

Inter-Rater Reliability Study of New York State
Grades 3-8 English Language Arts and Mathematics Tests
2006 Test Administration

Technical Report

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March 29, 2007

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I. Purpose and Scope of Audit

Purpose

The New York State Grades 3-8 English Language Arts (ELA) and Mathematics Tests consist of both multiple-choice (MC) and constructed-response (CR) questions. The multiple-choice items are scored at the Regional Information Centers across the State and the constructed-response items are scored by teachers at the regional scoring centers or in their districts or schools. To ensure that teachers apply the same rigorous scoring standards as intended by the New York State Education Department (NYSED) and to provide evidence of inter-rater reliability, the Department conducts scoring audit every year that involves independent rescoring of five percent of all test papers after each test administration. This audit is conducted on a stratified random sample of schools, selected from each of the grade levels.

To help teachers in the scoring process, NYSED distributes training materials, sample student papers for various score points, and scoring rubrics. School districts provide in-service training to teachers through the use of scoring DVDs and scoring guides provided by NYSED. Combined with this training, student papers for each score point, and scoring rubrics for the constructed-response questions, teachers have consistently done a very good job scoring the state assessment papers.

Schools identified for the 2006 audit were instructed to send their student assessments to Pearson Educational Measurement (PEM) for rescoring. PEM is a professional scoring company known throughout the country for their quality scoring in large-scale state assessment programs. After PEM completed the scoring, various statistical comparisons were made to evaluate the effectiveness and accuracy of the teacher scoring process. This report contains the results from those analyses.

Scope

The Grades 3-8 ELA and mathematics tests were administered in January and March 2006 respectively throughout the State. For the first time, the operational data were collected by NYSED, including both MC and CR scores. The Regional Information Centers scored the MC items and NYS teachers scored the CR items. In June 2006, Pearson Education Measurement (PEM) conducted the audit study by rescoring the CR items from approximately five percent of all test papers. PEM identified a stratified sample of schools from across the State for each of the grade levels that contained approximately 15,000 student test papers. The 15,000 student assessments represented a 20% over-sampling, with the intention of attaining a minimum of 12,500 student

assessments in each sample for rescoring and data analyses. A total of 76,332 ELA and 74,853 math test papers were collected from sample schools and rescored during the summer of 2006.

Audit notification letters were sent to the sample schools in June prior to the end of the school year and the selected schools sent their student test papers to PEM for audit. PEM re-scored the constructed-response questions and matched the audit scores with the local scores collected by NYSED. This process produced two sets of test scores for each student assessment. One set came from the local scoring performed by the NYS teachers, and the second set came from the audit scoring performed by PEM. The data analysis performed in this study consisted of various comparisons between the local scores and the audit scores.

II. Selection of School Sample and Test Papers

Audit Samples

To achieve the target audit sample of 12,500 test papers per grade level, approximately 15,000 test papers were sampled. Six stratified random samples of schools were selected, one for each grade, from all NYS schools with grade 3-8 enrollment to yield the target number of test papers. Each school was selected for audit at only one grade level. All selected schools were requested to send PEM both their ELA and mathematics test booklets for the grade level selected for audit.

Each audit sample was stratified by need/resource capacity category that consists of 7 categories. The need/resource capacity index, a measure of a district's ability to meet the needs of its students with local resources, is the ratio of the estimate poverty percentage to the combined wealth ratio. The need/resource capacity (N/RC) index divides districts into three categories: those with the highest need relative to resource capacity (High N/RC), those with average need relative to resource capacity (Average N/RC), and those with less than average need relative to resource capacity (Low N/RC). The High N/RC districts are subdivided into four groups (see Table 1 for definition).

Table 1. Need/Resource Capacity Category Definitions

Need/Resource Capacity Category	Definition
High N/RC Districts: New York City	New York City
Large Cities	Buffalo, Rochester, Syracuse, Yonkers
Urban-Suburban	Districts at or above 70 th percentile on the index with at least 100 students per square mile or enrollment greater than 2500
Rural	All districts at or above the 70 th percentile with fewer than 50 students per square mile or enrollment of less than 2500
Average N/RC Districts	All districts between the 20 th and 70 th percentiles on the index
Low N/RC Districts	All districts below the 20 th percentile on the index
Charter Schools	Each charter school is a district

The first step in the sampling procedure was to calculate the state n-counts within the seven N/R groups used for sampling. Based on school enrollment data provided by NYSED, the total number of students by grade was calculated for each need/resource category. Table 2 identifies the n-counts for each N/RC group by grade.

Table 2. State n-counts

State n-counts							
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Total
Total	202127	202378	208280	211971	219743	218749	1263248
New York City	72281	69989	72567	71934	73690	73313	433774
Large Cities	8284	8229	8666	9221	10564	9577	54541
High Need Urban/Suburban	16780	16561	16938	17353	17866	17509	103007
High Need Rural	11855	12128	12888	13321	14295	14241	78728
Average Need	60293	62367	64050	66816	70205	71059	394790
Low Need	30638	31116	31208	31714	32079	32179	188934
Charter	1996	1988	1963	1612	1044	871	9474

Once the total n-counts were calculated by code for each grade level, the proportions represented by these n-counts were calculated within each cell. The following table contains those proportions.

Table 3. Target Proportions

Target Proportions							
N/RC Category	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Total
New York City	0.36	0.35	0.35	0.34	0.34	0.34	0.34
Large Cities	0.04	0.04	0.04	0.04	0.05	0.04	0.04
High Need Urban/Suburban	0.08	0.08	0.08	0.08	0.08	0.08	0.08
High Need Rural	0.06	0.06	0.06	0.06	0.07	0.07	0.06
Average Need	0.30	0.31	0.31	0.32	0.32	0.32	0.31
Low Need	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Charter	0.01	0.01	0.01	0.01	0.00	0.00	0.01

Finally, the number of students in each cell as determined by the target proportions was computed. These numbers are the product of the proportions in Table 3 and 15,000 which was the target sample size. This target sample size includes a 20% over-sampling to ensure a minimum sample of 12,500. The following table summarizes these n-counts.

Table 4. Target n-counts

Target n-counts per Sample							
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Total
New York City	5364	5187	5226	5090	5030	5027	30925
Large Cities	615	610	624	653	721	657	3879
High Need Urban/Suburban	1245	1227	1220	1228	1220	1201	7341
High Need Rural	880	899	928	943	976	977	5602
Average Need	4474	4623	4613	4728	4792	4873	28103
Low Need	2274	2306	2248	2244	2190	2207	13468
Charter	148	147	141	114	71	60	682
Totals	15000	15000	15000	15000	15000	15000	90000

Stratified Sampling Design at the School Level

Based on the target n-counts in Table 4, schools were randomly selected by grade within each N/RC group till the desired n-count was reached. Once a school was selected for a grade level, it was removed from the selection process. This ensured that a school would not be audited at more than one grade level. Some school replacement was necessary to ensure that the target n-counts were met. Table 5 lists the resulting n-counts from the school sampling.

Table 5. Selected n-counts

Selected n-counts per Sample							
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Total
New York City	5364	5187	5226	5090	5030	5027	30925
Large Cities	630	618	628	656	727	662	3921
High Need Urban/Suburban	1248	1230	1221	1242	1190	1210	7341
High Need Rural	883	893	919	955	1000	969	5619
Average Need	4474	4618	4615	4721	4799	4884	28111
Low Need	2276	2311	2248	2252	2181	2219	13487
Charter	148	142	152	128	73	49	692
Totals	15023	14999	15009	15044	15000	15020	90096

Table 6 shows the proportions within each cell based on the selected schools. A comparison between the proportions in Table 6 with the state proportions presented in

Table 3 shows a very close match, thus ensuring that the samples at each grade level are representative of population in the State.

Table 6. Sample Proportions

Selected Sample Proportions							
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Total
New York City	0.36	0.35	0.35	0.34	0.34	0.33	0.34
Large Cities	0.04	0.04	0.04	0.04	0.05	0.04	0.04
High Need Urban/Suburban	0.08	0.08	0.08	0.08	0.08	0.08	0.08
High Need Rural	0.06	0.06	0.06	0.06	0.07	0.06	0.06
Average Need	0.30	0.31	0.31	0.31	0.32	0.33	0.31
Low Need	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Charter	0.01	0.01	0.01	0.01	0.00	0.00	0.01

The schools identified in the above sampling scheme were contacted by PEM and their test booklets were used in the audit study.

Special Considerations Used in the Sampling Plan

New York City implemented its own sampling design within their school system. Test papers were retained by scoring centers after scoring was completed. Based on their sampling, PEM received the necessary number of test booklets from New York City.

III. Data Collection and School Participation

After the test booklets were scored by PEM the audit score file was combined with the local score file. Tables 7 and 9 show the actual N-counts in the final data files after all scoring and matching of data. Tables 8 and 10 show the actual proportions in the final data files after all scoring and matching of data.

Table 7. Obtained N-counts for English.

Target Proportions						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
New York City	4033	4236	4528	4624	4576	4623
Large Cities	620	445	490	613	596	646
High Need Urban/Suburban	1095	1035	890	792	710	957
High Need Rural	628	920	765	672	871	640
Average Need	4348	3974	3992	3645	3470	4408
Low Need	1538	1645	1792	1569	1244	2246
Charter	69	28	82	50	58	0

Table 8. Obtained Proportions for English

Target Proportions						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
New York City	.33	.34	.36	.39	.40	.34
Large Cities	.05	.04	.04	.05	.05	.05
High Need Urban/Suburban	.09	.08	.07	.07	.06	.07
High Need Rural	.05	.07	.06	.06	.08	.05
Average Need	.35	.32	.32	.30	.30	.33
Low Need	.12	.13	.14	.13	.11	.17
Charter	.01	.00	.01	.00	.01	.00

Table 9. Obtained N-counts for Mathematics

Target Proportions						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
New York City	4575	4478	4657	4649	4810	4633
Large Cities	667	558	518	554	594	689
High Need Urban/Suburban	1016	777	742	954	949	943
High Need Rural	700	897	778	681	908	797
Average Need	4200	3672	4293	3689	3538	4175
Low Need	933	1222	1352	1221	1444	1988
Charter	153	96	82	147	56	0

Table 10. Obtained Proportions for Mathematics

Target Proportions						
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
New York City	.37	.38	.37	.39	.39	.35
Large Cities	.05	.05	.04	.05	.05	.05
High Need Urban/Suburban	.08	.07	.06	.08	.08	.07
High Need Rural	.06	.08	.06	.06	.07	.06
Average Need	.34	.31	.35	.31	.29	.32
Low Need	.08	.10	.11	.10	.12	.15
Charter	.01	.01	.01	.01	.00	.00

A comparison between these proportions and the desired proportions in Table 3 shows that the data files used in each grade level closely match the intended demographics and were representative of the state.

IV. Selection and Training of Auditors

A. Description of how the auditors were selected

Scoring directors who led the audit were content experts with degrees in the subject area or a related area. Scoring directors were also chosen based on their experience in scoring the subject area. Prior to auditor training, scoring directors reviewed the training materials provided by NYSED. Scoring directors also reviewed the FAQs listed on the NYSED Web site and viewed NYSED-provided DVDs containing original training presentations.

Scoring Supervisors for the audit also had college degrees in the subject area or a related area. Supervisors had experience in scoring the subject area and demonstrated strong organizational abilities and communication skills. Further, ELA supervisors on grades 4, 6, and 8 were required to demonstrate high grammar skills.

Auditors possessed, at a minimum, a four-year college degree. They were placed on the most appropriate subject area based on their educational qualifications and their work or scoring experience. Auditors who demonstrated strong grammar skills in a grammar placement test qualified to assign mechanics scores to linked items.

Our sites' proximity to major universities and a large pool of college graduates gave us access to highly qualified auditors, as well as a high rate of returning auditors.

