half of the session, while the other half of the raters worked with the Proficient and above. At midpoint in the session, raters were asked to work with the other materials. For these rounds, raters were allowed to review COEs they had already reviewed, as they were making judgments about all five levels. Round 3-4 judgments were summarized as Round 1-2 judgments were and raters were provided with similar feedback which then included sample impact data for all levels of performance. After Round 4, there was no large group discussion, but raters were asked to complete a survey asking about their satisfaction with the

experience. Those survey data (see Appendix G) were almost universally positive about every aspect of the process.

References

Jaeger, R. M. & Mills, C. N. (2001). An integrated judgment procedure for setting standards on complex, large-scale assessments. In G. J. Cizek (Ed.*), Setting Performance Standards: Concepts, Methods, and Perspectives*. Mahwah, NJ: Lawrence J. Earlbaum Associates.

Kingston, N. M., Kahl, S. R., Sweeney, K. P., & Bay, L. (2001). Setting performance standards using the Body of Work method. In G. J. Cizek (Ed.*), Setting Performance Standards: Concepts, Methods, and Perspectives*. Mahwah, NJ: Lawrence J. Earlbaum Associates.

Plake, B. S. & Hambleton, R. K. (2001). The analytic judgment method for setting standards on complex performance assessments. In G. J. Cizek (Ed.*), Setting Performance Standards: Concepts, Methods, and Perspectives*. Mahwah, NJ: Lawrence J. Earlbaum Associates.

Appendix A: AASWD Implementation in Spring 2005*

Ohio Alternate Assessment
Required Testing 2004-05, Grades 3-8 and OGT

Grade	Standards-Based Alternate Assessment Subjects	Number of Standards per Subject	Number of Different Pieces of Evidence per Standard	Total Entries to be Submitted
3	ELA: Reading	2 (different standards)	2-3	2
	Mathematics	2 (different standards)	2-3	2
4	ELA: Reading	1 (in reading)	2-3	1
	Writing	1 (in writing)	2-3	1
	Mathematics	2 (different standards)	2-3	2
5	ELA: Reading	2 (different standards)	2-3	2
6	ELA: Reading	2 (different standards)	2-3	2
	Mathematics	2 (different standards)	2-3	2
7	Mathematics	2 (different standards)	2-3	2
8	ELA: Reading	2 (different standards)	2-3	2
	Mathematics	2 (different standards)	2-3	2
10 OGT	ELA: Reading or Writing	1	2-3	1
	Mathematics	1	2-3	1
	Science	1	2-3	1
	Social Studies	1	2-3	1

Office of Assessment, Ohio Department of Education, September 2004
(thanks to Cuyahoga Special Education Service Center for compiling this matrix)

* This table adapted from:
http://www.ode.state.oh.us/proficiency/alternate_assessment/WordDocs/Alternate_Assessment_2004-05.doc

Appendix B: Scoring Guidelines

Scoring Guidelines from the Ohio Alternate Assessment for Students with Disabilities Administration Manual

CHAPTER Six: Scoring the Collections of Evidence
It is important to understand each domain that will be scored before collecting evidence for Ohio's Alternate Assessment. Scoring domains are discrete dimensions that receive separate scores. Each scoring domain may consider one or more criteria or features of student evidence. The rubric that will be used can be found on page 15. It considers four scoring domains: *performance, instructional context, independence and settings and interactions.* Student achievement scores for each entry are calculated by multiplying performance by instructional context.

Performance
Performance is defined as the degree to which the student demonstrates a skill while completing standards-based tasks that require active voluntary responses. To determine a student's performance, the scorer must understand *what* the student was asked to do. Each **entry** should contain two or three pieces of evidence that show the student demonstrating a specific skill or using specific knowledge. Each piece of **evidence** should reflect one task with a specific outcome. Nothing should be left to the scorer's imagination. When completing an entry sheet, provide rich detailed descriptions to reduce erroneous assumptions about the evidence. Performance is scored from zero to three; three is the highest score attainable. Each entry is scored holistically for performance.

Instructional Context
Instructional context is defined as the degree to which the tasks contain age-appropriate materials and reflect real-world activities. When scorers are assessing COEs for instructional context, they will look for evidence of the following. Age-appropriate materials reflect the chronological age of the student. When selecting instructional materials consider the illustrations, language and format of the materials that are used in general education for students of the same age. Modifications are expected in selected materials, but should reflect an age-appropriate context. Real-world applications are the situations in which tasks are performed. Performing skills in "real-world applications" presents students with optimal conditions to generalize and transfer skills. Performing skills in real-world applications usually is associated with the highest levels of complexity in a child's instruction.

Performing skills in "simulated real-world applications" may lead to generalization and is considered an appropriate way to provide instruction for students. Simulated real-world applications allow students to demonstrate skill in a more controlled format. Instructional context is scored from one to four, with four being the highest score attainable. Each entry is scored holistically for instructional context.

Independence
The independence domain is defined as the degree to which assistance, or prompting, is provided to a student while he or she is completing standards-based tasks. *Verbal*, *physical* and *gestural*

prompts direct a student toward a correct response. Do not confuse *prompting* with *natural cues* that are necessary and acceptable during assessment. For example, all students must be asked to do something and must be given directions. Some students may need to be reminded to stay focused on the task at hand or may require physical supports, such as having someone hold a book so that they can see the contents. These types of supports are necessary, and they are appropriate, because they do not lead a student to the correct outcome. The independence domain is scored from one to four, with four being the highest score attainable. Each entry is scored holistically for independence. Scores given in the independence domain are based on the level of prompting provided to the student after the introduction of the lesson activities.

Settings and Interactions

The settings and interactions domain is defined as the observed environments (including the physical setting and the social interactions) in which tasks are administered or performed. Settings are the physical environments in which the student attempts the tasks. Interactions include the social environment, or individuals with whom the student interacts while attempting the tasks. Students should perform tasks in settings and with interactions that are relevant to the task. A variety of settings and social interactions offer students the opportunity to generalize skills.

Some broadly classified types of **settings** and specific examples follow:

• **Specialized settings:** Self-contained classroom, resource room, therapy room

• **General education classroom:** Typical grade-level classroom

• **Other school settings:** Natural places where students have opportunities to interact (e.g., library, cafeteria, gym, playground, bus)

• **Residence and community settings:** Home, residence, recreation center, restaurant, sporting event facility, store

Some broadly classified types of **interactions** and specific examples follow:

• **Classroom personnel:** Teachers and paraprofessionals who interact with the targeted student in an instructional role

• **Peers with disabilities:** Students with disabilities who are within two years of age of the targeted student

• **Family:** Parent, guardian, sibling

• **Peers without disabilities:** Students without disabilities who are within two years of age of the targeted student. Older students may have peers who are adult co-workers.

• **Community members:** Individuals outside of the classroom or school setting who are interacting with the student in a non-instructional role (e.g., store clerk, cafeteria worker, older/younger students in a school-related/non-instructional activity).

The settings and interactions domain is scored from one to four, with four being the highest score attainable. Scorers will count the number of settings and interactions documented across **ALL** of the evidence in all of the entries to determine a student's settings and interactions score. Note that according to the scoring rubric, collections of evidence cannot receive a score above a two unless there is evidence of interaction with peers without disabilities or community members.

The Relationship among Overall Student Performance, Independence and Settings and Interactions on the Alternate Assessment

The scoring rubric for Ohio's Alternate Assessment clearly shows how the performance domain and the instructional context domain are related to the total score received by a student. (Performance and instructional context scores are multiplied by each entry in the alternate assessment. The results of these multiplications are then totaled to equal a total student score). A fair question to ask is **why do we have to collect and document evidence in terms of independence and settings and interactions if they don't contribute to the total student score?**

The independence domain and the settings and interactions domain reflect research-based best practice for instructing students with significant disabilities. Ohio special education stakeholders identified these two factors as important components of instructional assessment for these children. Data from the 2003-2004 Ohio OGT alternate assessment indicate that these domains are highly correlated with student total score (see the table below). These data indicate moderate to strong positive correlations between the independence and settings and interactions domains and total scores received on the alternate assessment. **This means that COEs that receive higher independence and settings/interactions scores tended to also receive high student total scores.**

Correlations Among Total Scores and Independence and Settings and Interactions Domain Scores for the 2003-2004 Ohio Alternate Assessment for Students with Disabilities, Grade 10 (OGT)

Correlations	Total Mathematics Score	Total Reading Score
Independence	0.41	0.35
Settings and Interactions	0.55	0.53

(based on 949 assessments submitted).

Scoring Rubric

Scoring Criteria for the Alternate Assessment for Students with Disabilities, 2004-2005

Criteria for Student Achievement Score				
DOMAIN*	**Score 0**	**Score 1**	**Score 2**	**Score 3**
PERFORMANCE (scored for the entire entry)	There is evidence of no active performance of skill.	Student attempts the tasks, but there is evidence of minimal or limited skill.	Student performs the tasks with reasonable skill.	Student performs the tasks with consistent skill.
	Score 1	**Score 2**	**Score 3**	**Score 4**
INSTRUCTIONAL CONTEXT (scored for the entire entry)	Materials are not age-appropriate **and** tasks do not reflect a (simulated) real-world application.	Materials are age-appropriate **or** tasks reflect a (simulated) real-world application.	Materials are age-appropriate **and** tasks reflect a simulated real-world application.	Materials are age-appropriate **and** tasks reflect a real-world application.
Student Achievement Scores are Calculated by Multiplying Performance by Instructional Context for Each Entry				
Criteria for the Classroom Environment Scores				
DOMAIN*	**Score 1**	**Score 2**	**Score 3**	**Score 4**
INDEPENDENCE (scored for the entire entry)	Student performs tasks with continuous prompting.	Student performs tasks with frequent prompting.	Student performs tasks with limited prompting.	Student performs tasks without prompting.
SETTINGS AND INTERACTIONS (scored for the entire collection of evidence)	Student performs tasks in one setting with no evidence of interaction(s).	Student performs tasks in two different settings with evidence of interaction(s).	Student performs tasks in two different settings with evidence of interaction(s) with nondisabled peers and/or community.	Student performs tasks in three or more different settings with evidence of interaction(s) with nondisabled peers and/or community.

***DOMAIN DEFINITIONS:**
PERFORMANCE – The student's demonstration of skill while attempting given tasks through an active response. Each entry is scored for performance holistically.

INSTRUCTIONAL CONTEXT – The degree to which the tasks contain age-appropriate materials and reflect real-world applications. Each entry is scored for instructional context holistically.

INDEPENDENCE – The assistance provided to the student during performance of tasks. Each entry is scored for independence holistically.

SETTINGS AND INTERACTIONS – The observed settings or environments in which tasks are administered or performed. The entire collection of evidence is scored for settings and interactions

The following specific nonscorable codes will be reported.

Missing Entry (ME): The entry was not included in the collection of evidence. For grades three, four, six, eight and ten, each collection of evidence must contain four entries. For grades five and

seven each collection of evidence must contain two entries. Each entry consists of an entry sheet and at least two pieces of evidence that differ in type.

Entry Sheet (ES): The entry sheet is not completed correctly. Each section of the entry sheet must be filled out completely.

Not to Standard (NS): The entry is not linked to an appropriate Ohio Academic Content Standard, benchmark or indicator or to an application of standards-based knowledge/skill. The task or activity that the student performs must be linked to the standard, benchmark or indicator and, if applicable, to the application of the standards-based knowledge/skill that is indicated on the entry sheet.

Insufficient Evidence (IE): The entry contains insufficient evidence or the evidence does not demonstrate that the student performed a specified task or activity. Each entry must contain at least two pieces of evidence that differ in type and clearly show the student's performance in response to what the student was asked to do.

The Scoring Process for the Alternate Assessment

The procedures, techniques, and suggestions contained within the Alternate Assessment for Students with Disabilities Administration Manual have been established in such a way as to support a consistent methodology for the development of collections of evidence which accurately describe student performance. This manual is meant to provide a standardized framework within which the individualized achievement of students who participate in alternate assessment can be measured in a valid and reliable fashion.