B. Training of auditors

1. Steps used to support that trainees were adequately trained

Supervisor training in Tucson (22 trainees) and Atlanta (18 trainees) was July 19 – 21, 2006. Supervisors trained on all books, all grades for which they would score. Auditors (105 in Tucson and 119 in Atlanta) began training on July 24. Auditors trained on items in a single book, completed scoring all books, and then trained on a new book for the next grade level.

PEM staff used only those training materials supplied by the NYSED and used in the original scorer training. Scoring directors began training by reviewing and discussing the scoring guides for items in a book. Scoring directors then gave auditors the practice set(s) and auditors assigned scores to these sample responses. After auditors completed the set, scoring directors reviewed and explained true scores for the practice papers. Subsequent practice sets for a book were trained in the same manner. If auditor performance or discussion of the practice sets indicated a need for reviewing or retraining, it occurred at that time.

After discussion of the practice papers and any necessary review, auditors completed the consistency assurance set (CAS) for that book. A review and discussion of the scores occurred after auditors had assigned scores to all papers in the set. The scores achieved on the CAS determined if a trainee understood and could apply the scoring criteria. To qualify to remain on the project, a trainee had to demonstrate accuracy and consistency in scoring the CAS papers. Trainees who were unable to demonstrate accuracy and consistency in scoring were not allowed to score the project.

2. Evidence gathered to support that scorers were adequately trained.

Scorers were expected to meet quality standards during training and scoring. Scorers who failed to meet those quality standards were released from the project. Quality control steps taken during the project were:

- **Backreading (read behinds)** was one of the primary responsibilities of scoring directors and scoring supervisors and began immediately. It was an immediate source of information on scoring accuracy and quickly alerted scoring directors and supervisors to misconceptions at the team level, indicating the need to review or retrain. Backreading continued throughout the scoring of the project. Supervisors increased backreading focus on auditors whose scoring accuracy, based on statistical reports or backreading records, was falling below expectations.
- **Second Scoring** began immediately with 10% of responses in the audit receiving an independent score by a second auditor.
- **Reports** were available throughout the project and were monitored daily by the program manager and scoring directors. These reports included the inter-rater reliability and frequency distribution for individual auditors and for teams. Auditors whose statistics were not meeting quality expectations received retraining and had to demonstrate the ability to meet expectations in order to remain on the project.

V. Audit Procedures

A. Description of the audit procedures

In Tucson (ELA grades 4, 6, and 8), auditors were divided into two groups. One group scored book 2 only. The second group of auditors scored all of book 3 and assigned a mechanics score to the linked items in books 2 and 3.

In Atlanta, auditors for ELA were also divided into two groups. Each group scored either book 1 or book 2 for grades 3, 5, and 7. Math auditors were divided into two groups. One group scored books for grades 3, 5, and 7. The second group, which scored grades 4, 6, and 8, was further divided, with one group scoring the first book for grades 4 and 8 and the second group scoring the second book for grades 4 and 8. Both of these subgroups scored the grade 6 book.

At both sites completed scoring monitors were scanned at regular intervals throughout the day. After monitors were scanned, reports were generated for scoring directors to review and take appropriate action based on the reports (e.g., identifying auditors with low quality statistics, identifying retraining needs).

In total, 68 mathematics constructed response items and 21 ELA constructed response items were rescored by the Pearson auditors.

VI. Data Analysis

For every test booklet used in the data analysis, there were two sets of scores. The first set of scores consisted of the multiple-choice and the constructed-response scores provided by the local scoring. The second set of scores consisted of the same multiple-choice scores and the audit scores for the constructed response items. All data analysis and comparisons were based on these two sets of scores for each test booklet. The same set of analysis was performed for the English and mathematics test booklets.

Item Means

The average score for each constructed-response question was computed based on the local scoring and the audit scoring. Differences between the two scores were also computed. Item means for the multiple-choice items were not examined because the same item responses were used for both the local scoring and the audit scoring.

Inter-rater Agreement

For each constructed-response question, the difference between the local score and the audit score was computed and tallied. The total of the constructed-response items was also computed and the difference between the local scoring and audit scoring results were computed. The proportion of times these differences occurred was calibrated.

Two total scores were computed for each test booklet using the local scoring and audit scoring results. The correlation between these scores was also computed.

Intra-class Correlation

The mean intra-class correlation was computed for each item. This correlation estimates the reliability of the scoring based on an average of the local and audit scores.

Weighted Kappa

The weighted Kappa was calculated for each item based on the local and audit scoring. This statistic produces an estimate of the reliability of the score classifications

Test Mean, Standard Deviation, Test Reliability, and Standard Error of Measurement (SEM)

Using the two sets of scores (local scoring and audit scoring), the mean, standard deviation, coefficient alpha reliability, and standard error of measurement (SEM) were computed.

VII. Results

Item Means

The average score for each constructed-response question was computed based on the local scoring and the audit scoring. Differences between the two scores were also computed. Table 11 presents the results of this analysis for the ELA assessments. The column titled “MAX” contains the maximum points possible for each of the constructed-response questions. The column titled “Dif” contains the difference between the mean score resulting from local scoring and the mean score from the audit scoring.

Table 11. Item Raw Score Mean Comparisons for ELA

ELA					
Grade	Item	MAX Points	Local Scoring	Audit Scoring	Mean Dif
3	18	2	1.86	1.87	-0.01
N=12331	25	2	1.14	1.08	0.06
	26	2	1.13	1.07	0.06
	28	3	2.34	2.36	-0.02
4	29	4	2.54	2.28	0.26
N=12283	30	4	2.76	2.68	0.08
	31	3	2.20	2.10	0.10
5	12	2	1.33	1.23	0.10
N=12539	26	2	1.38	1.26	0.12
	27	3	1.81	1.84	-0.03
6	27	5	3.42	3.09	0.33
N=11965	28	5	3.25	2.81	0.44
	29	3	2.16	2.12	0.04
7	17	2	1.33	1.13	0.20
N=11525	23	2	1.26	0.96	0.30
	32	2	1.41	1.34	0.07
	33	2	1.61	1.58	0.03
	35	3	0.84	0.82	0.02
8	27	5	3.67	3.34	0.33
N=13520	28	5	3.60	3.09	0.51
	29	3	2.28	2.28	0.00

The results from this analysis show a very close agreement between the local scoring and the audit scoring on the English constructed-response questions. Twelve of the 21 items had absolute mean differences less than or equal to 0.10. The local scoring produced a mean score less than the audit mean score in 7 out of 21 items and greater than the audit score mean in 13 out of 21 items. The local scoring and audit scoring produced the exact same result for one item in grade 8.

Table 12 shows the results from the same analysis for the mathematics assessments.

Table 12. Item Raw Score Mean Comparisons for Mathematics

Mathematics					
Grade	Item	MAX Points	Local Scoring	Audit Scoring	Dif
3	26	2	1.82	1.81	0.01
N=12244	27	2	1.23	1.21	0.02
	28	3	2.18	2.16	0.02
	29	3	2.26	2.24	0.02
	30	2	1.65	1.63	0.02
	31	2	1.26	1.27	-0.01
4	31	2	1.52	1.56	-0.04
N=11700	32	3	2.72	2.70	0.02
	33	2	1.00	1.02	-0.02
	34	2	1.42	1.44	-0.02
	35	2	1.53	1.52	0.01
	36	2	1.24	1.25	-0.01
	37	2	1.16	1.16	0.00
	38	3	2.34	2.39	-0.05
	39	2	1.40	1.38	0.02
	40	2	1.66	1.67	-0.01
	41	2	1.63	1.64	-0.01
	42	2	1.09	1.08	0.01
	43	2	1.16	1.14	0.02
	44	2	1.60	1.60	0.00
	45	3	2.48	2.48	0.00
	46	2	1.05	1.08	-0.03
	47	3	2.26	2.23	0.03
	48	2	1.30	1.26	0.04
5	27	2	1.50	1.50	0.00
N=12665	28	3	2.53	2.56	-0.03
	29	3	1.29	1.29	0.00
	30	2	1.20	1.27	-0.07
	31	2	1.29	1.32	-0.03

Table 12. Item Raw Score Mean Comparisons for Mathematics (continued)

Mathematics					
Grade	Item	MAX Points	Local Scoring	Audit Scoring	Dif
	32	2	0.89	0.85	0.04
	33	3	1.96	2.04	-0.08
	34	3	2.25	2.21	0.04
6	26	2	1.44	1.43	0.01
N=11895	27	2	1.27	1.27	0.00
	28	2	0.94	0.93	0.01
	29	3	2.09	2.07	0.02
	30	2	1.51	1.53	-0.02
	31	2	0.79	0.73	0.06
	32	2	1.44	1.49	-0.05
	33	3	1.11	1.05	0.06
	34	3	1.78	1.78	0.00
	35	3	1.16	1.14	0.02
7	31	2	1.22	1.19	0.03
N=12299	32	2	0.88	0.80	0.08
	33	3	1.58	1.50	0.08
	34	3	1.08	0.90	0.18
	35	2	0.85	0.75	0.10
	36	2	1.09	1.05	0.04
	37	3	1.26	1.19	0.07
	38	3	1.39	1.39	0.00
8	28	2	0.97	0.86	0.11
N=13225	29	3	1.89	1.67	0.22
	30	2	1.31	1.10	0.21
	31	3	1.23	1.24	-0.01
	32	2	0.98	0.97	0.01
	33	2	1.13	1.12	0.01
	34	2	1.28	1.25	0.03
	35	2	1.13	1.17	-0.04
	36	3	1.29	1.20	0.09
	37	2	1.32	1.30	0.02
	38	2	1.09	1.12	-0.03
	39	3	1.49	1.47	0.02
	40	2	0.95	0.99	-0.04
	41	2	1.06	1.06	0.00
	42	3	1.72	1.77	-0.05
	43	3	1.65	1.41	0.24
	44	2	1.03	1.04	-0.01
	45	2	1.20	1.19	0.01

The results from this analysis show a very close agreement between the local scoring and the audit scoring on the mathematics constructed-response questions. The local scoring produced a mean score less than the audit scoring in 21 out of 68 items. 38 out of 68 items had local scoring means greater than the audit scoring. The local scoring and audit scoring produced the exact same result for 9 items. Only 5 of the items had differences greater than 0.10.

Inter-rater Agreement

For each constructed-response question, the difference between the local score and the audit score was computed and tallied. The total of the constructed-response items was also computed and the difference between the local scoring and audit scoring results were computed. The absolute value of the differences between the local scores and the audit scores were then tallied and the proportions computed. Those proportions are presented in Table 13 for English and in Table 14 for Mathematics. Appendices K through P contain the proportion of actual differences instead of the absolute values.

Table 13. Percentage of Raw Score Differences for English (Audit Scoring minus Local Scoring)

Grade	Item	MAX Points	Difference				
			0	1	2	3	4
3	18	2	0.98	0.02	0.00		
	25	2	0.63	0.35	0.02		
	26	2	0.72	0.27	0.01		
	28	3	0.86	0.12	0.02	0.00	
4	29	4	0.49	0.46	0.05	0.00	0.00
	30	4	0.55	0.41	0.03	0.01	0.01
	31	3	0.61	0.36	0.02	0.01	
5	12	2	0.69	0.29	0.02		
	26	2	0.74	0.25	0.01		
	27	3	0.73	0.24	0.02	0.00	
6	27	5	0.41	0.49	0.10	0.01	0.00
	28	5	0.39	0.48	0.11	0.01	0.01
	29	3	0.59	0.38	0.02	0.01	
7	17	2	0.62	0.36	0.02		
	23	2	0.53	0.41	0.06		
	32	2	0.65	0.34	0.01		
	33	2	0.75	0.23	0.01		
	35	3	0.72	0.26	0.02	0.00	
8	27	5	0.43	0.49	0.08	0.01	0.00
	28	5	0.38	0.50	0.11	0.01	0.00
	29	3	0.62	0.36	0.01	0.00	

Table 14. Percentage of Raw Score Differences by Item for Mathematics (Audit Scoring minus Local Scoring)

Grade	Item	MAX	Difference			
			0	1	2	3
3	26	2	0.96	0.04	0.00	
	27	2	0.80	0.20	0.00	
	28	3	0.89	0.10	0.01	0.00
	29	3	0.83	0.16	0.01	0.00
	30	2	0.90	0.10	0.00	
	31	2	0.81	0.19	0.01	
4	31	2	0.90	0.10	0.00	
	32	3	0.89	0.10	0.00	0.00
	33	2	0.86	0.14	0.00	
	34	2	0.91	0.09	0.00	
	35	2	0.94	0.05	0.00	
	36	2	0.88	0.11	0.01	
	37	2	0.92	0.07	0.00	
	38	3	0.71	0.28	0.02	0.00
	39	2	0.89	0.11	0.00	
	40	2	0.97	0.03	0.00	
	41	2	0.91	0.08	0.00	
	42	2	0.89	0.11	0.00	
	43	2	0.87	0.13	0.00	
	44	2	0.93	0.07	0.00	
	45	3	0.87	0.12	0.01	0.00
46	2	0.82	0.18	0.00		
47	3	0.81	0.18	0.01	0.00	
48	2	0.87	0.13	0.00		
5	27	2	0.90	0.09	0.01	
	28	3	0.89	0.08	0.02	0.01
	29	3	0.85	0.12	0.03	0.01
	30	2	0.79	0.18	0.03	
	31	2	0.93	0.06	0.01	
	32	2	0.84	0.15	0.01	
	33	3	0.60	0.34	0.05	0.01
	34	3	0.78	0.19	0.02	0.01

Table 14. Differences by Item for Mathematics (continued)

Grade	Item	MAX	Difference			
			0	1	2	3
6	26	2	0.92	0.07	0.00	
	27	2	0.90	0.09	0.00	
	28	2	0.79	0.19	0.02	
	29	3	0.76	0.22	0.01	0.00
	30	2	0.85	0.14	0.01	
	31	2	0.85	0.13	0.02	
	32	2	0.78	0.21	0.01	
	33	3	0.79	0.20	0.01	0.00
	34	3	0.77	0.20	0.03	0.00
	35	3	0.86	0.14	0.01	0.00
7	31	2	0.71	0.28	0.01	
	32	2	0.83	0.16	0.00	
	33	3	0.81	0.18	0.01	0.00
	34	3	0.66	0.30	0.03	0.01
	35	2	0.83	0.17	0.00	
	36	2	0.86	0.14	0.00	
	37	3	0.85	0.14	0.00	0.00
	38	3	0.70	0.27	0.03	0.00
8	28	2	0.78	0.22	0.00	
	29	3	0.61	0.35	0.04	0.00
	30	2	0.64	0.33	0.03	
	31	3	0.77	0.21	0.02	0.00
	32	2	0.88	0.11	0.00	
	33	2	0.94	0.06	0.00	
	34	2	0.83	0.16	0.00	
	35	2	0.69	0.28	0.03	
	36	3	0.81	0.17	0.02	0.00
	37	2	0.84	0.16	0.00	
	38	2	0.83	0.16	0.01	
	39	3	0.73	0.25	0.02	0.00
	40	2	0.82	0.18	0.00	
	41	2	0.85	0.14	0.01	
	42	3	0.63	0.34	0.03	0.00
43	3	0.58	0.37	0.04	0.00	
44	2	0.76	0.21	0.03		
45	2	0.81	0.18	0.01		

The information provided in Table 14 shows that the degree of consistency between the local and audit scoring for mathematics is even higher than that found for English. The proportion of exact agreement between the local scoring and the audit scoring was 0.82 on average. In all 68 items, at least 90% of the local and audit scores differed by 1 score point or less.

Percent of Agreement, Item Means and Standard Deviations, Intra-Class Correlations, and weighted Kappa

Tables 15 and 16 contain the percent of agreement, item means, and standard deviations for the local and audit scoring results by item for English and Mathematics. The item level mean intra-class correlations and weighted kappa are also presented.

The Intra-Class Correlation (ICC) assesses rating reliability by comparing the variability of different ratings of the same subject to the total variation across all ratings and all subjects. The mean intra-class correlation estimates the reliability of the scoring based on an average of the local and audit scores. Generally, correlations greater than 0.60 are considered very strong because they explain more than one-third of the variance.

The weighted Kappa is an estimate of the reliability of the score classifications. That is, the Kappa statistic is a measure of reproducibility for categorical data. Guidelines for the Evaluation of Kappa are:

- $k > .75$ denotes excellent reproducibility
- $0.4 \leq k \leq .75$ denotes good reproducibility
- $0 \leq k \leq 0.4$ denotes marginal reproducibility

The results found in these tables show a high degree of consistency between the local and audit scoring. In Table 15 the intra-class correlations range from 0.57 to 0.96 for English. In Table 16 the intra-class correlations range from 0.81 to 0.97 for Mathematics. These correlations show a high level of agreement between the local and audit scoring

Table 15. NYS Public Schools ELA Operational Test 2006: Inter-rater Agreement

Grade	Item #	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
3	18	2	12331	97.6	2.3	99.8	1.9	1.9	0.45	0.43	0.96	0.86
	25	2	12331	62.6	35.4	98.1	1.1	1.1	0.73	0.69	0.73	0.63
	26	2	12331	71.5	27.5	99.0	1.1	1.1	0.76	0.69	0.82	0.72
	28	3	12331	86.0	11.8	97.8	2.3	2.4	0.98	0.97	0.94	0.86
4	29	4	12283	48.7	45.8	94.5	2.5	2.3	0.88	0.81	0.68	0.37
	30	4	12283	54.6	40.8	95.4	2.8	2.7	0.85	0.92	0.70	0.55
	31	3	12283	60.7	36.1	96.8	2.2	2.1	0.71	0.78	0.67	0.61
5	12	2	12539	69.2	28.6	97.9	1.3	1.2	0.74	0.77	0.80	0.53
	26	2	12539	73.6	24.9	98.5	1.4	1.3	0.69	0.75	0.83	0.74
	27	3	12539	73.3	24.5	97.8	1.8	1.8	1.02	1.03	0.91	0.73
6	27	5	11965	40.6	49.0	89.6	3.4	3.1	1.10	0.96	0.72	0.39
	28	5	11965	39.2	47.8	87.1	3.3	2.8	1.16	1.05	0.69	0.39
	29	3	11965	59.0	37.9	96.9	2.2	2.1	0.72	0.79	0.69	0.59
7	17	2	11525	62.4	35.6	97.9	1.3	1.1	0.76	0.78	0.78	0.46
	23	2	11525	52.9	40.7	93.6	1.3	1.0	0.71	0.74	0.57	0.53
	32	2	11525	64.5	34.0	98.5	1.4	1.3	0.65	0.67	0.70	0.65
	33	2	11525	75.4	23.5	98.8	1.6	1.6	0.59	0.61	0.76	0.75
	35	3	11525	71.9	25.5	97.4	0.8	0.8	0.96	0.97	0.89	0.72
8	27	5	13520	42.9	48.5	91.5	3.7	3.3	1.08	1.01	0.76	0.42
	28	5	13520	37.7	49.7	87.4	3.6	3.1	1.13	1.00	0.71	0.38
	29	3	13520	62.2	36.1	98.4	2.3	2.3	0.69	0.73	0.72	0.62

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table 16. NYS Public Schools Mathematics Operational Test 2006: Inter-rater Agreement

Grade	Item #	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
3	26	2	12244	96.1	3.7	99.8	1.8	1.8	0.47	0.50	0.95	0.85
	27	2	12244	80.3	19.6	99.9	1.2	1.2	0.61	0.62	0.85	0.80
	28	3	12244	89.2	10.2	99.4	2.2	2.2	0.94	0.94	0.96	0.89
	29	3	12244	83.2	16.2	99.3	2.3	2.2	0.73	0.74	0.90	0.83
	30	2	12244	89.6	9.9	99.5	1.7	1.6	0.66	0.69	0.93	0.90
	31	2	12244	80.9	18.5	99.4	1.3	1.3	0.75	0.75	0.90	0.81
4	31	2	11700	90.0	9.8	99.8	1.5	1.6	0.72	0.69	0.94	0.81
	32	3	11700	89.4	10.0	99.4	2.7	2.7	0.65	0.68	0.92	0.89
	33	2	11700	85.8	14.0	99.8	1.0	1.0	0.71	0.70	0.92	0.86
	34	2	11700	90.8	9.1	99.9	1.4	1.4	0.70	0.67	0.95	0.91
	35	2	11700	94.2	5.4	99.5	1.5	1.5	0.82	0.82	0.97	0.94
	36	2	11700	88.1	11.2	99.3	1.2	1.3	0.90	0.92	0.96	0.88
	37	2	11700	92.4	7.2	99.6	1.2	1.2	0.88	0.89	0.97	0.92
	38	3	11700	70.6	27.7	98.3	2.3	2.4	0.78	0.77	0.83	0.71
	39	2	11700	89.1	10.5	99.6	1.4	1.4	0.81	0.82	0.95	0.89
	40	2	11700	96.7	3.2	99.8	1.7	1.7	0.64	0.64	0.98	0.97
	41	2	11700	91.4	8.2	99.7	1.6	1.6	0.70	0.71	0.95	0.91
	42	2	11700	88.8	10.9	99.7	1.1	1.1	0.86	0.86	0.96	0.89
	43	2	11700	87.0	12.6	99.6	1.2	1.1	0.86	0.88	0.95	0.87
	44	2	11700	92.7	7.1	99.8	1.6	1.6	0.65	0.66	0.95	0.93
	45	3	11700	87.0	12.0	99.0	2.5	2.5	0.89	0.91	0.95	0.87
	46	2	11700	82.1	17.8	99.8	1.0	1.1	0.63	0.64	0.87	0.82
	47	3	11700	81.4	17.7	99.2	2.3	2.2	1.03	1.05	0.95	0.81
	48	2	11700	86.9	12.8	99.7	1.3	1.3	0.80	0.84	0.95	0.87

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table 16. NYS Public Schools Mathematics Operational Test 2006: Inter-rater Agreement (Continued)

Grade	Item #	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
5	27	2	12422	89.8	8.8	98.5	1.5	1.5	0.79	0.81	0.94	0.80
	28	3	12422	89.0	7.8	96.9	2.5	2.6	0.89	0.85	0.90	0.89
	29	3	12422	85.0	11.6	96.6	1.3	1.3	1.36	1.36	0.96	0.85
	30	2	12422	79.2	17.7	96.9	1.2	1.3	0.89	0.88	0.89	0.79
	31	2	12422	93.0	6.3	99.4	1.3	1.3	0.60	0.59	0.93	0.93
	32	2	12422	83.6	15.4	99.0	0.9	0.9	0.85	0.88	0.93	0.84
	33	3	12422	59.8	34.0	93.8	2.0	2.0	1.00	1.01	0.81	0.60
	34	3	12422	77.6	18.8	96.4	2.2	2.2	0.99	1.04	0.89	0.78
6	26	2	11895	92.4	7.4	99.8	1.4	1.4	0.82	0.82	0.97	0.86
	27	2	11895	90.3	9.3	99.5	1.3	1.3	0.91	0.92	0.97	0.90
	28	2	11895	79.3	19.0	98.3	0.9	0.9	0.88	0.87	0.91	0.79
	29	3	11895	76.4	22.3	98.7	2.1	2.1	1.09	1.10	0.94	0.76
	30	2	11895	85.3	14.1	99.4	1.5	1.5	0.76	0.77	0.92	0.85
	31	2	11895	84.6	13.1	97.7	0.8	0.7	0.90	0.92	0.93	0.85
	32	2	11895	77.6	21.1	98.7	1.4	1.5	0.71	0.69	0.85	0.78
	33	3	11895	78.6	20.2	98.9	1.1	1.0	1.22	1.24	0.96	0.79
	34	3	11895	77.2	19.8	97.0	1.8	1.8	1.24	1.26	0.94	0.77
	35	3	11895	85.5	13.7	99.2	1.2	1.1	1.04	1.04	0.96	0.86
7	31	2	12299	70.9	28.4	99.3	1.2	1.2	0.74	0.74	0.83	0.57
	32	2	12299	83.3	16.5	99.8	0.9	0.8	0.71	0.72	0.91	0.83
	33	3	12299	80.5	18.2	98.7	1.6	1.5	1.21	1.25	0.96	0.81
	34	3	12299	66.5	29.9	96.4	1.1	0.9	1.10	1.12	0.89	0.66
	35	2	12299	82.6	16.9	99.5	0.8	0.8	0.87	0.90	0.94	0.83
	36	2	12299	85.9	13.7	99.6	1.1	1.0	0.91	0.94	0.95	0.86
	37	3	12299	85.2	14.3	99.5	1.3	1.2	0.72	0.71	0.91	0.85
	38	3	12299	69.9	26.7	96.7	1.4	1.4	1.18	1.20	0.92	0.70

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.