Scoring the alternate assessments is a highly standardized and controlled process. The scoring process is built upon the procedures, policies and criteria outlined in this manual. As such, it is important that collections of evidence submitted for scoring are assembled in accordance with the guidelines and procedures detailed in this manual. It is also vital that the documentation and notations about the evidence be supported by the contents of the evidence itself. Scoring of collections of evidence relies upon a strong logical connection between the documentation about the evidence and the contents within the evidence. Test scoring contractors will receive, process, review and score collections of evidence according to scoring rules and guidelines approved by the Ohio Department of Education (ODE). These scoring rules and guidelines are based upon the following factors. First, the rubric which defines the specific criteria used to evaluate entries in the alternate assessment. The second factor is an in depth review of actual student evidence from the alternate assessment by Ohio special educators, who advise ODE and test contractors on the application and interpretation of the rubric in the context of authentic student evidence. This in depth review is known as the *rangefinding process*. The rangefinding process essentially "calibrates" the rubric used in scoring, and identifies "anchors" used to specifically exemplify each individual score point for each domain on the rubric. The end result of rangefinding is a set of scoring "exemplars" which are used to train and qualify raters who score the collections of evidence. The final factor in developing scoring guidelines is a review of the policies and procedures in this manual. These policies are reviewed by a committee of Ohio special educators who advise ODE and test contractors on the application of criteria that determine the specific conditions when collections of evidence may be judged nonscorable by test contractors.

Appendix C: Agenda

Ohio Alternate Assessment for Students with Disabilities
Standard Setting

Day 1: Thursday April 28, 2005

8:30 a.m.	Registration and continental breakfast
9:00	Welcome and introductions
9:15	Overview/orientation
10:15	Break
10:30	Practice session
Noon	Lunch
1:00 p.m.	Round 1
3:45	Wrap-up
4:00	Adjourn

Day 2: Friday April 29, 2005

8:30 a.m.	Continental breakfast
9:00	Discussion of Round 1
9:45	Round 2
11:30	Lunch
1:30 p.m.	Discussion of Round 2
3:00 p.m.	Round 3
4:45	Wrap-up
5:00	Adjourn

Day 3: Saturday April 30, 2005

8:30 a.m.	Continental breakfast
9:00	Review of Round 3
10:00	Round 4
Noon	Lunch
1:30 p.m.	Discussion of Round 4 and Final Recommendations
3:45	Wrap-up
4:00	Adjourn

Appendix D: Performance Level Descriptors by Content Area

Performance Level Descriptors for the Ohio Graduation Test Alternate Assessment for Students with Disabilities for English Language Arts

Advanced
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in English Language Arts with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect real-world activities.

Accelerated
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in English Language Arts with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Proficient
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in English Language Arts with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Basic
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in English Language Arts with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; or the student is performing tasks that reflect simulated real-world or real-world activities.

Limited
The Collection of Evidence does not indicate performance of appropriate tasks that access the 10th grade Ohio Academic Content Standards in English Language Arts at a basic level.

Performance Level Descriptors for the Ohio Graduation Tests Alternate Assessment for Students with Disabilities for Mathematics

Advanced
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Mathematics with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect real-world activities.

Accelerated
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Mathematics with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Proficient
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Mathematics with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Basic
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Mathematics with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; or the student is performing tasks that reflect simulated real-world or real-world activities.

Limited
The Collection of Evidence does not indicate performance of appropriate tasks that access the 10th grade Ohio Academic Content Standards in Mathematics at a basic level.

Performance Level Descriptors for the Ohio Graduation Tests Alternate Assessment for Students with Disabilities for Science

Advanced
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Science with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect real-world activities.

Accelerated
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Science with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Proficient
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Science with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Basic
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Science with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; or the student is performing tasks that reflect simulated real-world or real-world activities.

Limited
The Collection of Evidence does not indicate performance of appropriate tasks that access the 10th grade Ohio Academic Content Standards in Science at a basic level.

Performance Level Descriptors for the Ohio Graduation Tests Alternate Assessment for Students with Disabilities for Social Studies

Advanced
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Social Studies with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect real-world activities.

Accelerated
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Social Studies with consistent skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Proficient
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Social Studies with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; and the student is performing tasks that reflect simulated real-world activities.

Basic
The student is able to perform appropriate tasks that access the 10th grade Ohio Academic Content Standards in Social Studies with reasonable skill as supported by the Collection of Evidence. Given the student's individual needs, the student is using materials that are age-appropriate; or the student is performing tasks that reflect simulated real-world or real-world activities.

Limited
The Collection of Evidence does not indicate performance of appropriate tasks that access the 10th of grade-level Ohio Academic Content Standards in Social Studies at a basic level.

Appendix E: Readiness Form

Ohio Graduation Tests
Alternate Assessment for Students with Disabilities

Readiness Form

Rater Number_____

Practice Test: I have completed the practice test, and I understand what I need to do to complete Round 1.
(Circle one): **Yes** **No**

Round 1: I have discussed the results of Round 1, including my ratings, the ratings of others, and the impact data, and I understand what I need to do to complete Round 2
(Circle one): **No** **Yes**

Round 2: I have discussed the results of Round 2, including my ratings, the ratings of others, and the impact data, and I understand what I need to do to complete Round 3
(Circle one): **No** **Yes**

Round 3: I have discussed the results of Round 2, including my ratings, the ratings of others, and the impact data, and I understand what I need to do to complete Round 4
(Circle one): **No** **Yes**

Round 4: I have completed my ratings, and I believe that the cut scores I have identified fairly represent minimal performances of students at the Basic, Proficient, and Advanced levels
(Circle one): **No** **Yes**

Everyone was encouraged to share his or her ratings and hear those of other raters**.**
(Circle one): **No** **Yes**

The cut scores we recommended accurately reflect the basic, proficient, and advanced achievement levels.
(Circle one): **No** **Yes**

The process was fair and unbiased.
(Circle one): **No** **Yes**

Appendix F: Example Rating Sheet

ROUND #_____ RATER # _____

OGT Social Studies Alternate Assessment Standard Setting

Packet	Level	Packet	Level	Packet	Level
1		26		51	
2		27		52	
3		28		53	
4		29		54	
5		30		55	
6		31		56	
7		32		57	
8		33		58	
9		34		59	
10		35		60	
11		36		61	
12		37		62	
13		38		63	
14		39		64	
15		40		65	
16		41		66	
17		42			
18		43			
19		44			
20		45			
21		46			
22		47			
23		48			
24		49			
25		50			

Performance Levels:
1=Limited, 2=Basic, 3=Proficient, 4=Accelerated, 5=Advanced

Appendix G: Evaluation Form*

Ohio Graduation Tests
Standard Setting Workshop Evaluation

Please respond to the statements below by indicating your agreement or disagreement. Check one box for each statement to indicate whether you strongly agree, agree, disagree, or strongly disagree with each statement. Room for comments has been provided at the bottom of the form.

Alternate Assessment for Students with Disabilities

	Statement	Agree	Disagree
1	The workshop leaders clearly explained the purpose of the meeting.	11	
2	The workshop leaders clearly explained my task.	11	
3	The examples and exercises helped me understand how to perform my task.	11	
4	The large and small group discussions helped me understand the process.	10	1**
5	I was able to follow the instructions and complete the rating sheets accurately.	11	
6	The discussions after the first round of rating were helpful to me.	10	1**
7	The discussions after the second round of rating were helpful to me	10	1**
8	The information showing the distribution of student scores was helpful to me.	11	
9	The facilities and food service helped to create a good working environment.	11	

Comments

*The numbers in the tables show actual responses to the survey by panelists.

** It should be noted that this is the same panelists and this person did respond to the readiness form by stating that he or she understood the process and was comfortable proceeding at all stages of the process.

Appendix H: Results for All Judges All Rounds

Table H-1
Math Round 1 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	27	3			12			12
1	29	2		13				13
1	31	3			13			13
1	32	3			14			14
1	40	3			16			16
1	66	3			24			24
1	SUMMARY			13	14			
2	15	3			10			10
2	16	2		10				10
2	17	3			10			10
2	18	2		11				11
2	19	2		11				11
2	20	3			11			11
2	24	3			12			12
2	26	3			12			12
2	34	3			14			14
2	55	3			21			21
2	SUMMARY			11	12			
3	11	2		8				8
3	17	3			10			10
3	24	3			12			12
3	37	3			15			15
3	41	3			16			16
3	45	3			18			18
3	64	3			24			24
3	SUMMARY			8	15.5			
4	4	2		7				7
4	29	2		13				13
4	35	2		15				15
4	36	3			15			15
4	52	3			20			20
4	SUMMARY			13	17.5			
5	15	3			10			10
5	24	3			12			12
5	27	3			12			12
5	33	3			14			14
5	50	3			20			20
5	SUMMARY				12			
6	29	2		13				13
6	33	3			14			14
6	34	2		14				14

6	35	3			15			15
6	38	3			16			16
6	39	3			16			16
6	SUMMARY			13.5	15.5			
7	33	3			14			14
7	37	2		15				15
7	39	3			16			16
7	41	3			16			16
7	42	3			16			16
7	45	3			18			18
7	SUMMARY			15	16			
8	5	2		7				7
8	18	2		11				11
8	54	3			20			20
8	65	3			24			24
8	SUMMARY			9	22			
9	25	3			12			12
9	35	3			15			15
9	37	3			15			15
9	SUMMARY				15			
10	26	2		12				12
10	28	3			12			12
10	30	2		13				13
10	33	2		14				14
10	40	3			16			16
10	SUMMARY			13	14			
11	4	2		7				7
11	51	3			20			20
11	SUMMARY			7	20			
12	22	2		11				11
12	25	3			12			12
12	28	3			12			12
12	35	3			15			15
12	SUMMARY			11	12			
13	30	2		13				13
13	32	2		14				14
13	34	2		14				14
13	38	2		16				16
13	40	3			16			16
13	SUMMARY			14	16			

Table H-2
Math Round 1 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	13	14
2	SUMMARY	11	12
3	SUMMARY	8	15.5
4	SUMMARY	13	17.5
5	SUMMARY		12
6	SUMMARY	13.5	15.5
7	SUMMARY	15	16
8	SUMMARY	9	22
9	SUMMARY		15
10	SUMMARY	13	14
11	SUMMARY	7	20
12	SUMMARY	11	12
13	SUMMARY	14	16
	MEDIANS	13	15.5
	CUT	14.25	

Table H-3
Math Round 2 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	20	2		11				11
1	21	2		11				11
1	22	2		11				11
1	23	2		11				11
1	24	3			12			12
1	25	3			12			12
1	26	3			12			12
1	28	3			12			12
1	30	3			13			13
1	33	3			14			14
1	SUMMARY			11	12			
2	10	2		8				8
2	11	2		8				8
2	12	3			9			9
2	21	2		11				11
2	22	3			11			11
2	23	2		11				11
2	SUMMARY			9.5	10			
3	16	2		10				10
3	23	2		11				11
3	26	2		12				12
3	33	2		14				14
3	SUMMARY			11.5				
4	20	2		11				11
4	30	2		13				13
4	50	3			20			20
4	SUMMARY			12	20			
5	13	2		9				9
5	14	2		9				9
5	15	2		10				10
5	23	2		11				11
5	26	3			12			12
5	28	2		12				12
5	30	2		13				13
5	SUMMARY			10.5	12			
6	28	3			12			12
6	30	3			13			13
6	31	3			13			13
6	32	3			14			14
6	SUMMARY				13			
7	34	2		14				14
7	35	3			15			15
7	38	3			16			16
7	40	2		16				16

7	43	2		16				16
7	44	3			18			18
7	SUMMARY			16	16			
9	18	2		11				11
9	20	2		11				11
9	21	2		11				11
9	23	2		11				11
9	26	3			12			12
9	28	3			12			12
9	31	2		13				13
9	33	2		14				14
9	34	3			14			14
9	38	3			16			16
9	39	3			16			16
9	43	2		16				16
9	SUMMARY			11	14			
10	27	2		12				12
10	29	2		13				13
10	34	2		14				14
10	SUMMARY			13				
11	23	2		11				11
11	24	3			12			12
11	29	3			13			13
11	34	3			14			14
11	38	3			16			16
11	SUMMARY			11	13.5			
12	18	2		11				11
12	19	2		11				11
12	20	3			11			11
12	21	2		11				11
12	23	2		11				11
12	24	3			12			12
12	27	3			12			12
12	32	3			14			14
12	33	3			14			14
12	37	3			15			15
12	40	3			16			16
12	43	3			16			16
12	SUMMARY			11	14			
13	20	2		11				11
13	21	2		11				11
13	22	3			11			11
13	23	2		11				11
13	24	3			12			12
13	25	3			12			12
13	26	3			12			12
13	28	3			12			12
13	31	3			13			13
13	35	3			15			15

13	37	3			15			15
13	39	3			16			16
13	SUMMARY			11	12			
14	1	2		6				6
14	3	2		6				6
14	10	2		8				8
14	22	3			11			11
14	24	3			12			12
14	30	2		13				13
14	35	3			15			15
14	45	3			18			18
14	56	3			21			21
14	66	3			24			24
14	SUMMARY			7	16.5			

Table H-4
Math Round 2 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	11	12
2	SUMMARY	9.5	10
3	SUMMARY	11.5	
4	SUMMARY	12	20
5	SUMMARY	10.5	12
6	SUMMARY		13
7	SUMMARY	16	16
9	SUMMARY	11	14
10	SUMMARY	13	
11	SUMMARY	11	13.5
12	SUMMARY	11	14
13	SUMMARY	11	12
14	SUMMARY	7	16.5
	MEDIANS	11	13.5
	CUT	12.25	

Table H-5
Math Round 3 Judgements.