Total agreement (%) is the sum of exact and approximate percents.

Table 16. NYS Public Schools Mathematics Operational Test 2006: Inter-rater Agreement (Continued)

Grade	Item #	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
8	28	2	13225	77.9	21.6	99.5	1.0	0.9	0.84	0.88	0.91	0.73
	29	3	13225	60.6	34.8	95.4	1.9	1.7	1.17	1.15	0.89	0.61
	30	2	13225	64.4	32.7	97.1	1.3	1.1	0.82	0.78	0.80	0.64
	31	3	13225	76.5	21.4	98.0	1.2	1.2	1.24	1.26	0.95	0.77
	32	2	13225	88.4	11.5	99.9	1.0	1.0	0.79	0.80	0.95	0.88
	33	2	13225	94.4	5.5	99.9	1.1	1.1	0.61	0.61	0.96	0.94
	34	2	13225	83.2	16.5	99.7	1.3	1.2	0.79	0.82	0.93	0.83
	35	3	13225	68.8	28.3	97.1	1.1	1.2	0.85	0.84	0.84	0.69
	36	3	13225	80.8	17.4	98.2	1.3	1.2	1.25	1.30	0.96	0.81
	37	2	13225	83.9	15.9	99.8	1.3	1.3	0.78	0.80	0.93	0.84
	38	2	13225	83.2	16.1	99.3	1.1	1.1	0.87	0.89	0.94	0.83
	39	3	13225	73.3	24.7	98.0	1.5	1.5	1.22	1.26	0.94	0.73
	40	2	13225	81.6	18.1	99.8	1.0	1.0	0.77	0.79	0.91	0.82
	41	2	13225	85.0	14.2	99.2	1.1	1.1	0.90	0.92	0.94	0.85
	42	3	13225	63.0	34.2	97.2	1.7	1.8	0.98	1.00	0.87	0.63
	43	3	13225	58.1	37.5	95.6	1.6	1.4	1.03	1.04	0.85	0.58
	44	2	13225	76.2	20.7	96.9	1.0	1.0	0.91	0.93	0.89	0.76
	45	2	13225	81.1	18.0	99.1	1.2	1.2	0.90	0.91	0.93	0.81

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Two total scores were computed for each test booklet using the local scoring and audit scoring results for the open-ended questions. The correlation between these scores was also computed and the results are presented in Table 17 for English and mathematics.

Table 17. Correlations Between Local and Audit Scores

Grade	English	Mathematics
3	0.98	0.99
4	0.97	0.99
5	0.98	0.98
6	0.96	0.99
7	0.98	0.99
8	0.97	0.99

The correlations show a very high degree of consistency between the local and audit scoring results. As indicated in Tables 13 and 14, the consistency is slightly higher in mathematics than in English, but the lowest correlation is still a very respectable 0.96 in grade 6 English.

Additional Analyses

The results from additional analyses are presented in the appendices. Appendix A contains a detailed item analysis for the English constructed-response items resulting from the local scoring. These tables show the proportion of students obtaining each of the possible score points for each item. The tables also provide the item mean, and point-biserial (PBS).

The same item analysis for the English audit scores are in Appendix B. Appendices C and D contain similar information for Mathematics.

Analyses are computed for all schools and then by scoring model. The scoring models are:

1. Regional scoring
2. Schools from two districts
3. Three or more schools within a district
4. Two schools within a district
5. Only one school

Appendices E, F, and G contain summary item-level information for the English assessments. This information was computed for the various scoring models.

The appendices are for:

1. All schools in the state,
2. All schools without the New York City schools, and
3. New York City schools only.

These tables summarize the following item-level information:

- Maximum score points
- Exact agreement
- Approximate agreement
- Item mean and standard deviation from Audit and Local Scoring
- Intra-class correlation
- Kappa statistic

Appendices H, I, and J contain similar information for the Mathematics assessments.

Appendices K, L, and M contain the distribution of differences at the item level between the Audit scoring and the Local scoring for English. This information was computed for the various scoring models. The appendices are for:

1. All schools in the state,
2. All schools without the New York City schools, and
3. New York City schools only.

Appendices N, O, and P contain similar information for the Mathematics assessments.

VIII. Summary

The sample acquisition was very successful. A comparison between the obtained proportions for English and Mathematics with the state proportions found in tables 3, 8, and 10 shows that the samples mirrored the State in these categories. For all grades the obtained proportions in each of the 7 Need/Resource Capacity categories were virtually identical to the state proportions. As a result, the analysis performed in the study is based on data which is representative of the State demographics.

A summary of the analyses performed in this study indicates that the local scoring results were very close to the audit scoring results. Correlations between the total scores resulting from the audit scoring and the local scoring range from a low of 0.97 to a high of 0.99. This indicates a high degree of agreement between local and audit scoring results.

Examination of the differences between local scoring and audit scoring at the item level also shows a high degree of consistency. In English the largest mean difference between local and audit scoring for any item at any grade when taken as a proportion of the maximum item score possible was 0.15. For Mathematics the largest difference was 0.11. For both test areas the smallest difference rounded to 0.00.

In conclusion, it appears that the local scoring results are very consistent with the audit scoring. No major discrepancies were found in these analyses.

Appendix A

English Item Analysis for Local Scoring

LOCAL SCORING ELA Grade 3 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
18	O	.01	.03	.06	.90	.00	.00	1.86	0.46
25	O	.00	.20	.44	.35	.00	.00	1.14	0.52
26	O	.01	.22	.41	.36	.00	.00	1.13	0.55
28	O	.00	.09	.10	.19	.62	.00	2.34	0.57

LOCAL SCORING ELA Grade 4 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
29	O	.00	.01	.10	.37	.39	.14	2.54	0.67
30	O	.00	.00	.06	.30	.43	.20	2.76	0.69
31	O	.00	.01	.15	.48	.36	.00	2.20	0.61

LOCAL SCORING ELA Grade 5 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
12	O	.01	.15	.34	.49	.00	.00	1.33	0.52
26	O	.00	.12	.37	.51	.00	.00	1.38	0.57
27	O	.00	.13	.23	.33	.31	.00	1.81	0.64

LOCAL SCORING ELA Grade 6 Item Statistics

Item	Key	B	0	1	2	3	4	5	6	Mean	PBS
27	O	.00	.01	.04	.14	.30	.34	.17	.00	3.42	0.70
28	O	.00	.01	.07	.19	.30	.28	.15	.00	3.25	0.71
29	O	.00	.01	.15	.50	.34	.00	.00	.00	2.16	0.63

LOCAL SCORING ELA Grade 7 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
17	O	.03	.15	.31	.51	.00	.00	1.33	0.57
23	O	.03	.13	.42	.42	.00	.00	1.26	0.44
32	O	.01	.09	.41	.50	.00	.00	1.41	0.52
33	O	.01	.05	.28	.66	.00	.00	1.61	0.45
35	O	.01	.48	.25	.19	.07	.00	0.84	0.65

LOCAL SCORING ELA Grade 8 Item Statistics

Item	Key	B	0	1	2	3	4	5	6	Mean	PBS
27	O	.00	.00	.03	.11	.26	.34	.25	.00	3.67	0.66
28	O	.00	.00	.03	.14	.26	.32	.25	.00	3.60	0.65
29	O	.00	.01	.10	.48	.40	.00	.00	.00	2.28	0.62

Appendix B

English Item Analysis for Audit Scoring

AUDIT SCORING ELA Grade 3 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
18	O	.01	.03	.06	.90	.00	.00	1.87	0.46
25	O	.00	.20	.52	.28	.00	.00	1.08	0.54
26	O	.01	.19	.51	.28	.00	.00	1.07	0.53
28	O	.00	.09	.09	.19	.63	.00	2.36	0.56

AUDIT SCORING ELA Grade 4 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
29	O	.01	.01	.12	.49	.31	.06	2.28	0.62
30	O	.02	.00	.06	.33	.40	.19	2.68	0.65
31	O	.02	.01	.16	.48	.33	.00	2.10	0.60

AUDIT SCORING ELA Grade 5 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
12	O	.01	.20	.36	.44	.00	.00	1.23	0.48
26	O	.00	.18	.38	.44	.00	.00	1.26	0.58
27	O	.00	.14	.21	.33	.32	.00	1.84	0.64

AUDIT SCORING ELA Grade 6 Item Statistics

Item	Key	B	0	1	2	3	4	5	6	Mean	PBS
27	O	.00	.01	.04	.18	.42	.30	.04	.00	3.09	0.58
28	O	.02	.01	.07	.26	.38	.24	.03	.00	2.81	0.63
29	O	.02	.01	.16	.46	.35	.00	.00	.00	2.12	0.61

AUDIT SCORING ELA Grade 7 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
17	O	.03	.22	.38	.38	.00	.00	1.13	0.57
23	O	.03	.26	.45	.25	.00	.00	0.96	0.37
32	O	.01	.10	.44	.45	.00	.00	1.34	0.49
33	O	.01	.06	.29	.65	.00	.00	1.58	0.44
35	O	.01	.50	.23	.19	.07	.00	0.82	0.63

AUDIT SCORING ELA Grade 8 Item Statistics

Item	Key	B	0	1	2	3	4	5	6	Mean	PBS
27	O	.00	.01	.03	.14	.36	.35	.11	.00	3.34	0.65
28	O	.00	.01	.04	.21	.36	.33	.05	.00	3.09	0.67
29	O	.01	.01	.11	.44	.43	.00	.00	.00	2.28	0.61

Appendix C

Mathematics Item Analysis for Local Scoring

LOCAL SCORING MATH Grade 3 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
26	O	.00	.04	.11	.85	.00	.00	1.82	0.43
27	O	.00	.10	.58	.32	.00	.00	1.23	0.50
28	O	.00	.01	.33	.12	.53	.00	2.18	0.63
29	O	.00	.01	.15	.42	.42	.00	2.26	0.53
30	O	.00	.10	.14	.76	.00	.00	1.65	0.50
31	O	.00	.18	.38	.44	.00	.00	1.26	0.54