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	1	1	6					6
1	4	2		7				7
1	5	1	7					7
1	7	1	8					8
1	8	1	8					8
1	10	2		8				8
1	13	1	9					9
1	15	2		10				10
1	19	1	11					11
1	20	2		11				11
1	26	2		12				12
1	41	4				16		16
1	46	4				18		18
1	50	4				20		20
1	53	4				20		20
1	55	4				21		21
1	59	4				21		21
1	60	4				21		21
1	66	5					24	24
1	67	5						24
1	SUMMARY		8	10		20	24	
2	1	1	6					6
2	6	2		8				8
2	11	2		9				9
2	15	3			10			10
2	20	2		11				11
2	26	3			12			12
2	31	2		13				13
2	32	3			14			14
2	48	4				18		18
2	49	4				20		20
2	53	4				20		20
2	54	4				20		20
2	57	4				21		21
2	58	4				21		21
2	62	5					24	24
2	66	5					24	24
2	67	5						24
2	SUMMARY		6	10	12	20	24	
3	3	1	6					6
3	15	3			10			10
3	16	3			10			10
3	31	3			13			13
3	35	3			15			15

3	37	3			15			15
3	42	4				16		16
3	45	4				18		18
3	46	4				18		18
3	57	4				21		21
3	SUMMARY		6		13	18		
4	1	1	6					6
4	14	2		9				9
4	24	2		12				12
4	26	3			12			12
4	29	2		13				13
4	32	3			14			14
4	33	3			14			14
4	40	4				16		16
4	51	4				20		20
4	55	4				21		21
4	60	4				21		21
4	67	5						24
4	SUMMARY		6	12	14	20.5		
5	6	2		8				8
5	12	2		9				9
5	16	3			10			10
5	25	3			12			12
5	26	3			12			12
5	30	3			13			13
5	37	3			15			15
5	47	4				18		18
5	50	3			20			20
5	53	3			20			20
5	57	4				21		21
5	64	5					24	24
5	SUMMARY			8.5	13	19.5	24	
6	3	1	6					6
6	4	2		7				7
6	5	1	7					7
6	6	1	8					8
6	8	2		8				8
6	9	1	8					8
6	10	1	8					8
6	11	2		9				9
6	12	2		9				9
6	43	3			16			16
6	44	3			18			18
6	45	4				18		18
6	58	5					21	21
6	59	5					21	21
6	60	5					21	21
6	63	5					24	24
6	64	4				24		24

6	65	4				24		24
6	SUMMARY		8	8.5	17	24	21	
7	1	1	6					6
7	3	1	6					6
7	11	2		9				9
7	16	2		10				10
7	21	2		11				11
7	22	2		11				11
7	28	2		12				12
7	35	3			15			15
7	37	2		15				15
7	38	3			16			16
7	39	3			16			16
7	40	3			16			16
7	44	3			18			18
7	45	4				18		18
7	51	4				20		20
7	54	4				20		20
7	65	4				24		24
7	67	5						24
7	SUMMARY		6	11	16	20		
9	5	1	7					7
9	9	1	8					8
9	15	3			10			10
9	19	1	11					11
9	20	1	11					11
9	21	1	11					11
9	23	1	11					11
9	25	3			12			12
9	28	4				12		12
9	30	1	13					13
9	37	3			15			15
9	40	4				16		16
9	45	4				18		18
9	46	4				18		18
9	47	3			18			18
9	50	5					20	20
9	60	5					21	21
9	SUMMARY		11		13.5	17	20.5	
10	13	1	9					9
10	14	1	9					9
10	15	2		10				10
10	16	1	10					10
10	17	2		10				10
10	18	1	11					11
10	20	2		11				11
10	38	3			16			16
10	39	3			16			16
10	40	3			16			16

10	41	4				16		16
10	55	4				21		21
10	56	4				21		21
10	66	5					24	24
10	SUMMARY		9.5	10	16	21	24	
11	3	2		6				6
11	4	3			7			7
11	7	2		8				8
11	15	3			10			10
11	17	2		10				10
11	26	4				12		12
11	44	5					18	18
11	55	5					21	21
11	57	4				21		21
11	62	4				24		24
11	SUMMARY			8	8.5	21	19.5	
12	3	2		6				6
12	7	1	8					8
12	13	2		9				9
12	17	2		10				10
12	19	1	11					11
12	26	3			12			12
12	42	3			16			16
12	43	3			16			16
12	52	4				20		20
12	54	4				20		20
12	61	5					24	24
12	62	5					24	24
12	66	5					24	24
12	SUMMARY		9.5	9	16	20	24	
13	1	2		6				6
13	2	1	6					6
13	3	1	6					6
13	4	3			7			7
13	5	1	7					7
13	6	1	8					8
13	7	1	8					8
13	13	1	9					9
13	14	1	9					9
13	21	1	11					11
13	22	2		11				11
13	23	1	11					11
13	24	3			12			12
13	35	4				15		15
13	37	4				15		15
13	38	3			16			16
13	39	4				16		16
13	40	3			16			16
13	53	4				20		20

13	54	4				20		20
13	56	4				21		21
13	57	4				21		21
13	65	4				24		24
13	66	5					24	24
13	67	5						24
13	SUMMARY		8	8.5	14	20	24	
14	11	1	9					9
14	14	1	9					9
14	19	2		11				11
14	20	2		11				11
14	21	2		11				11
14	31	3			13			13
14	35	4				15		15
14	42	4				16		16
14	50	4				20		20
14	51	4				20		20
14	58	3			21			21
14	65	4				24		24
14	SUMMARY		9	11	17	20		

Table H-6
Math Round 3 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	8	10		20	24
2	SUMMARY	6	10	12	20	24
3	SUMMARY	6		13	18	
4	SUMMARY	6	12	14	20.5	
5	SUMMARY		8.5	13	19.5	24
6	SUMMARY	8	8.5	17	24	21
7	SUMMARY	6	11	16	20	
9	SUMMARY	11		13.5	17	20.5
10	SUMMARY	9.5	10	16	21	24
11	SUMMARY		8	8.5	21	19.5
12	SUMMARY	9.5	9	16	20	24
13	SUMMARY	8	8.5	14	20	24
14	SUMMARY	9	11	17	20	
	MEDIANS	8	10	14	20	24
		CUTS	9	12	17	22

Table H-7
Math Round 4 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	11	1	9					9
1	12	2		9				9
1	13	2		9				9
1	16	2		10				10
1	17	2		10				10
1	22	3			11			11
1	23	2		11				11
1	29	3			13			13
1	30	2		13				13
1	31	3			13			13
1	48	3			18			18
1	53	4				20		20
1	55	4				21		21
1	56	4				21		21
1	57	4				21		21
1	60	4				21		21
1	62	5					24	24
1	63	4				24		24
1	64	5					24	24
1	65	4				24		24
1	66	5					24	24
1	67	5						24
1	SUMMARY		9	10	13	21	24	
2	16	2		10				10
2	17	3			10			10
2	30	2		13				13
2	39	4				16		16
2	40	4				16		16
2	54	4				20		20
2	59	5					21	21
2	60	4				21		21
2	61	5					24	24
2	62	5					24	24
2	63	4				24		24
2	64	5					24	24
2	66	5					24	24
2	67	5						24
2	SUMMARY			11.5	10	20	24	
3	5	1	7					7
3	13	1	9					9
3	18	1	11					11
3	19	1	11					11
3	24	3			12			12
3	33	3			14			14

3	35	3			15			15
3	39	4				16		16
3	41	4				16		16
3	50	4				20		20
3	52	4				20		20
3	60	4				21		21
3	62	5					24	24
3	64	5					24	24
3	SUMMARY		10		14	20	24	
4	1	1	6					6
4	9	2		8				8
4	10	2		8				8
4	16	2		10				10
4	30	3			13			13
4	35	3			15			15
4	55	4				21		21
4	63	4				24		24
4	64	4				24		24
4	65	5					24	24
4	66	5					24	24
4	67	5						24
4	SUMMARY		6	8	14	24	24	
5	10	2		8				8
5	14	1	9					9
5	25	4				12		12
5	30	3			13			13
5	35	3			15			15
5	45	3			18			18
5	55	4				21		21
5	65	5					24	24
5	66	5					24	24
5	SUMMARY		9	8	15	16.5	24	
6	3	1	6					6
6	6	1	8					8
6	9	1	8					8
6	10	2		8				8
6	18	2		11				11
6	21	2		11				11
6	23	2		11				11
6	28	3			12			12
6	29	2		13				13
6	30	3			13			13
6	31	3			13			13
6	35	3			15			15
6	45	4				18		18
6	47	4				18		18
6	48	4				18		18
6	51	4				20		20
6	59	5					21	21

6	60	4				21		21
6	61	5					24	24
6	62	5					24	24
6	63	4				24		24
6	64	4				24		24
6	65	5					24	24
6	66	5					24	24
6	SUMMARY		8	11	13	20	24	
7	16	2		10				10
7	25	3			12			12
7	30	2		13				13
7	32	3			14			14
7	34	3			14			14
7	59	4				21		21
7	64	5					24	24
7	65	4				24		24
7	66	5					24	24
7	67	5						24
7	SUMMARY			11.5	14	22.5	24	
8	5	2		7				7
8	6	2		8				8
8	13	2		9				9
8	14	2		9				9
8	18	2		11				11
8	20	2		11				11
8	24	3			12			12
8	29	3			13			13
8	33	3			14			14
8	39	3			16			16
8	41	3			16			16
8	46	4				18		18
8	48	4				18		18
8	52	4				20		20
8	59	4				21		21
8	66	5					24	24
8	SUMMARY			9	14	19	24	
9	16	2		10				10
9	25	3			12			12
9	30	2		13				13
9	38	3			16			16
9	46	4				18		18
9	59	5					21	21
9	64	5					24	24
9	65	4				24		24
9	66	5					24	24
9	SUMMARY			11.5	14	21	24	
10	4	3			7			7
10	7	1	8					8
10	8	1	8					8