LOCAL SCORING MATH Grade 4 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
31	O	.00	.13	.21	.66	.00	.00	1.52	0.61
32	O	.00	.02	.04	.12	.81	.00	2.72	0.41
33	O	.00	.25	.49	.26	.00	.00	1.00	0.57
34	O	.00	.12	.33	.54	.00	.00	1.42	0.61
35	O	.00	.21	.06	.73	.00	.00	1.53	0.51
36	O	.00	.31	.13	.55	.00	.00	1.24	0.59
37	O	.00	.32	.19	.48	.00	.00	1.16	0.52
38	O	.00	.02	.12	.34	.51	.00	2.34	0.55
39	O	.01	.20	.18	.61	.00	.00	1.40	0.54
40	O	.00	.10	.14	.76	.00	.00	1.66	0.55
41	O	.00	.13	.11	.76	.00	.00	1.63	0.50
42	O	.00	.32	.26	.42	.00	.00	1.09	0.63
43	O	.00	.30	.24	.46	.00	.00	1.16	0.68
44	O	.00	.09	.22	.69	.00	.00	1.60	0.60
45	O	.00	.06	.09	.16	.69	.00	2.48	0.47
46	O	.00	.18	.60	.23	.00	.00	1.05	0.51
47	O	.00	.12	.07	.23	.58	.00	2.26	0.64
48	O	.00	.21	.27	.52	.00	.00	1.30	0.67

LOCAL SCORING MATH Grade 5 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
27	O	.02	.17	.13	.68	.00	.00	1.50	0.61
28	O	.02	.04	.09	.11	.74	.00	2.53	0.57
29	O	.02	.47	.07	.11	.34	.00	1.29	0.59
30	O	.02	.29	.17	.51	.00	.00	1.20	0.59
31	O	.02	.06	.55	.37	.00	.00	1.29	0.59
32	O	.02	.40	.26	.32	.00	.00	0.89	0.55
33	O	.02	.07	.25	.27	.39	.00	1.96	0.62
34	O	.02	.06	.16	.19	.57	.00	2.25	0.65

LOCAL SCORING MATH Grade 6 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
26	O	.00	.21	.14	.65	.00	.00	1.44	0.57
27	O	.00	.31	.10	.58	.00	.00	1.27	0.65
28	O	.01	.41	.23	.35	.00	.00	0.94	0.59
29	O	.00	.12	.17	.17	.52	.00	2.09	0.62
30	O	.00	.16	.16	.67	.00	.00	1.51	0.41
31	O	.01	.53	.14	.32	.00	.00	0.79	0.63
32	O	.00	.12	.30	.57	.00	.00	1.44	0.53
33	O	.01	.45	.20	.10	.24	.00	1.11	0.71
34	O	.00	.24	.18	.13	.45	.00	1.78	0.63
35	O	.01	.28	.44	.09	.18	.00	1.16	0.71

LOCAL SCORING MATH Grade 7 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
31	O	.00	.18	.41	.41	.00	.00	1.22	0.49
32	O	.01	.31	.48	.20	.00	.00	0.88	0.65
33	O	.01	.25	.26	.13	.35	.00	1.58	0.69
34	O	.01	.37	.35	.08	.19	.00	1.08	0.64
35	O	.01	.45	.23	.31	.00	.00	0.85	0.67
36	O	.01	.37	.17	.46	.00	.00	1.09	0.63
37	O	.00	.05	.72	.12	.10	.00	1.26	0.51
38	O	.01	.31	.23	.19	.26	.00	1.39	0.72

LOCAL SCORING MATH Grade 8 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
28	O	.00	.36	.30	.33	.00	.00	0.97	0.64
29	O	.00	.21	.12	.24	.43	.00	1.89	0.66
30	O	.00	.23	.23	.54	.00	.00	1.31	0.48
31	O	.03	.40	.18	.14	.26	.00	1.23	0.75
32	O	.01	.31	.37	.30	.00	.00	0.98	0.71
33	O	.01	.12	.61	.26	.00	.00	1.13	0.54
34	O	.01	.20	.30	.49	.00	.00	1.28	0.57
35	O	.02	.29	.25	.44	.00	.00	1.13	0.65
36	O	.02	.38	.17	.15	.27	.00	1.29	0.76
37	O	.01	.19	.29	.52	.00	.00	1.32	0.61
38	O	.02	.32	.23	.43	.00	.00	1.09	0.69
39	O	.01	.31	.19	.19	.31	.00	1.49	0.73
40	O	.03	.30	.40	.27	.00	.00	0.95	0.65
41	O	.03	.35	.19	.44	.00	.00	1.06	0.71
42	O	.02	.11	.29	.32	.26	.00	1.72	0.63
43	O	.01	.16	.26	.32	.25	.00	1.65	0.61
44	O	.02	.37	.18	.43	.00	.00	1.03	0.64
45	O	.02	.30	.15	.52	.00	.00	1.20	0.58

Appendix D

Mathematics Item Analysis for Audit Scoring

AUDIT SCORING MATH Grade 3 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
26	O	.00	.05	.10	.85	.00	.00	1.81	0.43
27	O	.00	.10	.57	.32	.00	.00	1.21	0.50
28	O	.00	.01	.34	.12	.52	.00	2.16	0.64
29	O	.00	.00	.16	.41	.42	.00	2.24	0.53
30	O	.00	.12	.13	.75	.00	.00	1.63	0.51
31	O	.00	.18	.36	.45	.00	.00	1.27	0.54

AUDIT SCORING MATH Grade 4 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
31	O	.00	.11	.22	.67	.00	.00	1.56	0.59
32	O	.00	.02	.06	.11	.81	.00	2.70	0.41
33	O	.00	.23	.51	.26	.00	.00	1.02	0.56
34	O	.00	.10	.36	.54	.00	.00	1.44	0.59
35	O	.00	.21	.06	.73	.00	.00	1.52	0.51
36	O	.00	.33	.08	.58	.00	.00	1.25	0.58
37	O	.00	.32	.19	.49	.00	.00	1.16	0.52
38	O	.00	.02	.10	.32	.55	.00	2.39	0.54
39	O	.01	.21	.19	.59	.00	.00	1.38	0.53
40	O	.00	.10	.14	.77	.00	.00	1.67	0.54
41	O	.00	.13	.09	.77	.00	.00	1.64	0.49
42	O	.00	.33	.25	.42	.00	.00	1.08	0.62
43	O	.00	.33	.20	.47	.00	.00	1.14	0.67
44	O	.00	.09	.21	.69	.00	.00	1.60	0.59
45	O	.00	.07	.08	.15	.70	.00	2.48	0.46
46	O	.00	.16	.59	.25	.00	.00	1.08	0.50
47	O	.00	.13	.08	.23	.56	.00	2.23	0.63
48	O	.00	.25	.23	.52	.00	.00	1.26	0.66

AUDIT SCORING MATH Grade 5 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
27	O	.00	.20	.10	.70	.00	.00	1.50	0.56
28	O	.00	.05	.07	.13	.74	.00	2.56	0.44
29	O	.00	.49	.07	.10	.34	.00	1.29	0.62
30	O	.00	.29	.15	.56	.00	.00	1.27	0.59
31	O	.00	.06	.55	.38	.00	.00	1.32	0.53
32	O	.00	.47	.20	.32	.00	.00	0.85	0.55
33	O	.00	.09	.22	.26	.43	.00	2.04	0.54
34	O	.00	.10	.16	.18	.56	.00	2.21	0.56

AUDIT SCORING MATH Grade 6 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
26	O	.00	.22	.14	.64	.00	.00	1.43	0.57
27	O	.00	.32	.08	.59	.00	.00	1.27	0.64
28	O	.01	.41	.23	.35	.00	.00	0.93	0.59
29	O	.00	.13	.17	.19	.51	.00	2.07	0.62
30	O	.00	.17	.12	.70	.00	.00	1.53	0.37
31	O	.01	.58	.08	.33	.00	.00	0.73	0.62
32	O	.00	.11	.28	.60	.00	.00	1.49	0.50
33	O	.01	.49	.19	.06	.24	.00	1.05	0.70
34	O	.00	.24	.18	.11	.46	.00	1.78	0.63
35	O	.01	.28	.47	.06	.19	.00	1.14	0.69

AUDIT SCORING MATH Grade 7 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
31	O	.00	.19	.41	.39	.00	.00	1.19	0.47
32	O	.01	.37	.44	.18	.00	.00	0.80	0.62
33	O	.01	.28	.26	.09	.35	.00	1.50	0.68
34	O	.01	.50	.24	.08	.17	.00	0.90	0.64
35	O	.02	.54	.13	.31	.00	.00	0.75	0.65
36	O	.01	.42	.11	.47	.00	.00	1.05	0.64
37	O	.01	.07	.76	.06	.10	.00	1.19	0.50
38	O	.01	.32	.23	.17	.27	.00	1.39	0.70

AUDIT SCORING MATH Grade 8 Item Statistics

Item	Key	B	0	1	2	3	4	Mean	PBS
28	O	.01	.46	.20	.33	.00	.00	0.86	0.64
29	O	.01	.23	.15	.30	.31	.00	1.67	0.68
30	O	.00	.26	.38	.36	.00	.00	1.10	0.58
31	O	.03	.40	.17	.13	.27	.00	1.24	0.74
32	O	.01	.32	.37	.30	.00	.00	0.97	0.71
33	O	.01	.12	.61	.26	.00	.00	1.12	0.53
34	O	.01	.23	.27	.49	.00	.00	1.25	0.55
35	O	.02	.27	.26	.45	.00	.00	1.17	0.62
36	O	.03	.47	.09	.14	.28	.00	1.20	0.74
37	O	.01	.20	.27	.52	.00	.00	1.30	0.61
38	O	.02	.32	.19	.47	.00	.00	1.12	0.67
39	O	.01	.33	.19	.15	.33	.00	1.47	0.71
40	O	.03	.29	.38	.30	.00	.00	0.99	0.66
41	O	.03	.37	.16	.45	.00	.00	1.06	0.70
42	O	.02	.12	.22	.38	.26	.00	1.77	0.62
43	O	.01	.22	.31	.27	.19	.00	1.41	0.61
44	O	.02	.39	.13	.46	.00	.00	1.04	0.63
45	O	.02	.31	.13	.53	.00	.00	1.19	0.56

Appendix E

Item Level Statistics for English Including All Schools in State

Table E-1. NYS Public Schools Grade 3 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
18	Overall	2	12331	97.6	2.3	99.8	1.9	1.9	0.45	0.43	0.96	0.86
	1	2	5331	97.2	2.6	99.7	1.8	1.8	0.50	0.48	0.96	0.97
	2	2	324	98.1	1.5	99.7	1.9	1.9	0.39	0.34	0.95	0.98
	3	2	4660	98.0	2.0	99.9	1.9	1.9	0.38	0.37	0.96	0.98
	4	2	930	97.8	1.8	99.7	1.9	1.9	0.45	0.45	0.96	0.98
	5	2	1086	97.1	2.6	99.7	1.9	1.9	0.48	0.44	0.95	0.97
25	Overall	2	12331	62.6	35.4	98.1	1.1	1.1	0.73	0.69	0.73	0.63
	1	2	5331	61.6	36.2	97.8	1.1	1.1	0.73	0.70	0.71	0.62
	2	2	324	58.6	40.1	98.8	1.1	1.1	0.78	0.65	0.72	0.59
	3	2	4660	62.6	35.6	98.2	1.2	1.1	0.73	0.68	0.73	0.63
	4	2	930	63.3	34.5	97.8	1.2	1.1	0.73	0.70	0.73	0.63
	5	2	1086	68.5	30.4	98.9	1.1	1.1	0.73	0.67	0.79	0.69
26	Overall	2	12331	71.5	27.5	99.0	1.1	1.1	0.76	0.69	0.82	0.72
	1	2	5331	69.3	29.5	98.9	1.1	1.0	0.75	0.68	0.8	0.69
	2	2	324	79.0	20.7	99.7	1.2	1.1	0.76	0.68	0.88	0.79
	3	2	4660	71.9	27.0	98.9	1.2	1.1	0.75	0.70	0.83	0.72
	4	2	930	73.8	25.8	99.6	1.2	1.2	0.73	0.68	0.84	0.74
	5	2	1086	76.4	22.6	99.0	1.1	1.1	0.77	0.71	0.86	0.76
28	Overall	3	12331	86.0	11.8	97.8	2.3	2.4	0.98	0.97	0.94	0.86
	1	3	5331	85.1	12.6	97.7	2.3	2.3	1.02	1.01	0.94	0.85
	2	3	324	87.7	10.2	97.8	2.4	2.4	0.94	0.96	0.94	0.88
	3	3	4660	85.7	12.2	97.9	2.4	2.4	0.95	0.93	0.93	0.86
	4	3	930	88.2	8.8	97.0	2.4	2.4	0.96	0.96	0.93	0.88
	5	3	1086	89.2	9.2	98.4	2.4	2.4	0.95	0.95	0.95	0.89