10	15	2		10				10
10	16	3			10			10
10	17	2		10				10
10	26	3			12			12
10	27	3			12			12
10	28	4				12		12
10	37	3			15			15
10	38	3			16			16
10	53	4				20		20
10	54	4				20		20
10	65	4				24		24
10	67	5						24
10	SUMMARY		8	10	12	20		
11	3	2		6				6
11	9	2		8				8
11	10	3			8			8
11	25	4				12		12
11	31	3			13			13
11	35	3			15			15
11	42	4				16		16
11	54	4				20		20
11	61	5					24	24
11	65	4				24		24
11	SUMMARY			7	13	18	24	
12	2	1	6					6
12	4	3			7			7
12	11	2		9				9
12	23	2		11				11
12	28	4				12		12
12	31	3			13			13
12	34	3			14			14
12	40	3			16			16
12	42	3			16			16
12	47	3			18			18
12	51	4				20		20
12	56	4				21		21
12	63	4				24		24
12	SUMMARY		6	10	15	20.5		
13	8	2		8				8
13	10	1	8					8
13	14	1	9					9
13	15	3			10			10
13	16	3			10			10
13	17	2		10				10
13	18	1	11					11
13	19	1	11					11
13	20	1	11					11
13	21	1	11					11
13	35	4				15		15

13	38	3			16			16
13	39	4				16		16
13	40	3			16			16
13	41	4				16		16
13	46	4				18		18
13	47	4				18		18
13	48	4				18		18
13	49	5					20	20
13	50	5					20	20
13	51	4				20		20
13	52	4				20		20
13	58	3			21			21
13	59	5					21	21
13	60	4				21		21
13	66	5					24	24
13	67	5						24
13	SUMMARY		11	9	16	18	20.5	

Table H-8
Math Round 4 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	9	10	13	21	24
2	SUMMARY		11.5	10	20	24
3	SUMMARY	10		14	20	24
4	SUMMARY	6	8	14	24	24
5	SUMMARY	9	8	15	16.5	24
6	SUMMARY	8	11	13	20	24
7	SUMMARY		11.5	14	22.5	24
8	SUMMARY		9	14	19	24
9	SUMMARY		11.5	14	21	24
10	SUMMARY	8	10	12	20	
11	SUMMARY		7	13	18	24
12	SUMMARY	6	10	15	20.5	
13	SUMMARY	11	9	16	18	20.5
	MEDIANS	8.5	10	14	20	24
	CUTS	9.25	12	17	22	

Table H-9
Science Round 1 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	29	3			13			13
1	31	2		14				14
1	32	3			14			14
1	33	2		15				15
1	34	2		15				15
1	35	3			15			15
1	40	3			16			16
1	SUMMARY			15	14.5			
2	1	2		6				6
2	2	2		6				6
2	3	3			6			6
2	14	3			9			9
2	15	3			9			9
2	16	3			10			10
2	24	3			12			12
2	25	3			12			12
2	27	3			13			13
2	28	2		13				13
2	30	3			14			14
2	37	3			16			16
2	SUMMARY			6	12			
3	6	2		7				7
3	9	2		8				8
3	18	3			10			10
3	26	3			12			12
3	43	3			18			18
3	49	3			20			20
3	57	3			21			21
3	SUMMARY			7.5	18			
4	24	2		12				12
4	54	3			21			21
4	55	3			21			21
4	64	3			24			24
4	SUMMARY			12	21			
5	8	2		8				8
5	14	2		9				9
5	22	2		11				11
5	26	3			12			12
5	34	3			15			15
5	38	3			16			16
5	51	3			20			20
5	53	3			20			20
5	66	3			24			24
5	SUMMARY			9	18			

6	29	3			13			13
6	31	2		14				14
6	33	2		15				15
6	34	2		15				15
6	35	3			15			15
6	36	3			16			16
6	SUMMARY			15	15			
7	25	2		12				12
7	28	2		13				13
7	32	2		14				14
7	34	2		15				15
7	39	3			16			16
7	43	3			18			18
7	SUMMARY			13.5	17			
8	6	2		7				7
8	11	2		8				8
8	19	3			11			11
8	28	2		13				13
8	36	3			16			16
8	39	3			16			16
8	59	3			21			21
8	SUMMARY			8	16			
9	23	2		11				11
9	26	2		12				12
9	27	3			13			13
9	28	2		13				13
9	30	3			14			14
9	32	3			14			14
9	35	3			15			15
9	SUMMARY			12	14			
10	28	2		13				13
10	30	2		14				14
10	32	2		14				14
10	33	3			15			15
10	40	3			16			16
10	49	3			20			20
10	SUMMARY			14	16			
11	10	2		8				8
11	19	2		11				11
11	41	3			16			16
11	58	2		21				21
11	SUMMARY			11	16			
12	28	2		13				13
12	30	3			14			14
12	33	3			15			15
12	34	3			15			15
12	SUMMARY			13	15			
13	8	2		8				8
13	10	2		8				8

13	19	3			11			11
13	20	3			11			11
13	27	3			13			13
13	29	3			13			13
13	31	3			14			14
13	32	2		14				14
13	33	3			15			15
13	38	3			16			16
13	42	3			18			18
13	43	3			18			18
13	53	3			20			20
13	55	3			21			21
13	SUMMARY			8	15			

Table H-10
Science Round 1 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	15	14.5
2	SUMMARY	6	12
3	SUMMARY	7.5	18
4	SUMMARY	12	21
5	SUMMARY	9	18
6	SUMMARY	15	15
7	SUMMARY	13.5	17
8	SUMMARY	8	16
9	SUMMARY	12	14
10	SUMMARY	14	16
11	SUMMARY	11	16
12	SUMMARY	13	15
13	SUMMARY	8	15
	MEDIANS	12	16
	CUT	14	

Table H-11
Science Round 2 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	26	2		12				12
1	27	2		13				13
1	28	2		13				13
1	30	3			14			14
1	36	3			16			16
1	37	3			16			16
1	SUMMARY			13	16			
2	5	2		7				7
2	6	2		7				7
2	12	3			8			8
2	13	3			9			9
2	26	3			12			12
2	29	3			13			13
2	SUMMARY			7	10.5			
3	16	2		10				10
3	17	2		10				10
3	19	2		11				11
3	20	2		11				11
3	22	2		11				11
3	25	2		12				12
3	34	3			15			15
3	36	3			16			16
3	SUMMARY			11	15.5			
4	16	2		10				10
4	25	2		12				12
4	34	3			15			15
4	36	2		16				16
4	42	3			18			18
4	62	3			24			24
4	SUMMARY			12	18			
5	25	2		12				12
5	27	2		13				13
5	28	2		13				13
5	29	3			13			13
5	30	3			14			14
5	SUMMARY			13	13.5			
6	26	2		12				12
6	27	2		13				13
6	28	2		13				13
6	30	2		14				14
6	32	2		14				14
6	39	3			16			16
6	40	3			16			16
6	43	3			18			18

6	SUMMARY			13	16			
7	31	2		14				14
7	33	2		15				15
7	35	3			15			15
7	37	3			16			16
7	38	3			16			16
7	SUMMARY			14.5	16			
9	25	2		12				12
9	31	3			14			14
9	33	3			15			15
9	34	3			15			15
9	36	3			16			16
9	38	3			16			16
9	SUMMARY			12	15			
10	29	2		13				13
10	31	3			14			14
10	34	3			15			15
10	35	3			15			15
10	37	3			16			16
10	38	3			16			16
10	SUMMARY			13	15			
11	17	3			10			10
11	31	2		14				14
11	32	2		14				14
11	SUMMARY			14	10			
12	18	2		10				10
12	22	2		11				11
12	23	2		11				11
12	24	3			12			12
12	26	3			12			12
12	27	2		13				13
12	29	3			13			13
12	36	3			16			16
12	SUMMARY			11	12.5			
13	21	2		11				11
13	22	2		11				11
13	23	2		11				11
13	24	3			12			12
13	25	3			12			12
13	26	3			12			12
13	28	2		13				13
13	30	3			14			14
13	36	3			16			16
13	SUMMARY			11	12			
14	25	2		12				12
14	28	2		13				13
14	35	3			15			15
14	37	3			16			16
14	40	2		16				16

14	41	2		16				16
14	42	3			18			18
14	SUMMARY			14.5	16			

Table H-12
Science Round 2 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	13	16
2	SUMMARY	7	10.5
3	SUMMARY	11	15.5
4	SUMMARY	12	18
5	SUMMARY	13	13.5
6	SUMMARY	13	16
7	SUMMARY	14.5	16
9	SUMMARY	12	15
10	SUMMARY	13	15
11	SUMMARY	14	10
12	SUMMARY	11	12.5
13	SUMMARY	11	12
14	SUMMARY	14.5	16
	MEDIANS	13	15
	CUT	14	

Table H-13
Science Round 3 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	2	1	6					6
1	3	1	6					6
1	6	1	7					7
1	15	1	9					9
1	17	1	10					10
1	18	2		10				10
1	21	1	11					11
1	23	1	11					11
1	25	2		12				12
1	28	2		13				13
1	33	4				15		15
1	39	3			16			16
1	49	4				20		20
1	58	3			21			21
1	60	4				24		24
1	64	4				24		24
1	65	4				24		24
1	SUMMARY		9	12	18.5	24		
2	1	1	6					6
2	13	3			9			9
2	20	3			11			11
2	25	2		12				12
2	30	3			14			14
2	31	3			14			14
2	36	3			16			16
2	42	4				18		18
2	44	4				18		18
2	55	5					21	21
2	58	3			21			21
2	63	4				24		24
2	SUMMARY		6	12	14	18	21	
3	5	1	7					7
3	11	1	8					8
3	15	2		9				9
3	25	2		12				12
3	28	2		13				13
3	48	4				20		20
3	52	4				20		20
3	62	5					24	24
3	66	3			24			24
3	SUMMARY		7.5	12	24	20	24	
4	6	1	7					7
4	11	1	8					8
4	17	1	10					10

4	18	2		10				10
4	19	2		11				11
4	23	2		11				11
4	31	2		14				14
4	46	3			18			18
4	49	3			20			20
4	51	4				20		20
4	56	4				21		21
4	64	5					24	24
4	65	4				24		24
4	66	4				24		24
4	SUMMARY		8	11	19	22.5	24	
5	2	1	6					6
5	5	2		7				7
5	11	2		8				8
5	14	3			9			9
5	23	3			11			11
5	29	3			13			13
5	33	4				15		15
5	36	4				16		16
5	45	4				18		18
5	50	4				20		20
5	57	4				21		21
5	60	4				24		24
5	SUMMARY		6	7.5	11	19		
6	6	1	7					7
6	7	1	8					8
6	10	1	8					8
6	13	2		9				9
6	20	1	11					11
6	21	2		11				11
6	25	2		12				12
6	37	3			16			16
6	39	3			16			16
6	40	4				16		16
6	43	4				18		18
6	51	4				20		20
6	57	4				21		21
6	60	4				24		24
6	62	5					24	24
6	SUMMARY		8	11	16	20	24	
7	4	1	7					7
7	5	1	7					7
7	11	1	8					8
7	12	1	8					8
7	14	2		9				9
7	22	2		11				11
7	23	2		11				11
7	50	3			20			20

7	52	4				20		20
7	54	4				21		21
7	60	4				24		24
7	61	4				24		24
7	66	4				24		24
7	SUMMARY		7.5	11	20	24		
9	8	1	8					8
9	10	1	8					8
9	13	2		9				9
9	14	1	9					9
9	15	2		9				9
9	20	2		11				11
9	27	2		13				13
9	29	3			13			13
9	33	4				15		15
9	43	4				18		18
9	48	4				20		20
9	53	4				20		20
9	58	5					21	21
9	62	5					24	24
9	63	5					24	24
9	SUMMARY		8	10	13	19	24	
10	17	2		10				10
10	18	3			10			10
10	19	2		11				11
10	20	2		11				11
10	21	2		11				11
10	22	1	11					11
10	23	2		11				11
10	24	3			12			12
10	37	3			16			16
10	38	3			16			16
10	39	3			16			16
10	40	4				16		16
10	41	3			16			16
10	42	4				18		18
10	62	5					24	24
10	SUMMARY		11	11	16	17	24	
11	2	2		6				6
11	16	1	10					10
11	19	2		11				11
11	23	3			11			11
11	50	3			20			20
11	62	5					24	24
11	66	3			24			24
11	SUMMARY		10	8.5	20		24	
12	2	1	6					6
12	5	1	7					7
12	8	2		8				8

12	14	3			9			9
12	20	3			11			11
12	25	2		12				12
12	28	2		13				13
12	29	3			13			13
12	31	3			14			14
12	34	4				15		15
12	40	4				16		16
12	43	4				18		18
12	50	4				20		20
12	57	5					21	21
12	63	5					24	24
12	SUMMARY		6.5	12	12	17	22.5	
13	14	3			9			9
13	15	1	9					9
13	16	3			10			10
13	17	1	10					10
13	18	1	10					10
13	25	1	12					12
13	26	4				12		12
13	27	2		13				13
13	29	4				13		13
13	33	4				15		15
13	34	3			15			15
13	35	4				15		15
13	36	3			16			16
13	37	3			16			16
13	38	4				16		16
13	SUMMARY		10	13	15	15		
14	6	1	7					7
14	10	1	8					8
14	13	2		9				9
14	24	3			12			12
14	28	2		13				13
14	34	3			15			15
14	44	3			18			18
14	46	3			18			18
14	51	4				20		20
14	59	4				21		21
14	63	4				24		24
14	SUMMARY		7.5	11	16.5	21		

Table H-14
Science Round 3 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	9	12	18.5	24	
2	SUMMARY	6	12	14	18	21
3	SUMMARY	7.5	12	24	20	24
4	SUMMARY	8	11	19	22.5	24
5	SUMMARY	6	7.5	11	19	
6	SUMMARY	8	11	16	20	24
7	SUMMARY	7.5	11	20	24	
9	SUMMARY	8	10	13	19	24
10	SUMMARY	11	11	16	17	24
11	SUMMARY	10	8.5	20		24
12	SUMMARY	6.5	12	12	17	22.5
13	SUMMARY	10	13	15	15	
14	SUMMARY	7.5	11	16.5	21	
	MEDIANS	8.0	11.0	16.0	19.5	24.0
		CUTS	9.50	13.50	17.75	21.75

Table H-15
Science Round 4 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	2	1	6					6
1	3	1	6					6
1	4	1	7					7
1	5	1	7					7
1	6	1	7					7
1	16	2		10				10
1	17	1	10					10
1	18	2		10				10
1	23	2		11				11
1	26	3			12			12
1	27	2		13				13
1	28	2		13				13
1	29	3			13			13
1	30	3			14			14
1	54	4				21		21
1	56	4				21		21
1	57	4				21		21
1	58	4				21		21
1	59	4				21		21
1	60	4				24		24
1	SUMMARY		7	11	13	21		
2	13	2		9				9
2	18	2		10				10
2	23	1	11					11
2	26	3			12			12
2	27	2		13				13
2	28	2		13				13
2	29	3			13			13
2	40	4				16		16
2	53	4				20		20
2	58	4				21		21
2	59	5					21	21
2	60	5					24	24
2	61	4				24		24
2	66	5					24	24
2	SUMMARY		11	11.5	12.5	20.5	24	
3	11	1	8					8
3	14	1	9					9
3	15	2		9				9
3	19	2		11				11
3	26	2		12				12
3	28	2		13				13
3	33	3			15			15
3	35	4				15		15

3	36	4				16		16
3	41	4				16		16
3	64	5					24	24
3	SUMMARY		8.5	11.5	15	16	24	
4	3	1	6					6
4	8	0						8
4	10	1	8					8
4	21	2		11				11
4	23	2		11				11
4	28	2		13				13
4	32	3			14			14
4	40	4				16		16
4	44	4				18		18
4	61	5					24	24
4	SUMMARY		7	11	14	17	24	
5	10	1	8					8
5	17	3			10			10
5	19	3			11			11
5	27	2		13				13
5	29	3			13			13
5	33	3			15			15
5	34	3			15			15
5	38	4				16		16
5	40	4				16		16
5	42	4				18		18
5	48	3			20			20
5	52	5					20	20
5	57	5					21	21
5	SUMMARY		8	13	14	16	20.5	
6	3	1	6					6
6	5	1	7					7
6	9	1	8					8
6	10	1	8					8
6	14	2		9				9
6	15	2		9				9
6	17	2		10				10
6	19	2		11				11
6	23	1	11					11
6	24	2		12				12
6	25	2		12				12
6	26	2		12				12
6	28	2		13				13
6	29	3			13			13
6	35	3			15			15
6	37	4				16		16
6	39	3			16			16
6	45	3			18			18
6	46	3			18			18
6	48	4				20		20

6	50	3			20			20
6	51	4				20		20
6	56	4				21		21
6	62	5					24	24
6	64	5					24	24
6	65	5					24	24
6	SUMMARY		8	11.5	17	20	24	
7	13	2		9				9
7	18	2		10				10
7	26	3			12			12
7	28	2		13				13
7	58	4				21		21
7	60	4				24		24
7	61	4				24		24
7	62	4				24		24
7	63	4				24		24
7	65	5					24	24
7	66	4				24		24
7	SUMMARY			10	12	24	24	
8	5	2		7				7
8	8	2		8				8
8	13	3			9			9
8	16	3			10			10
8	20	3			11			11
8	34	3			15			15
8	40	4				16		16
8	52	4				20		20
8	57	4				21		21
8	62	5					24	24
8	SUMMARY			7.5	10.5	20	24	
9	8	1	8					8
9	13	2		9				9
9	18	2		10				10
9	23	1	11					11
9	26	2		12				12
9	32	3			14			14
9	40	4				16		16
9	62	5					24	24
9	65	5					24	24
9	66	4				24		24
9	SUMMARY		9.5	10	14	20	24	
10	2	1	6					6
10	3	1	6					6
10	4	1	7					7
10	9	1	8					8
10	10	1	8					8
10	11	1	8					8
10	17	2		10				10
10	18	2		10				10

10	19	2		11				11
10	33	3			15			15
10	34	3			15			15
10	35	3			15			15
10	43	4				18		18
10	44	4				18		18
10	59	4				21		21
10	60	4				24		24
10	SUMMARY		7.5	10	15	19.5		
11	19	3			11			11
11	20	2		11				11
11	21	3			11			11
11	22	2		11				11
11	34	4				15		15
11	40	4				16		16
11	53	4				20		20
11	54	4				21		21
11	SUMMARY			11	11	18		
12	1	1	6					6
12	2	1	6					6
12	3	1	6					6
12	7	2		8				8
12	12	3			8			8
12	16	3			10			10
12	17	3			10			10
12	25	3			12			12
12	37	3			16			16
12	39	3			16			16
12	42	4				18		18
12	48	4				20		20
12	53	4				20		20
12	58	4				21		21
12	62	5					24	24
12	63	4				24		24
12	SUMMARY		6	8	11	20	24	
13	1	1	6					6
13	7	1	8					8
13	8	1	8					8
13	9	1	8					8
13	10	1	8					8
13	11	1	8					8
13	12	1	8					8
13	13	3			9			9
13	14	3			9			9
13	15	3			9			9
13	50	3			20			20
13	51	3			20			20
13	52	4				20		20
13	54	4				21		21

13	55	4				21		21
13	62	5					24	24
13	63	4				24		24
13	64	5					24	24
13	65	5					24	24
13	66	3			24			24
13	SUMMARY		8		14.5	21	24	

Table H-16
Science Round 4 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	7	11	13	21	
2	SUMMARY	11	11.5	12.5	20.5	24
3	SUMMARY	8.5	11.5	15	16	24
4	SUMMARY	7	11	14	17	24
5	SUMMARY	8	13	14	16	20.5
6	SUMMARY	8	11.5	17	20	24
7	SUMMARY		10	12	24	24
8	SUMMARY		7.5	10.5	20	24
9	SUMMARY	9.5	10	14	20	24
10	SUMMARY	7.5	10	15	19.5	
11	SUMMARY		11	11	18	
12	SUMMARY	6	8	11	20	24
13	SUMMARY	8		14.5	21	24
	MEDIANS	8	11	14	20	24
	CUTS	9.5	12.5	17	22	

Table H-17
Social Studies Round 1 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	28	3			12			12
1	32	2		14				14
1	46	3			18			18
1	SUMMARY			14	15			
2	10	2		8				8
2	11	2		8				8
2	20	2		11				11
2	23	3			11			11
2	24	2		11				11
2	27	2		12				12
2	28	3			12			12
2	29	3			13			13
2	33	3			14			14
2	36	3			15			15
2	SUMMARY			11	13			
3	1	2		6				6
3	9	2		8				8
3	22	2		11				11
3	26	3			12			12
3	35	3			15			15
3	50	3			20			20
3	SUMMARY			8	15			
4	11	2		8				8
4	18	2		10				10
4	38	3			16			16
4	42	3			16			16
4	58	3			21			21
4	SUMMARY			9	16			
5	15	2		9				9
5	37	3			15			15
5	50	3			20			20
5	SUMMARY			9	17.5			
6	25	2		11				11
6	31	2		13				13
6	32	2		14				14
6	33	2		14				14
6	SUMMARY			13.5				
7	30	2		13				13
7	34	2		14				14
7	37	2		15				15
7	39	2		16				16
7	SUMMARY			14.5				
8	9	2		8				8
8	15	2		9				9

8	30	3			13			13
8	35	2		15				15
8	55	3			20			20
8	61	3			21			21
8	SUMMARY			9	20			
9	22	2		11				11
9	25	2		11				11
9	31	2		13				13
9	32	2		14				14
9	33	2		14				14
9	34	3			14			14
9	35	3			15			15
9	37	3			15			15
9	SUMMARY			13	15			
10	15	2		9				9
10	20	2		11				11
10	26	3			12			12
10	30	3			13			13
10	36	3			15			15
10	40	3			16			16
10	45	3			18			18
10	SUMMARY			10	15			
11	35	2		15				15
11	48	3			18			18
11	66	3			24			24
11	SUMMARY			15	21			
12	18	2		10				10
12	21	2		11				11
12	27	2		12				12
12	34	3			14			14
12	38	3			16			16
12	39	2		16				16
12	SUMMARY			11.5	15			
13	10	2		8				8
13	12	2		8				8
13	14	3			9			9
13	18	2		10				10
13	26	3			12			12
13	32	3			14			14
13	40	2		16				16
13	42	3			16			16
13	SUMMARY			9	13			

Table H-18
Social Studies Round 1 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	14	15
2	SUMMARY	11	13
3	SUMMARY	8	15
4	SUMMARY	9	16
5	SUMMARY	9	17.5
6	SUMMARY	13.5	
7	SUMMARY	14.5	
8	SUMMARY	9	20
9	SUMMARY	13	15
10	SUMMARY	10	15
11	SUMMARY	15	21
12	SUMMARY	11.5	15
13	SUMMARY	9	13
	MEDIANS	11	15
	CUT	13	

Table H-19
Social Studies Round 2 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	19	2		10				10
1	20	2		11				11
1	23	2		11				11
1	24	2		11				11
1	25	2		11				11
1	27	2		12				12
1	29	3			13			13
1	33	3			14			14
1	SUMMARY			11	13.5			
2	16	3			9			9
2	17	2		10				10
2	18	2		10				10
2	19	2		10				10
2	21	3			11			11
2	22	3			11			11
2	26	3			12			12
2	SUMMARY			10	11			
3	23	2		11				11
3	24	2		11				11
3	25	2		11				11
3	29	3			13			13
3	30	3			13			13
3	SUMMARY			11	13			
4	3	2		6				6
4	29	3			13			13
4	34	2		14				14
4	39	2		16				16
4	40	3			16			16
4	50	3			20			20
4	SUMMARY			14	16			
5	28	3			12			12
5	30	2		13				13
5	32	3			14			14
5	36	3			15			15
5	38	3			16			16
5	SUMMARY			13	14.5			
6	19	2		10				10
6	26	2		12				12
6	27	2		12				12
6	28	2		12				12
6	29	3			13			13
6	30	3			13			13
6	34	3			14			14
6	35	3			15			15