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table E-2. NYS Public Schools Grade 4 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
29	Overall	4	12283	48.7	45.8	94.5	2.5	2.3	0.88	0.81	0.68	0.37
	1	4	6976	51.5	44.2	95.7	2.4	2.2	0.88	0.81	0.72	0.51
	2	4	235	54.0	42.6	96.6	2.5	2.3	0.80	0.77	0.71	0.54
	3	4	2764	45.2	48.0	93.3	2.8	2.3	0.84	0.79	0.63	0.45
	4	4	962	44.2	46.6	90.7	2.6	2.2	0.86	0.92	0.47	0.44
	5	4	1346	44.0	49.6	93.6	2.7	2.4	0.86	0.79	0.63	0.44
30	Overall	4	12283	54.6	40.8	95.4	2.8	2.7	0.85	0.92	0.7	0.55
	1	4	6976	55.4	41.7	97.1	2.6	2.6	0.85	0.86	0.78	0.55
	2	4	235	69.8	29.4	99.1	2.6	2.7	0.83	0.80	0.86	0.70
	3	4	2764	57.0	40.3	97.3	2.9	2.9	0.81	0.81	0.76	0.57
	4	4	962	51.4	43.9	95.2	2.8	2.8	0.85	0.87	0.72	0.51
	5	4	1346	45.0	36.6	81.6	3.0	2.4	0.83	1.29	0.17	0.45
31	Overall	3	12283	60.7	36.1	96.8	2.2	2.1	0.71	0.78	0.67	0.61
	1	3	6976	61.6	37.0	98.6	2.1	2.1	0.72	0.73	0.74	0.62
	2	3	235	66.8	31.9	98.7	2.2	2.2	0.70	0.68	0.76	0.67
	3	3	2764	62.8	36.2	99.0	2.4	2.2	0.68	0.71	0.74	0.63
	4	3	962	57.8	37.0	94.8	2.2	2.1	0.67	0.85	0.56	0.58
	5	3	1346	52.1	31.4	83.5	2.3	1.8	0.69	1.02	0.19	0.52

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
Total agreement (%) is the sum of exact and approximate percents.

Table E-3. NYS Public Schools Grade 5 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
12	Overall	2	12539	69.2	28.6	97.9	1.3	1.2	0.74	0.77	0.80	0.53
	1	2	6339	68.2	29.4	97.6	1.3	1.2	0.76	0.79	0.81	0.68
	2	2	199	69.3	29.6	99.0	1.4	1.2	0.69	0.76	0.81	0.69
	3	2	3587	70.1	27.9	98.0	1.4	1.3	0.70	0.72	0.78	0.70
	4	2	631	73.4	24.9	98.3	1.6	1.4	0.61	0.69	0.77	0.73
	5	2	1783	69.7	28.5	98.2	1.3	1.2	0.74	0.76	0.81	0.70
26	Overall	2	12539	73.6	24.9	98.5	1.4	1.3	0.69	0.75	0.83	0.74
	1	2	6339	70.8	27.5	98.3	1.3	1.2	0.70	0.76	0.81	0.71
	2	2	199	77.9	20.1	98.0	1.4	1.4	0.70	0.66	0.82	0.78
	3	2	3587	76.3	22.3	98.6	1.5	1.4	0.66	0.71	0.83	0.76
	4	2	631	83.0	16.6	99.7	1.6	1.6	0.57	0.65	0.86	0.83
	5	2	1783	73.9	24.5	98.4	1.3	1.2	0.71	0.74	0.83	0.74
27	Overall	3	12539	73.3	24.5	97.8	1.8	1.8	1.02	1.03	0.91	0.73
	1	3	6339	74.2	23.9	98.1	1.7	1.6	1.03	1.06	0.92	0.74
	2	3	199	68.3	29.1	97.5	1.9	2.1	0.95	0.90	0.87	0.68
	3	3	3587	72.1	25.3	97.4	2.0	2.1	0.95	0.92	0.88	0.72
	4	3	631	70.7	26.8	97.5	2.2	2.2	0.91	0.89	0.87	0.71
	5	3	1783	74.2	23.7	97.9	1.7	1.8	1.04	1.02	0.92	0.74

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
Total agreement (%) is the sum of exact and approximate percents.

Table E-4. NYS Public Schools Grade 6 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
27	Overall	5	11965	40.6	49.0	89.6	3.4	3.1	1.10	0.96	0.72	0.39
	1	5	6597	40.9	48.8	89.7	3.4	3.1	1.09	0.98	0.72	0.41
	2	5	327	44.0	50.8	94.8	3.2	3.1	1.11	0.89	0.78	0.44
	3	5	1597	39.5	49.0	88.5	3.6	3.2	1.01	0.85	0.65	0.40
	4	5	1513	39.5	49.6	89.2	3.4	3.1	1.09	0.89	0.69	0.40
	5	5	1931	40.8	49.1	89.8	3.5	3.1	1.17	1.01	0.77	0.41
28	Overall	5	11965	39.2	47.8	87.1	3.3	2.8	1.16	1.05	0.69	0.39
	1	5	6597	40.3	48.4	88.7	3.2	2.8	1.16	0.97	0.74	0.40
	2	5	327	28.4	31.8	60.2	3.1	1.8	1.04	1.60	0.19	0.28
	3	5	1597	39.9	45.8	85.7	3.3	2.7	1.13	1.13	0.46	0.40
	4	5	1513	41.2	49.6	90.9	3.2	2.9	1.13	0.98	0.76	0.41
	5	5	1931	35.2	49.0	84.2	3.5	2.9	1.20	1.07	0.73	0.35
29	Overall	3	11965	59.0	37.9	96.9	2.2	2.1	0.72	0.79	0.69	0.59
	1	3	6597	59.7	38.9	98.6	2.1	2.1	0.71	0.74	0.73	0.60
	2	3	327	35.8	29.7	65.4	2.2	1.4	0.65	1.21	0.04	0.36
	3	3	1597	57.4	35.8	93.1	2.2	2.1	0.68	0.86	0.51	0.57
	4	3	1513	58.8	39.4	98.2	2.2	2.3	0.74	0.74	0.73	0.59
	5	3	1931	61.8	36.8	98.7	2.2	2.2	0.77	0.79	0.79	0.62

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
Total agreement (%) is the sum of exact and approximate percents.

Table E-5. NYS Public Schools Grade 7 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
17	Overall	2	11525	62.4	35.6	97.9	1.3	1.1	0.76	0.78	0.78	0.46
	1	2	6514	61.8	35.9	97.7	1.3	1.1	0.78	0.80	0.78	0.62
	2	2	1164	65.5	32.8	98.3	1.5	1.4	0.67	0.69	0.73	0.65
	3	2	643	61.4	35.3	96.7	1.0	0.8	0.81	0.77	0.76	0.61
	4	2	835	60.7	37.5	98.2	1.6	1.3	0.65	0.69	0.69	0.61
	5	2	2369	63.1	35.5	98.6	1.4	1.2	0.72	0.73	0.76	0.63
23	Overall	2	11525	52.9	40.7	93.6	1.3	1.0	0.71	0.74	0.57	0.53
	1	2	6514	52.2	41.2	93.4	1.2	0.9	0.73	0.75	0.57	0.52
	2	2	1164	55.3	38.1	93.5	1.3	1.0	0.69	0.74	0.57	0.55
	3	2	643	53.0	42.1	95.2	1.1	0.9	0.73	0.72	0.61	0.53
	4	2	835	58.6	35.9	94.5	1.4	1.1	0.65	0.72	0.59	0.59
	5	2	2369	51.4	42.0	93.4	1.4	1.0	0.69	0.71	0.50	0.51
32	Overall	2	11525	64.5	34.0	98.5	1.4	1.3	0.65	0.67	0.70	0.65
	1	2	6514	63.5	34.8	98.3	1.4	1.3	0.66	0.68	0.70	0.64
	2	2	1164	67.2	31.6	98.8	1.5	1.5	0.62	0.60	0.67	0.67
	3	2	643	60.3	38.3	98.6	1.2	1.1	0.68	0.70	0.70	0.60
	4	2	835	65.7	33.3	99.0	1.5	1.4	0.60	0.60	0.66	0.66
	5	2	2369	66.8	31.9	98.7	1.5	1.4	0.64	0.63	0.70	0.67
33	Overall	2	11525	75.4	23.5	98.8	1.6	1.6	0.59	0.61	0.76	0.75
	1	2	6514	74.7	24.1	98.8	1.6	1.5	0.60	0.63	0.76	0.75
	2	2	1164	79.0	20.3	99.2	1.7	1.7	0.52	0.54	0.74	0.79
	3	2	643	73.3	25.2	98.4	1.5	1.4	0.66	0.70	0.80	0.73
	4	2	835	76.4	22.9	99.3	1.7	1.7	0.53	0.53	0.70	0.76
	5	2	2369	75.7	23.1	98.8	1.6	1.6	0.59	0.58	0.75	0.76
35	Overall	3	11525	71.9	25.5	97.4	0.8	0.8	0.96	0.97	0.89	0.72
	1	3	6514	74.2	23.5	97.7	0.7	0.7	0.92	0.93	0.89	0.74
	2	3	1164	65.8	31.2	97.0	1.2	1.1	1.01	1.06	0.89	0.66
	3	3	643	80.6	18.0	98.6	0.3	0.3	0.63	0.63	0.83	0.81
	4	3	835	67.9	29.3	97.2	1.2	1.1	0.99	1.00	0.88	0.68
	5	3	2369	67.7	28.9	96.6	1.0	1.0	0.99	1.00	0.87	0.68

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table E-6. NYS Public Schools Grade 8 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
27	Overall	5	13520	42.9	48.5	91.5	3.7	3.3	1.08	1.01	0.76	0.42
	1	5	6375	44.8	47.6	92.3	3.5	3.3	1.10	1.02	0.79	0.45
	2	5	258	37.2	51.2	88.4	3.8	3.3	1.03	1.02	0.72	0.37
	3	5	2283	43.6	49.0	92.6	3.7	3.3	1.08	1.00	0.77	0.44
	4	5	1575	35.4	51.1	86.5	4.1	3.4	0.97	1.06	0.64	0.35
	5	5	3029	43.0	48.7	91.6	3.9	3.5	1.00	0.94	0.72	0.43
28	Overall	5	13520	37.7	49.7	87.4	3.6	3.1	1.13	1.00	0.71	0.38
	1	5	6375	39.1	49.3	88.4	3.4	3.0	1.14	0.98	0.73	0.39
	2	5	258	41.9	46.5	88.4	3.6	3.2	1.09	0.99	0.72	0.42
	3	5	2283	37.7	50.1	87.8	3.7	3.1	1.08	0.99	0.70	0.38
	4	5	1575	28.8	52.6	81.3	3.9	3.1	1.06	1.02	0.60	0.29
	5	5	3029	39.2	49.0	88.2	3.8	3.3	1.10	0.97	0.70	0.39
29	Overall	3	13520	62.2	36.1	98.4	2.3	2.3	0.69	0.73	0.72	0.62
	1	3	6375	62.0	36.6	98.7	2.2	2.2	0.71	0.73	0.74	0.62
	2	3	258	64.3	34.5	98.8	2.3	2.3	0.59	0.68	0.69	0.64
	3	3	2283	61.3	37.1	98.5	2.3	2.3	0.66	0.74	0.71	0.61
	4	3	1575	63.7	33.0	96.8	2.5	2.3	0.66	0.76	0.70	0.64
	5	3	3029	62.3	36.1	98.4	2.3	2.4	0.66	0.70	0.68	0.62