6	36	3			15			15
6	SUMMARY			12	14			
7	33	2		14				14
7	35	2		15				15
7	36	2		15				15
7	38	3			16			16
7	44	3			16			16
7	SUMMARY			15	16			
9	27	2		12				12
9	29	3			13			13
9	30	2		13				13
9	36	3			15			15
9	38	3			16			16
9	39	3			16			16
9	40	2		16				16
9	42	2		16				16
9	SUMMARY			14.5	15.5			
10	25	2		11				11
10	27	2		12				12
10	28	2		12				12
10	29	3			13			13
10	32	2		14				14
10	SUMMARY			12	13			
11	5	2		7				7
11	8	2		8				8
11	26	3			12			12
11	33	2		14				14
11	SUMMARY			8	12			
12	23	2		11				11
12	28	3			12			12
12	29	3			13			13
12	30	3			13			13
12	32	2		14				14
12	45	3			18			18
12	SUMMARY			12.5	13			
13	19	3			10			10
13	20	2		11				11
13	23	3			11			11
13	24	2		11				11
13	25	2		11				11
13	27	2		12				12
13	28	3			12			12
13	29	3			13			13
13	33	3			14			14
13	SUMMARY			11	12			
14	21	2		11				11
14	34	3			14			14
14	37	3			15			15
14	40	2		16				16

14	43	3			16			16
14	SUMMARY			13.5	15			

Table H-20
Social Studies Round 2 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	11	13.5
2	SUMMARY	10	11
3	SUMMARY	11	13
4	SUMMARY	14	16
5	SUMMARY	13	14.5
6	SUMMARY	12	14
7	SUMMARY	15	16
9	SUMMARY	14.5	15.5
10	SUMMARY	12	13
11	SUMMARY	8	12
12	SUMMARY	12.5	13
13	SUMMARY	11	12
14	SUMMARY	13.5	15
	MEDIANS	12	13.5
	CUT	12.75	

Table H-21
Social Studies Round 3 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	3	1	6					6
1	7	1	7					7
1	14	3			9			9
1	18	2		10				10
1	26	4				12		12
1	35	3			15			15
1	36	3			15			15
1	45	4				18		18
1	50	4				20		20
1	60	4				21		21
1	62	4				24		24
1	64	4				24		24
1	65	4				24		24
1	66	4				24		24
1	SUMMARY		6.5	10	15	22.5		
2	1	1	6					6
2	2	1	6					6
2	5	2		7				7
2	10	1	8					8
2	14	3			9			9
2	19	2		10				10
2	20	2		11				11
2	29	3			13			13
2	32	3			14			14
2	37	3			15			15
2	40	4				16		16
2	47	4				18		18
2	56	5					21	21
2	63	5					24	24
2	SUMMARY		6	10	13.5	17	22.5	
3	6	1	7					7
3	15	1	9					9
3	19	1	10					10
3	20	1	11					11
3	22	1	11					11
3	23	2		11				11
3	24	1	11					11
3	35	3			15			15
3	45	4				18		18
3	50	4				20		20
3	62	5					24	24
3	65	5					24	24
3	SUMMARY		10.5	11	15	19	24	
4	1	1	6					6

4	4	1	7					7
4	8	1	8					8
4	12	1	8					8
4	15	2		9				9
4	22	2		11				11
4	23	2		11				11
4	30	3			13			13
4	39	3			16			16
4	43	3			16			16
4	48	4				18		18
4	53	4				20		20
4	55	4				20		20
4	60	4				21		21
4	64	5					24	24
4	65	4				24		24
4	66	4				24		24
4	SUMMARY		7.5	11	16	20.5	24	
5	8	2		8				8
5	10	1	8					8
5	11	1	8					8
5	14	3			9			9
5	16	3			9			9
5	17	1	10					10
5	20	3			11			11
5	22	3			11			11
5	29	3			13			13
5	32	4				14		14
5	33	3			14			14
5	43	3			16			16
5	52	4				20		20
5	55	5					20	20
5	63	5					24	24
5	SUMMARY		8	8	11	17	22	
6	4	1	7					7
6	5	1	7					7
6	7	1	7					7
6	10	1	8					8
6	12	1	8					8
6	13	1	8					8
6	14	2		9				9
6	19	1	10					10
6	22	2		11				11
6	25	1	11					11
6	38	4				16		16
6	42	3			16			16
6	44	3			16			16
6	48	4				18		18
6	52	4				20		20
6	55	5					20	20

6	57	4				21		21
6	58	4				21		21
6	63	5					24	24
6	SUMMARY		8	10	16	20	22	
7	3	1	6					6
7	4	1	7					7
7	6	1	7					7
7	11	1	8					8
7	14	3			9			9
7	17	2		10				10
7	43	4				16		16
7	48	4				18		18
7	55	4				20		20
7	57	4				21		21
7	60	4				21		21
7	62	4				24		24
7	65	4				24		24
7	66	4				24		24
7	SUMMARY		7	10	9	21		
9	5	1	7					7
9	10	1	8					8
9	16	1	9					9
9	20	1	11					11
9	21	1	11					11
9	22	1	11					11
9	23	3			11			11
9	24	1	11					11
9	25	2		11				11
9	28	2		12				12
9	35	4				15		15
9	44	3			16			16
9	45	4				18		18
9	50	3			20			20
9	51	4				20		20
9	55	5					20	20
9	62	5					24	24
9	66	5					24	24
9	SUMMARY		11	11.5	16	18	24	
10	4	1	7					7
10	5	1	7					7
10	6	1	7					7
10	7	1	7					7
10	15	1	9					9
10	17	1	10					10
10	18	2		10				10
10	19	2		10				10
10	26	3			12			12
10	27	3			12			12
10	28	3			12			12

10	35	3			15			15
10	45	4				18		18
10	46	4				18		18
10	47	4				18		18
10	48	4				18		18
10	61	4				21		21
10	62	4				24		24
10	65	5					24	24
10	SUMMARY		7	10	12	18	24	
11	1	2		6				6
11	6	2		7				7
11	14	3			9			9
11	27	2		12				12
11	34	4				14		14
11	59	4				21		21
11	66	5					24	24
11	SUMMARY			7	9	17.5	24	
12	6	1	7					7
12	9	2		8				8
12	11	1	8					8
12	15	2		9				9
12	18	3			10			10
12	20	1	11					11
12	24	1	11					11
12	26	4				12		12
12	27	2		12				12
12	29	4				13		13
12	30	3			13			13
12	37	2		15				15
12	39	3			16			16
12	43	3			16			16
12	47	4				18		18
12	53	4				20		20
12	60	5					21	21
12	66	5					24	24
12	SUMMARY		9.5	10.5	14.5	15.5	22.5	
13	17	1	10					10
13	18	3			10			10
13	19	2		10				10
13	20	1	11					11
13	21	1	11					11
13	22	1	11					11
13	24	1	11					11
13	25	1	11					11
13	26	4				12		12
13	27	1	12					12
13	28	3			12			12
13	29	4				13		13
13	32	4				14		14

13	33	2		14				14
13	34	3			14			14
13	35	4				15		15
13	36	4				15		15
13	37	4				15		15
13	56	4				21		21
13	57	4				21		21
13	SUMMARY		11	12	12	15		

Table H-22
Social Studies Round 3 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	6.5	10	15	22.5	
2	SUMMARY	6	10	13.5	17	22.5
3	SUMMARY	10.5	11	15	19	24
4	SUMMARY	7.5	11	16	20.5	24
5	SUMMARY	8	8	11	17	22
6	SUMMARY	8	10	16	20	22
7	SUMMARY	7	10	9	21	
9	SUMMARY	11	11.5	16	18	24
10	SUMMARY	7	10	12	18	24
11	SUMMARY		7	9	17.5	24
12	SUMMARY	9.5	10.5	14.5	15.5	22.5
13	SUMMARY	11	12	12	15	
14	SUMMARY					
	MEDIANS	8	10	14	18	24
		CUTS	9	12	16	21

Table H-23
Social Studies Round 4 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	1	1	6					6
1	2	1	6					6
1	3	1	6					6
1	4	1	7					7
1	20	2		11				11
1	21	2		11				11
1	22	2		11				11
1	23	2		11				11
1	30	2		13				13
1	39	3			16			16
1	44	4				16		16
1	46	4				18		18
1	47	4				18		18
1	56	5					21	21
1	57	5					21	21
1	SUMMARY		6	11	16	18	21	
2	10	1	8					8
2	27	2		12				12
2	28	3			12			12
2	29	3			13			13
2	30	3			13			13
2	32	3			14			14
2	33	3			14			14
2	35	3			15			15
2	42	3			16			16
2	44	4				16		16
2	47	4				18		18
2	56	5					21	21
2	58	4				21		21
2	59	5					21	21
2	65	4				24		24
2	SUMMARY		8	12	14	19.5	21	
3	8	1	8					8
3	9	1	8					8
3	12	1	8					8
3	19	2		10				10
3	23	2		11				11
3	24	2		11				11
3	30	3			13			13
3	32	3			14			14
3	38	3			16			16
3	47	4				18		18
3	60	4				21		21
3	SUMMARY		8	11	14	19.5		

4	1	1	6					6
4	8	1	8					8
4	19	2		10				10
4	35	3			15			15
4	36	3			15			15
4	56	4				21		21
4	62	5					24	24
4	SUMMARY		7	10	15	21	24	
5	5	3			7			7
5	10	1	8					8
5	11	1	8					8
5	12	3			8			8
5	13	2		8				8
5	15	3			9			9
5	18	3			10			10
5	23	2		11				11
5	28	3			12			12
5	32	4				14		14
5	39	4				16		16
5	46	5					18	18
5	55	5					20	20
5	57	5					21	21
5	60	4				21		21
5	SUMMARY		8	9.5	9	16	20	
6	10	1	8					8
6	11	1	8					8
6	12	1	8					8
6	13	1	8					8
6	15	2		9				9
6	18	2		10				10
6	22	2		11				11
6	23	2		11				11
6	26	2		12				12
6	37	3			15			15
6	38	3			16			16
6	50	4				20		20
6	51	4				20		20
6	52	4				20		20
6	53	4				20		20
6	55	5					20	20
6	57	5					21	21
6	59	5					21	21
6	SUMMARY		8	11	15.5	20	21	
7	14	2		9				9
7	16	2		9				9
7	28	2		12				12
7	29	2		13				13
7	30	3			13			13
7	34	3			14			14

7	35	3			15			15
7	36	3			15			15
7	47	4				18		18
7	57	5					21	21
7	60	4				21		21
7	61	4				21		21
7	62	4				24		24
7	63	4				24		24
7	64	4				24		24
7	65	4				24		24
7	66	4				24		24
7	SUMMARY			10.5	14.5	24	21	
8	6	2		7				7
8	11	2		8				8
8	14	2		9				9
8	18	3			10			10
8	20	3			11			11
8	29	3			13			13
8	39	3			16			16
8	46	4				18		18
8	52	4				20		20
8	53	4				20		20
8	61	4				21		21
8	64	4				24		24
8	SUMMARY			8	12	20		
9	10	1	8					8
9	12	1	8					8
9	14	2		9				9
9	16	2		9				9
9	19	2		10				10
9	28	2		12				12
9	32	2		14				14
9	34	3			14			14
9	37	2		15				15
9	42	2		16				16
9	43	4				16		16
9	47	4				18		18
9	52	4				20		20
9	57	5					21	21
9	59	5					21	21
9	SUMMARY		8	12	14	18	21	
10	16	2		9				9
10	17	1	10					10
10	18	3			10			10
10	21	2		11				11
10	22	2		11				11
10	34	3			14			14
10	35	4				15		15
10	36	3			15			15

10	49	4				18		18
10	50	4				20		20
10	51	5					20	20
10	SUMMARY		10	11	14	18	20	
11	11	1	8					8
11	13	1	8					8
11	14	3			9			9
11	15	3			9			9
11	16	2		9				9
11	52	4				20		20
11	53	4				20		20
11	58	4				21		21
11	59	3			21			21
11	SUMMARY		8	9	9	20		
12	2	1	6					6
12	3	1	6					6
12	4	1	7					7
12	7	1	7					7
12	13	2		8				8
12	15	2		9				9
12	26	3			12			12
12	28	3			12			12
12	29	3			13			13
12	45	4				18		18
12	47	4				18		18
12	48	3			18			18
12	54	5					20	20
12	62	4				24		24
12	65	4				24		24
12	SUMMARY		6.5	8.5	12.5	21	20	
13	1	1	6					6
13	2	1	6					6
13	3	1	6					6
13	4	1	7					7
13	5	1	7					7
13	6	1	7					7
13	7	1	7					7
13	8	1	8					8
13	9	2		8				8
13	10	1	8					8
13	11	1	8					8
13	12	1	8					8
13	13	1	8					8
13	14	3			9			9
13	49	4				18		18
13	50	3			20			20
13	51	4				20		20
13	52	4				20		20
13	53	4				20		20