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Appendix F

Item Level Statistics for English Including All Schools in State Without New York City Schools

Table F-1. NYS Public Schools (Without NYC) Grade 3 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
18	Overall	2	8264	97.8	2.1	99.8	1.9	1.9	0.42	0.41	0.96	0.86
	1	2	1264	97.3	2.5	99.8	1.8	1.8	0.48	0.48	0.96	0.97
	2	2	324	98.1	1.5	99.7	1.9	1.9	0.39	0.34	0.95	0.98
	3	2	4660	98.0	2.0	99.9	1.9	1.9	0.38	0.37	0.96	0.98
	4	2	930	97.8	1.8	99.7	1.9	1.9	0.45	0.45	0.96	0.98
	5	2	1086	97.1	2.6	99.7	1.9	1.9	0.48	0.44	0.95	0.97
25	Overall	2	8264	63.3	35.0	98.3	1.2	1.1	0.74	0.68	0.74	0.63
	1	2	1264	62.6	35.8	98.3	1.0	1.1	0.75	0.71	0.75	0.63
	2	2	324	58.6	40.1	98.8	1.1	1.1	0.78	0.65	0.72	0.59
	3	2	4660	62.6	35.6	98.2	1.2	1.1	0.73	0.68	0.73	0.63
	4	2	930	63.3	34.5	97.8	1.2	1.1	0.73	0.70	0.73	0.63
	5	2	1086	68.5	30.4	98.9	1.1	1.1	0.73	0.67	0.79	0.69
26	Overall	2	8264	73.2	25.8	99.0	1.2	1.1	0.76	0.70	0.84	0.73
	1	2	1264	73.3	25.0	98.3	1.1	1.1	0.76	0.72	0.83	0.73
	2	2	324	79.0	20.7	99.7	1.2	1.1	0.76	0.68	0.88	0.79
	3	2	4660	71.9	27.0	98.9	1.2	1.1	0.75	0.70	0.83	0.72
	4	2	930	73.8	25.8	99.6	1.2	1.2	0.73	0.68	0.84	0.74
	5	2	1086	76.4	22.6	99.0	1.1	1.1	0.77	0.71	0.86	0.76
28	Overall	3	8264	86.6	11.3	97.9	2.4	2.4	0.97	0.95	0.94	0.87
	1	3	1264	86.3	11.8	98.1	2.3	2.3	1.05	1.02	0.95	0.86
	2	3	324	87.7	10.2	97.8	2.4	2.4	0.94	0.96	0.94	0.88
	3	3	4660	85.7	12.2	97.9	2.4	2.4	0.95	0.93	0.93	0.86
	4	3	930	88.2	8.8	97.0	2.4	2.4	0.96	0.96	0.93	0.88
	5	3	1086	89.2	9.2	98.4	2.4	2.4	0.95	0.95	0.95	0.89

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table F-2. NYS Public Schools (Without NYC) Grade 4 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
29	Overall	4	8019	47.6	46.3	93.9	2.6	2.3	0.87	0.81	0.65	0.37
	1	4	2712	52.5	43.1	95.6	2.4	2.3	0.87	0.80	0.72	0.52
	2	4	235	54.0	42.6	96.6	2.5	2.3	0.80	0.77	0.71	0.54
	3	4	2764	45.2	48.0	93.3	2.8	2.3	0.84	0.79	0.63	0.45
	4	4	962	44.2	46.6	90.7	2.6	2.2	0.86	0.92	0.47	0.44
	5	4	1346	44.0	49.6	93.6	2.7	2.4	0.86	0.79	0.63	0.44
30	Overall	4	8019	54.2	40.3	94.5	2.8	2.7	0.86	0.95	0.66	0.54
	1	4	2712	55.7	41.7	97.4	2.6	2.7	0.87	0.86	0.79	0.56
	2	4	235	69.8	29.4	99.1	2.6	2.7	0.83	0.80	0.86	0.70
	3	4	2764	57.0	40.3	97.3	2.9	2.9	0.81	0.81	0.76	0.57
	4	4	962	51.4	43.9	95.2	2.8	2.8	0.85	0.87	0.72	0.51
	5	4	1346	45.0	36.6	81.6	3.0	2.4	0.83	1.29	0.17	0.45
31	Overall	3	8019	60.1	35.6	95.7	2.2	2.1	0.72	0.81	0.64	0.60
	1	3	2712	61.5	36.8	98.3	2.0	2.1	0.75	0.75	0.76	0.62
	2	3	235	66.8	31.9	98.7	2.2	2.2	0.70	0.68	0.76	0.67
	3	3	2764	62.8	36.2	99.0	2.4	2.2	0.68	0.71	0.74	0.63
	4	3	962	57.8	37.0	94.8	2.2	2.1	0.67	0.85	0.56	0.58
	5	3	1346	52.1	31.4	83.5	2.3	1.8	0.69	1.02	0.19	0.52

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table F-3. NYS Public Schools (Without NYC) Grade 5 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
12	Overall	2	7929	70.7	27.4	98.0	1.4	1.3	0.73	0.75	0.81	0.54
	1	2	1729	71.9	25.7	97.7	1.2	1.2	0.78	0.78	0.83	0.72
	2	2	199	69.3	29.6	99.0	1.4	1.2	0.69	0.76	0.81	0.69
	3	2	3587	70.1	27.9	98.0	1.4	1.3	0.70	0.72	0.78	0.70
	4	2	631	73.4	24.9	98.3	1.6	1.4	0.61	0.69	0.77	0.73
	5	2	1783	69.7	28.5	98.2	1.3	1.2	0.74	0.76	0.81	0.70
26	Overall	2	7929	75.4	23.2	98.6	1.4	1.3	0.69	0.74	0.84	0.75
	1	2	1729	71.9	26.5	98.4	1.3	1.1	0.72	0.75	0.82	0.72
	2	2	199	77.9	20.1	98.0	1.4	1.4	0.70	0.66	0.82	0.78
	3	2	3587	76.3	22.3	98.6	1.5	1.4	0.66	0.71	0.83	0.76
	4	2	631	83.0	16.6	99.7	1.6	1.6	0.57	0.65	0.86	0.83
	5	2	1783	73.9	24.5	98.4	1.3	1.2	0.71	0.74	0.83	0.74
27	Overall	3	7929	72.9	24.7	97.5	1.9	2.0	0.99	0.99	0.90	0.73
	1	3	1729	74.4	23.1	97.5	1.8	1.9	1.02	1.06	0.91	0.74
	2	3	199	68.3	29.1	97.5	1.9	2.1	0.95	0.90	0.87	0.68
	3	3	3587	72.1	25.3	97.4	2.0	2.1	0.95	0.92	0.88	0.72
	4	3	631	70.7	26.8	97.5	2.2	2.2	0.91	0.89	0.87	0.71
	5	3	1783	74.2	23.7	97.9	1.7	1.8	1.04	1.02	0.92	0.74

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table F-4. NYS Public Schools (Without NYC) Grade 6 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
27	Overall	5	7341	40.9	49.2	90.2	3.5	3.1	1.10	0.93	0.72	0.40
	1	5	1973	42.9	49.0	91.8	3.4	3.2	1.09	0.94	0.74	0.43
	2	5	327	44.0	50.8	94.8	3.2	3.1	1.11	0.89	0.78	0.44
	3	5	1597	39.5	49.0	88.5	3.6	3.2	1.01	0.85	0.65	0.40
	4	5	1513	39.5	49.6	89.2	3.4	3.1	1.09	0.89	0.69	0.40
	5	5	1931	40.8	49.1	89.8	3.5	3.1	1.17	1.01	0.77	0.41
28	Overall	5	7341	38.2	48.2	86.5	3.3	2.8	1.15	1.10	0.66	0.38
	1	5	1973	39.1	51.2	90.3	3.3	3.0	1.14	0.98	0.74	0.39
	2	5	327	28.4	31.8	60.2	3.1	1.8	1.04	1.60	0.19	0.28
	3	5	1597	39.9	45.8	85.7	3.3	2.7	1.13	1.13	0.46	0.40
	4	5	1513	41.2	49.6	90.9	3.2	2.9	1.13	0.98	0.76	0.41
	5	5	1931	35.2	49.0	84.2	3.5	2.9	1.20	1.07	0.73	0.35
29	Overall	3	7341	59.4	36.4	95.8	2.2	2.1	0.73	0.82	0.68	0.59
	1	3	1973	63.0	35.4	98.4	2.2	2.2	0.72	0.75	0.75	0.63
	2	3	327	35.8	29.7	65.4	2.2	1.4	0.65	1.21	0.04	0.36
	3	3	1597	57.4	35.8	93.1	2.2	2.1	0.68	0.86	0.51	0.57
	4	3	1513	58.8	39.4	98.2	2.2	2.3	0.74	0.74	0.73	0.59
	5	3	1931	61.8	36.8	98.7	2.2	2.2	0.77	0.79	0.79	0.62

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table F-5. NYS Public Schools (Without NYC) Grade 7 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
17	Overall	2	6949	62.2	35.9	98.1	1.4	1.2	0.74	0.75	0.76	0.43
	1	2	1938	60.1	37.7	97.7	1.3	1.1	0.76	0.76	0.75	0.60
	2	2	1164	65.5	32.8	98.3	1.5	1.4	0.67	0.69	0.73	0.65
	3	2	643	61.4	35.3	96.7	1.0	0.8	0.81	0.77	0.76	0.61
	4	2	835	60.7	37.5	98.2	1.6	1.3	0.65	0.69	0.69	0.61
	5	2	2369	63.1	35.5	98.6	1.4	1.2	0.72	0.73	0.76	0.63
23	Overall	2	6949	54.1	39.7	93.8	1.3	1.0	0.70	0.73	0.56	0.54
	1	2	1938	55.1	38.6	93.7	1.2	1.0	0.71	0.74	0.58	0.55
	2	2	1164	55.3	38.1	93.5	1.3	1.0	0.69	0.74	0.57	0.55
	3	2	643	53.0	42.1	95.2	1.1	0.9	0.73	0.72	0.61	0.53
	4	2	835	58.6	35.9	94.5	1.4	1.1	0.65	0.72	0.59	0.59
	5	2	2369	51.4	42.0	93.4	1.4	1.0	0.69	0.71	0.50	0.51
32	Overall	2	6949	65.5	33.2	98.7	1.4	1.4	0.64	0.65	0.70	0.66
	1	2	1938	64.6	33.9	98.5	1.4	1.3	0.63	0.68	0.70	0.65
	2	2	1164	67.2	31.6	98.8	1.5	1.5	0.62	0.60	0.67	0.67
	3	2	643	60.3	38.3	98.6	1.2	1.1	0.68	0.70	0.70	0.60
	4	2	835	65.7	33.3	99.0	1.5	1.4	0.60	0.60	0.66	0.66
	5	2	2369	66.8	31.9	98.7	1.5	1.4	0.64	0.63	0.70	0.67
33	Overall	2	6949	76.8	22.2	99.0	1.6	1.6	0.58	0.59	0.76	0.77
	1	2	1938	78.2	21.1	99.3	1.6	1.6	0.59	0.59	0.79	0.78
	2	2	1164	79.0	20.3	99.2	1.7	1.7	0.52	0.54	0.74	0.79
	3	2	643	73.3	25.2	98.4	1.5	1.4	0.66	0.70	0.80	0.73
	4	2	835	76.4	22.9	99.3	1.7	1.7	0.53	0.53	0.70	0.76
	5	2	2369	75.7	23.1	98.8	1.6	1.6	0.59	0.58	0.75	0.76
35	Overall	3	6949	70.3	26.9	97.2	1.0	0.9	0.99	1.00	0.89	0.70
	1	3	1938	73.8	23.8	97.6	0.9	0.9	0.98	0.99	0.90	0.74
	2	3	1164	65.8	31.2	97.0	1.2	1.1	1.01	1.06	0.89	0.66
	3	3	643	80.6	18.0	98.6	0.3	0.3	0.63	0.63	0.83	0.81
	4	3	835	67.9	29.3	97.2	1.2	1.1	0.99	1.00	0.88	0.68
	5	3	2369	67.7	28.9	96.6	1.0	1.0	0.99	1.00	0.87	0.68