13	54	5					20	20
13	58	4				21		21
13	59	4				21		21
13	60	4				21		21
13	61	4				21		21
13	62	4				24		24
13	63	4				24		24
13	64	5					24	24
13	65	4				24		24
13	66	4				24		24
13	SUMMARY		7	8	14.5	21	22	

Table H-24
Social Studies Round 4 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	6	11	16	18	21
2	SUMMARY	8	12	14	19.5	21
3	SUMMARY	8	11	14	19.5	
4	SUMMARY	7	10	15	21	24
5	SUMMARY	6	9.5	9	16	20
6	SUMMARY	8	11	15.5	20	21
7	SUMMARY		10.5	14.5	24	21
8	SUMMARY		8	12	20	
9	SUMMARY	8	12	14	18	21
10	SUMMARY	10	11	14	18	20
11	SUMMARY	8	9	9	20	
12	SUMMARY	6.5	8.5	12.5	21	20
13	SUMMARY	7	8	14.5	21	22
	MEDIANS	8	10.5	14	20	21
	CUTS	9.25	12.25	17	20.5	

Table H-25
ELA Round 1 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	11	2		8				8
1	24	2		11				11
1	25	2		12				12
1	27	3			12			12
1	28	3			12			12
1	29	3			13			13
1	34	3			14			14
1	35	3			15			15
1	SUMMARY			11	13			
2	25	3			12			12
2	26	3			12			12
2	28	3			12			12
2	29	2		13				13
2	30	2		13				13
2	31	3			13			13
2	32	3			14			14
2	33	3			14			14
2	40	3			16			16
2	SUMMARY			13	13			
3	5	2		7				7
3	17	3			10			10
3	35	3			15			15
3	44	3			18			18
3	54	3			20			20
3	65	3			24			24
3	SUMMARY			7	18			
4	4	2		7				7
4	5	2		7				7
4	30	2		13				13
4	40	3			16			16
4	58	3			21			21
4	59	3			21			21
4	64	3			24			24
4	SUMMARY			7	21			
5	10	2		8				8
5	20	2		11				11
5	26	3			12			12
5	28	2		12				12
5	39	3			16			16
5	42	3			16			16
5	45	3			18			18
5	SUMMARY			11	16			
6	20	2		11				11
6	23	2		11				11

6	26	2		12				12
6	27	3			12			12
6	28	3			12			12
6	30	3			13			13
6	31	3			13			13
6	32	3			14			14
6	36	3			15			15
6	44	3			18			18
6	SUMMARY			11	13			
7	28	2		12				12
7	30	2		13				13
7	31	3			13			13
7	32	3			14			14
7	37	3			15			15
7	SUMMARY			12.5	14			
8	1	2		6				6
8	5	2		7				7
8	14	2		9				9
8	25	2		12				12
8	39	3			16			16
8	44	3			18			18
8	50	3			20			20
8	SUMMARY			8	18			
9	20	2		11				11
9	22	2		11				11
9	23	2		11				11
9	24	2		11				11
9	25	3			12			12
9	26	3			12			12
9	27	3			12			12
9	35	2		15				15
9	37	3			15			15
9	SUMMARY			11	12			
10	22	2		11				11
10	29	3			13			13
10	32	3			14			14
10	52	3			20			20
10	SUMMARY			11	14			
11	17	3			10			10
11	22	2		11				11
11	61	3			24			24
11	SUMMARY			11	17			
12	20	2		11				11
12	23	2		11				11
12	25	3			12			12
12	27	3			12			12
12	30	2		13				13
12	33	3			14			14
12	SUMMARY			11	12			

13	16	2		10				10
13	18	3			10			10
13	20	2		11				11
13	22	3			11			11
13	28	2		12				12
13	32	3			14			14
13	34	3			14			14
13	36	3			15			15
13	SUMMARY			11	14			

Table H-26
ELA Round 1 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	11	13
2	SUMMARY	13	13
3	SUMMARY	7	18
4	SUMMARY	7	21
5	SUMMARY	11	16
6	SUMMARY	11	13
7	SUMMARY	12.5	14
8	SUMMARY	8	18
9	SUMMARY	11	12
10	SUMMARY	11	14
11	SUMMARY	11	17
12	SUMMARY	11	12
13	SUMMARY	11	14
	MEDIANS	11	14
	CUT	12.5	

Table H-27
ELA Round 2 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	21	2		11				11
1	22	2		11				11
1	23	2		11				11
1	26	3			12			12
1	30	3			13			13
1	31	3			13			13
1	32	3			14			14
1	SUMMARY			11	13			
2	16	3			10			10
2	17	3			10			10
2	18	2		10				10
2	19	2		11				11
2	20	2		11				11
2	22	3			11			11
2	23	3			11			11
2	24	2		11				11
2	25	3			12			12
2	35	3			15			15
2	SUMMARY			11	11			
3	16	2		10				10
3	20	2		11				11
3	29	3			13			13
3	32	3			14			14
3	34	3			14			14
3	SUMMARY			10.5	14			
4	16	3			10			10
4	21	2		11				11
4	22	2		11				11
4	43	3			16			16
4	66	3			24			24
4	SUMMARY			11	16			
5	25	3			12			12
5	27	3			12			12
5	29	3			13			13
5	SUMMARY				12			
6	2	2		6				6
6	24	2		11				11
6	25	3			12			12
6	29	3			13			13
6	33	3			14			14
6	34	3			14			14
6	48	3			18			18
6	SUMMARY			8.5	14			
7	29	2		13				13

7	33	3			14			14
7	35	2		15				15
7	36	3			15			15
7	SUMMARY			14	14.5			
9	21	2		11				11
9	28	3			12			12
9	29	3			13			13
9	30	3			13			13
9	31	3			13			13
9	SUMMARY			11	13			
10	19	2		11				11
10	21	2		11				11
10	25	3			12			12
10	26	2		12				12
10	28	3			12			12
10	30	3			13			13
10	SUMMARY			11	12			
11	8	2		8				8
11	21	2		11				11
11	34	3			14			14
11	36	2		15				15
11	51	3			20			20
11	SUMMARY			11	17			
12	24	2		11				11
12	26	3			12			12
12	28	2		12				12
12	34	3			14			14
12	37	3			15			15
12	39	3			16			16
12	SUMMARY			11.5	14.5			
13	17	3			10			10
13	19	2		11				11
13	21	2		11				11
13	23	2		11				11
13	24	2		11				11
13	25	3			12			12
13	26	3			12			12
13	27	3			12			12
13	29	3			13			13
13	30	3			13			13
13	31	3			13			13
13	33	3			14			14
13	SUMMARY			11	12.5			
14	17	2		10				10
14	30	2		13				13
14	32	2		14				14
14	42	3			16			16
14	SUMMARY			13	16			

Table H-28
ELA Round 2 Summary of Results

Rater	COE	Basic	Proficient
1	SUMMARY	11	13
2	SUMMARY	11	11
3	SUMMARY	10.5	14
4	SUMMARY	11	16
5	SUMMARY		12
6	SUMMARY	8.5	14
7	SUMMARY	14	14.5
9	SUMMARY	11	13
10	SUMMARY	11	12
11	SUMMARY	11	17
12	SUMMARY	11.5	14.5
13	SUMMARY	11	12.5
14	SUMMARY	13	16
	MEDIANS	11	14
	CUT	12.5	

Table H-29
ELA Round 3 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	1	1	6					6
1	2	1	6					6
1	3	2		6				6
1	11	2		8				8
1	17	2		10				10
1	23	2		11				11
1	24	2		11				11
1	27	3			12			12
1	39	3			16			16
1	48	3			18			18
1	49	4				20		20
1	53	4				20		20
1	62	5					24	24
1	63	4				24		24
1	SUMMARY		6	10	16	20	24	
2	2	2		6				6
2	4	2		7				7
2	5	2		7				7
2	6	2		7				7
2	11	2		8				8
2	23	1	11					11
2	31	3			13			13
2	36	4				15		15
2	40	5					16	16
2	49	5					20	20
2	51	5					20	20
2	52	4				20		20
2	61	5					24	24
2	66	5					24	24
2	SUMMARY		11	7	13	17.5	20	
3	7	2		8				8
3	10	3			8			8
3	15	2		9				9
3	18	3			10			10
3	31	3			13			13
3	32	3			14			14
3	46	4				18		18
3	50	4				20		20
3	52	3			20			20
3	60	4				21		21
3	63	4				24		24
3	65	4				24		24
3	SUMMARY			8.5	13	21		
4	1	1	6					6

4	2	2		6				6
4	4	2		7				7
4	11	2		8				8
4	20	2		11				11
4	22	1	11					11
4	26	2		12				12
4	36	3			15			15
4	46	4				18		18
4	48	4				18		18
4	56	5					21	21
4	66	5					24	24
4	SUMMARY		8.5	8	15	18	22.5	
5	5	2		7				7
5	7	3			8			8
5	10	3			8			8
5	14	3			9			9
5	16	3			10			10
5	20	2		11				11
5	22	3			11			11
5	27	3			12			12
5	33	4				14		14
5	45	4				18		18
5	55	4				21		21
5	61	4				24		24
5	65	4				24		24
5	SUMMARY			9	9.5	21		
6	7	2		8				8
6	8	1	8					8
6	11	2		8				8
6	12	1	8					8
6	13	1	9					9
6	14	2		9				9
6	32	3			14			14
6	33	3			14			14
6	41	3			16			16
6	42	3			16			16
6	43	4				16		16
6	44	3			18			18
6	52	3			20			20
6	55	4				21		21
6	61	4				24		24
6	62	5					24	24
6	SUMMARY		8	8	16	21	24	
7	6	1	7					7
7	7	1	8					8
7	12	1	8					8
7	14	2		9				9
7	16	2		10				10
7	21	2		11				11

7	45	4				18		18
7	50	4				20		20
7	55	4				21		21
7	57	4				21		21
7	61	4				24		24
7	64	4				24		24
7	SUMMARY		8	10		21		
9	5	1	7					7
9	8	2		8				8
9	10	3			8			8
9	12	2		8				8
9	15	3			9			9
9	16	1	10					10
9	17	3			10			10
9	20	1	11					11
9	22	3			11			11
9	25	3			12			12
9	33	2		14				14
9	39	4				16		16
9	44	4				18		18
9	49	4				20		20
9	53	4				20		20
9	58	5					21	21
9	64	3			24			24
9	SUMMARY		10	8	10.5	19	21	
10	6	1	7					7
10	7	2		8				8
10	8	2		8				8
10	17	2		10				10
10	18	2		10				10
10	19	2		11				11
10	20	1	11					11
10	21	1	11					11
10	23	3			11			11
10	24	2		11				11
10	25	3			12			12
10	26	3			12			12
10	39	3			16			16
10	40	4				16		16
10	41	4				16		16
10	42	3			16			16
10	57	4				21		21
10	58	4				21		21
10	59	4				21		21
10	64	5					24	24
10	66	5					24	24
10	SUMMARY		11	10	12	21	24	
11	4	2		7				7
11	6	3			7			7

11	17	2		10				10
11	22	3			11			11
11	24	3			11			11
11	37	4				15		15
11	41	3			16			16
11	61	4				24		24
11	SUMMARY			8.5	11	19.5		
12	1	1	6					6
12	5	1	7					7
12	9	2		8				8
12	12	1	8					8
12	17	2		10				10
12	22	3			11			11
12	23	3			11			11
12	27	3			12			12
12	31	3			13			13
12	37	4				15		15
12	43	5					16	16
12	46	4				18		18
12	52	3			20			20
12	61	4				24		24
12	65	4				24		24
12	SUMMARY		7	9	12	21	16	
13	25	2		12				12
13	26	3			12			12
13	27	4				12		12
13	28	1	12					12
13	31	3			13			13
13	32	3			14			14
13	36	4				15		15
13	37	4				15		15
13	39	4				16		16
13	45	4				18		18
13	46	4				18		18
13	47	4				18		18
13	48	3			18			18
13	49	4				20		20
13	50	4				20		20
13	SUMMARY		12	12	13.5	18		
14	3	1	6					6
14	9	3			8			8
14	10	5					8	8
14	15	3			9			9
14	24	3			11			11
14	28	2		12				12
14	32	4				14		14
14	39	3			16			16
14	41	3			16			16
14	46	3			18			18

14	50	5					20	20
14	56	5					21	21
14	62	5					24	24
14	63	5					24	24
14	SUMMARY		6	12	13.5	14	21	

Table H-30
ELA Round 3 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	6	10	16	20	24
2	SUMMARY	11	7	13	17.5	20
3	SUMMARY		8.5	13	21	
4	SUMMARY	8.5	8	15	18	22.5
5	SUMMARY		9	9.5	21	
6	SUMMARY	8	8	16	21	24
7	SUMMARY	8	10		21	
9	SUMMARY	10	8	10.5	19	21
10	SUMMARY	11	10	12	21	24
11	SUMMARY		8.5	11	19.5	
12	SUMMARY	7	9	12	21	16
13	SUMMARY	12	12	13.5	18	
14	SUMMARY	6	12	13.5	14	21
	MEDIANS	8.25	9	13	20	21.75
		CUTS	8.625	11	16.5	20.875

Table H-31
ELA Round 4 Judgements

Rater	COE	Rating	Limited Writing	Basic Writing	Proficient Writing	Accelerated Writing	Advanced Writing	Score
1	1	1	6					6
1	2	1	6					6
1	13	2		9				9
1	14	2		9				9
1	15	2		9				9
1	25	2		12				12
1	30	3			13			13
1	31	3			13			13
1	32	3			14			14
1	33	3			14			14
1	34	4				14		14
1	47	4				18		18
1	48	4				18		18
1	49	5					20	20
1	50	5					20	20
1	51	4				20		20
1	52	4				20		20
1	63	5					24	24
1	65	5					24	24
1	66	5					24	24
1	SUMMARY		6	9	13.5	18	24	
2	1	1	6					6
2	2	1	6					6
2	3	2		6				6
2	9	3			8			8
2	11	3			8			8
2	12	2		8				8
2	13	1	9					9
2	14	3			9			9
2	16	3			10			10
2	18	3			10			10
2	19	2		11				11
2	20	2		11				11
2	21	2		11				11
2	56	4				21		21
2	57	4				21		21
2	58	4				21		21
2	59	4				21		21
2	SUMMARY		6	11	9	21		
3	1	1	6					6
3	4	1	7					7
3	11	1	8					8
3	12	1	8					8
3	16	2		10				10

3	29	2		13				13
3	31	3			13			13
3	32	3			14			14
3	39	3			16			16
3	41	3			16			16
3	43	4				16		16
3	48	4				18		18
3	SUMMARY		7.5	11.5	15	17		
4	3	2		6				6
4	15	3			9			9
4	31	3			13			13
4	46	4				18		18
4	51	4				20		20
4	63	5					24	24
4	64	5					24	24
4	SUMMARY			6	11	19	24	
5	5	1	7					7
5	15	3			9			9
5	21	1	11					11
5	33	4				14		14
5	43	5					16	16
5	52	4				20		20
5	53	3			20			20
5	60	4				21		21
5	SUMMARY		9		14.5	20	16	
6	3	1	6					6
6	6	1	7					7
6	10	2		8				8
6	12	2		8				8
6	16	2		10				10
6	18	2		10				10
6	34	3			14			14
6	39	3			16			16
6	47	3			18			18
6	48	3			18			18
6	49	4				20		20
6	50	5					20	20
6	52	4				20		20
6	54	4				20		20
6	55	4				21		21
6	56	5					21	21
6	58	4				21		21
6	65	5					24	24
6	SUMMARY		6.5	9	17	20	21	
7	6	1	7					7
7	10	2		8				8
7	14	2		9				9
7	21	1	11					11
7	25	2		12				12

7	32	3			14			14
7	39	4				16		16
7	40	4				16		16
7	55	4				21		21
7	60	3			21			21
7	SUMMARY		9	9	17.5	16		
8	1	1	6					6
8	11	2		8				8
8	12	2		8				8
8	16	3			10			10
8	27	3			12			12
8	29	3			13			13
8	31	3			13			13
8	37	3			15			15
8	46	3			18			18
8	53	4				20		20
8	61	4				24		24
8	SUMMARY		6	8	13	22		
9	10	1	8					8
9	14	2		9				9
9	17	2		10				10
9	21	1	11					11
9	25	2		12				12
9	28	3			12			12
9	35	3			15			15
9	39	4				16		16
9	55	4				21		21
9	60	3			21			21
9	SUMMARY		9.5	10	15	18.5		
10	5	1	7					7
10	6	1	7					7
10	13	1	9					9
10	17	2		10				10
10	18	3			10			10
10	22	3			11			11
10	23	3			11			11
10	24	3			11			11
10	26	3			12			12
10	33	3			14			14
10	34	3			14			14
10	35	3			15			15
10	50	4				20		20
10	51	4				20		20
10	52	4				20		20
10	SUMMARY		7	10	11.5	20		
11	4	2		7				7
11	5	2		7				7
11	6	2		7				7
11	19	1	11					11

11	20	2		11				11
11	21	2		11				11
11	53	4				20		20
11	54	4				20		20
11	56	5					21	21
11	57	4				21		21
11	58	4				21		21
11	63	4				24		24
11	SUMMARY		11	7		21	21	
12	3	1	6					6
12	4	1	7					7
12	8	1	8					8
12	9	1	8					8
12	13	1	9					9
12	14	3			9			9
12	18	3			10			10
12	24	2		11				11
12	25	2		12				12
12	36	3			15			15
12	40	3			16			16
12	42	3			16			16
12	47	3			18			18
12	55	4				21		21
12	64	4				24		24
12	SUMMARY		8	11.5	15.5	22.5		
13	3	2		6				6
13	4	1	7					7
13	5	1	7					7
13	6	3			7			7
13	7	2		8				8
13	8	1	8					8
13	9	3			8			8
13	10	3			8			8
13	19	1	11					11
13	51	4				20		20
13	55	4				21		21
13	56	4				21		21
13	57	4				21		21
13	58	4				21		21
13	59	4				21		21
13	60	4				21		21
13	61	4				24		24
13	62	4				24		24
13	63	4				24		24
13	64	4				24		24
13	65	4				24		24
13	66	4				24		24
13	SUMMARY		7.5	7	8	21		

Table H-32
ELA Round 4 Summary of Results

Rater	COE	Limited	Basic	Proficient	Accelerated	Advanced
1	SUMMARY	6	9	13.5	18	24
2	SUMMARY	6	11	9	21	
3	SUMMARY	7.5	11.5	15	17	
4	SUMMARY		6	11	19	24
5	SUMMARY	9		14.5	20	16
6	SUMMARY	6.5	9	17	20	21
7	SUMMARY	9	9	17.5	16	
8	SUMMARY	6	8	13	22	
9	SUMMARY	9.5	10	15	18.5	
10	SUMMARY	7	10	11.5	20	
11	SUMMARY	11	7		21	21
12	SUMMARY	8	11.5	15.5	22.5	
13	SUMMARY	7.5	7	8	21	
	MEDIANS	7.5	9	14	20	21
	CUTS	8.25	11.5	17	20.5	

Appendix I: Frequency Distributions of Total Score

Reading with Nonscorables

Total	Cumulative Frequency	Cumulative Percent	Frequency	Percent
0	105	9.43	105	9.43
6	4	0.36	109	9.78
7	1	0.09	110	9.87
8	2	0.18	112	10.05
9	4	0.36	116	10.41
10	2	0.18	118	10.59
12	50	4.49	168	15.08
13	2	0.18	170	15.26
14	13	1.17	183	16.43
15	90	8.08	273	24.51
16	23	2.06	296	26.57
18	364	32.68	660	59.25
20	31	2.78	691	62.03
21	179	16.07	870	78.10
24	244	21.90	1114	100.00

Reading without Nonscorables

total	Frequency	Percent	Cumulative Frequency	Cumulative Percent
6	4	0.40	4	0.40
7	1	0.10	5	0.50
8	2	0.20	7	0.69
9	4	0.40	11	1.09
10	2	0.20	13	1.29
12	50	4.96	63	6.24
13	2	0.20	65	6.44
14	13	1.29	78	7.73
15	90	8.92	168	16.65
16	23	2.28	191	18.93
18	364	36.08	555	55.00
20	31	3.07	586	58.08
21	179	17.74	765	75.82
24	244	24.18	1009	100.00

Math with Nonscorables

total	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	94	8.44	94	8.44
5	1	0.09	95	8.53
6	4	0.36	99	8.89
8	4	0.36	103	9.25
9	3	0.27	106	9.52
10	2	0.18	108	9.69
12	38	3.41	146	13.11
13	3	0.27	149	13.38
14	11	0.99	160	14.36
15	51	4.58	211	18.94
16	23	2.06	234	21.01
18	261	23.43	495	44.43
20	46	4.13	541	48.56
21	138	12.39	679	60.95
24	435	39.05	1114	100.00

Math without Nonscorables

total	Frequency	Percent	Cumulative Frequency	Cumulative Percent
5	1	0.10	1	0.10
6	4	0.39	5	0.49
8	4	0.39	9	0.88
9	3	0.29	12	1.18
10	2	0.20	14	1.37
12	38	3.73	52	5.10
13	3	0.29	55	5.39
14	11	1.08	66	6.47
15	51	5.00	117	11.47
16	23	2.25	140	13.73
18	261	25.59	401	39.31
20	46	4.51	447	43.82
21	138	13.53	585	57.35
24	435	42.65	1020	100.00

Science with Nonscorables

total	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	83	7.45	83	7.45
5	1	0.09	84	7.54
6	1	0.09	85	7.63
8	2	0.18	87	7.81
9	4	0.36	91	8.17
10	1	0.09	92	8.26
12	29	2.60	121	10.86
13	1	0.09	122	10.95
14	8	0.72	130	11.67
15	56	5.03	186	16.70
16	10	0.90	196	17.59
18	282	25.31	478	42.91
20	40	3.59	518	46.50
21	179	16.07	697	62.57
24	417	37.43	1114	100.00

Science without Nonscorables

total	Frequency	Percent	Cumulative Frequency	Cumulative Percent
5	1	0.10	1	0.10
6	1	0.10	2	0.19
8	2	0.19	4	0.39
9	4	0.39	8	0.78
10	1	0.10	9	0.87
12	29	2.81	38	3.69
13	1	0.10	39	3.78
14	8	0.78	47	4.56
15	56	5.43	103	9.99
16	10	0.97	113	10.96
18	282	27.35	395	38.31
20	40	3.88	435	42.19
21	179	17.36	614	59.55
24	417	40.45	1031	100.00

Social Studies with Nonscorables

Total	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	116	10.41	116	10.41
6	1	0.09	117	10.50
7	1	0.09	118	10.59
9	6	0.54	124	11.13
11	1	0.09	125	11.22
12	36	3.23	161	14.45
13	1	0.09	162	14.54
14	15	1.35	177	15.89
15	62	5.57	239	21.45
16	11	0.99	250	22.44
18	323	28.99	573	51.44
20	27	2.42	600	53.86
21	133	11.94	733	65.80
24	381	34.20	1114	100.00

Social Studies without Nonscorables

Total	Frequency	Percent	Cumulative Frequency	Cumulative Percent
6	1	0.10	1	0.10
7	1	0.10	2	0.20
9	6	0.60	8	0.80
11	1	0.10	9	0.90
12	36	3.61	45	4.51
13	1	0.10	46	4.61
14	15	1.50	61	6.11
15	62	6.21	123	12.32
16	11	1.10	134	13.43
18	323	32.36	457	45.79
20	27	2.71	484	48.50
21	133	13.33	617	61.82
24	381	38.18	998	100.00