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table F-6. NYS Public Schools (Without NYC) Grade 8 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
27	Overall	5	8897	42.5	48.9	91.4	3.8	3.4	1.04	0.99	0.74	0.42
	1	5	1752	47.4	46.6	94.1	3.7	3.5	1.05	0.97	0.79	0.47
	2	5	258	37.2	51.2	88.4	3.8	3.3	1.03	1.02	0.72	0.37
	3	5	2283	43.6	49.0	92.6	3.7	3.3	1.08	1.00	0.77	0.44
	4	5	1575	35.4	51.1	86.5	4.1	3.4	0.97	1.06	0.64	0.35
	5	5	3029	43.0	48.7	91.6	3.9	3.5	1.00	0.94	0.72	0.43
28	Overall	5	8897	36.9	50.2	87.1	3.8	3.2	1.09	0.98	0.68	0.37
	1	5	1752	38.5	50.9	89.3	3.7	3.2	1.07	0.93	0.70	0.38
	2	5	258	41.9	46.5	88.4	3.6	3.2	1.09	0.99	0.72	0.42
	3	5	2283	37.7	50.1	87.8	3.7	3.1	1.08	0.99	0.70	0.38
	4	5	1575	28.8	52.6	81.3	3.9	3.1	1.06	1.02	0.60	0.29
	5	5	3029	39.2	49.0	88.2	3.8	3.3	1.10	0.97	0.70	0.39
29	Overall	3	8897	62.6	35.5	98.1	2.3	2.3	0.67	0.73	0.71	0.63
	1	3	1752	63.5	34.9	98.4	2.3	2.3	0.69	0.72	0.73	0.64
	2	3	258	64.3	34.5	98.8	2.3	2.3	0.59	0.68	0.69	0.64
	3	3	2283	61.3	37.1	98.5	2.3	2.3	0.66	0.74	0.71	0.61
	4	3	1575	63.7	33.0	96.8	2.5	2.3	0.66	0.76	0.70	0.64
	5	3	3029	62.3	36.1	98.4	2.3	2.4	0.66	0.70	0.68	0.62

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Appendix G

Item Level Statistics for English Including New York City Schools Only

Table G-1. NYC Public Schools Grades 3 - 8 ELA Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
Grade 3												
18	NYC	2	4067	97.1	2.6	99.7	1.8	1.8	0.51	0.48	0.96	0.97
25	NYC	2	4067	61.2	36.3	97.6	1.1	1.0	0.72	0.70	0.70	0.61
26	NYC	2	4067	68.1	30.9	99.0	1.1	1.0	0.75	0.67	0.79	0.68
28	NYC	3	4067	84.7	12.9	97.6	2.3	2.3	1.01	1.01	0.94	0.85
Grade 4												
29	NYC	4	4264	50.9	44.8	95.7	2.4	2.2	0.88	0.81	0.72	0.51
30	NYC	4	4264	55.2	41.8	97.0	2.6	2.6	0.84	0.86	0.77	0.55
31	NYC	3	4264	61.7	37.1	98.8	2.2	2.1	0.69	0.71	0.73	0.62
Grade 5												
12	NYC	2	4610	66.8	30.8	97.6	1.3	1.2	0.75	0.79	0.80	0.67
26	NYC	2	4610	70.5	27.9	98.3	1.3	1.2	0.70	0.76	0.81	0.70
27	NYC	3	4610	74.1	24.2	98.3	1.6	1.6	1.02	1.04	0.92	0.74
Grade 6												
27	NYC	5	4624	40.1	48.7	88.8	3.4	3.0	1.09	1.00	0.72	0.40
28	NYC	5	4624	40.9	47.2	88.1	3.1	2.8	1.16	0.96	0.73	0.41
29	NYC	3	4624	58.3	40.4	98.7	2.1	2.1	0.70	0.73	0.71	0.58
Grade 7												
17	NYC	2	4576	62.6	35.1	97.7	1.3	1.0	0.79	0.81	0.80	0.63
23	NYC	2	4576	51.0	42.3	93.2	1.2	0.9	0.73	0.75	0.57	0.51
32	NYC	2	4576	63.1	35.2	98.3	1.4	1.3	0.67	0.69	0.71	0.63
33	NYC	2	4576	73.1	25.4	98.6	1.6	1.5	0.61	0.64	0.75	0.73
35	NYC	3	4576	74.3	23.4	97.8	0.7	0.6	0.89	0.90	0.88	0.74
Grade 8												
27	NYC	5	4623	43.8	47.9	91.7	3.4	3.2	1.11	1.02	0.78	0.44
28	NYC	5	4623	39.3	48.7	88.0	3.3	2.8	1.14	0.98	0.72	0.39
29	NYC	3	4623	61.5	37.3	98.8	2.2	2.2	0.71	0.74	0.75	0.61

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
Total agreement (%) is the sum of exact and approximate percents.

Appendix H

Item Level Statistics for Mathematics Including All Schools in State

Table H-1. NYS Public Schools Grade 3 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
26	Overall	2	12244	96.1	3.7	99.8	1.8	1.8	0.47	0.50	0.95	0.85
	1	2	5544	96.0	3.9	99.8	1.8	1.8	0.47	0.50	0.95	0.96
	2	2	243	97.9	1.2	99.2	1.9	1.8	0.42	0.46	0.94	0.98
	3	2	3682	96.4	3.5	99.9	1.8	1.8	0.45	0.49	0.95	0.96
	4	2	908	94.1	5.8	99.9	1.8	1.8	0.48	0.58	0.94	0.94
	5	2	1867	96.8	2.9	99.8	1.8	1.8	0.50	0.49	0.96	0.97
27	Overall	2	12244	80.3	19.6	99.9	1.2	1.2	0.61	0.62	0.85	0.80
	1	2	5544	81.3	18.7	99.9	1.2	1.2	0.62	0.62	0.86	0.81
	2	2	243	74.9	25.1	100.0	1.3	1.2	0.65	0.61	0.82	0.75
	3	2	3682	79.9	19.9	99.8	1.2	1.3	0.60	0.62	0.84	0.80
	4	2	908	77.1	22.7	99.8	1.3	1.2	0.63	0.59	0.81	0.77
	5	2	1867	80.4	19.4	99.8	1.2	1.2	0.59	0.60	0.83	0.80
28	Overall	3	12244	89.2	10.2	99.4	2.2	2.2	0.94	0.94	0.96	0.89
	1	3	5544	90.0	9.6	99.6	2.2	2.1	0.95	0.96	0.97	0.90
	2	3	243	88.5	10.3	98.8	2.2	2.1	0.91	0.90	0.95	0.88
	3	3	3682	88.3	10.9	99.2	2.2	2.2	0.92	0.93	0.96	0.88
	4	3	908	89.0	10.4	99.3	2.1	2.1	0.94	0.95	0.96	0.89
	5	3	1867	88.6	10.6	99.2	2.2	2.2	0.93	0.93	0.96	0.89
29	Overall	3	12244	83.2	16.2	99.3	2.3	2.2	0.73	0.74	0.90	0.83
	1	3	5544	84.3	15.1	99.4	2.2	2.2	0.76	0.76	0.92	0.84
	2	3	243	75.3	24.7	100.0	2.3	2.3	0.62	0.66	0.83	0.75
	3	3	3682	83.0	16.3	99.3	2.3	2.3	0.70	0.71	0.89	0.83
	4	3	908	78.4	20.9	99.3	2.3	2.4	0.72	0.74	0.88	0.78
	5	3	1867	83.7	15.6	99.3	2.3	2.3	0.72	0.70	0.90	0.84
30	Overall	2	12244	89.6	9.9	99.5	1.7	1.6	0.66	0.69	0.93	0.90
	1	2	5544	87.3	12.3	99.6	1.5	1.5	0.73	0.75	0.93	0.87
	2	2	243	93.0	6.2	99.2	1.7	1.7	0.58	0.63	0.93	0.93
	3	2	3682	91.6	8.0	99.6	1.7	1.7	0.56	0.60	0.92	0.92
	4	2	908	92.0	6.9	98.9	1.7	1.7	0.62	0.67	0.93	0.92
	5	2	1867	91.2	8.4	99.6	1.7	1.7	0.58	0.63	0.93	0.91
31	Overall	2	12244	80.9	18.5	99.4	1.3	1.3	0.75	0.75	0.90	0.81
	1	2	5544	80.7	18.6	99.3	1.2	1.2	0.76	0.77	0.90	0.81
	2	2	243	74.9	23.9	98.8	1.4	1.3	0.69	0.72	0.83	0.75
	3	2	3682	80.8	18.5	99.3	1.3	1.3	0.73	0.73	0.89	0.81
	4	2	908	82.9	16.7	99.7	1.3	1.3	0.75	0.73	0.91	0.83
	5	2	1867	81.4	18.3	99.6	1.3	1.4	0.71	0.72	0.89	0.81

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table H-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
31	Overall	2	11700	90.0	9.8	99.8	1.5	1.6	0.72	0.69	0.94	0.81
	1	2	6827	88.9	10.8	99.7	1.5	1.5	0.75	0.72	0.94	0.89
	2	2	164	92.1	7.9	100.0	1.6	1.6	0.68	0.73	0.96	0.92
	3	2	1879	92.0	8.0	99.9	1.6	1.6	0.67	0.64	0.95	0.92
	4	2	821	91.1	8.5	99.6	1.6	1.6	0.66	0.65	0.94	0.91
	5	2	2009	91.4	8.4	99.9	1.6	1.7	0.66	0.63	0.94	0.91
32	Overall	3	11700	89.4	10.0	99.4	2.7	2.7	0.65	0.68	0.92	0.89
	1	3	6827	89.3	10.1	99.3	2.7	2.7	0.68	0.72	0.93	0.89
	2	3	164	88.4	11.6	100.0	2.7	2.7	0.61	0.71	0.93	0.88
	3	3	1879	90.2	9.4	99.6	2.7	2.7	0.63	0.67	0.93	0.90
	4	3	821	90.3	9.3	99.5	2.8	2.8	0.62	0.57	0.90	0.90
	5	3	2009	89.1	10.5	99.6	2.8	2.8	0.57	0.62	0.90	0.89
33	Overall	2	11700	85.8	14.0	99.8	1.0	1.0	0.71	0.70	0.92	0.86
	1	2	6827	85.4	14.4	99.8	0.9	1.0	0.72	0.70	0.92	0.85
	2	2	164	82.9	17.1	100.0	1.1	1.1	0.73	0.74	0.92	0.83
	3	2	1879	86.9	12.9	99.7	1.1	1.1	0.67	0.66	0.91	0.87
	4	2	821	83.9	16.0	99.9	1.1	1.1	0.70	0.72	0.91	0.84
	5	2	2009	87.2	12.6	99.8	1.2	1.1	0.69	0.73	0.93	0.87
34	Overall	2	11700	90.8	9.1	99.9	1.4	1.4	0.70	0.67	0.95	0.91
	1	2	6827	89.0	10.8	99.8	1.3	1.4	0.73	0.69	0.94	0.89
	2	2	164	95.1	4.9	100.0	1.5	1.5	0.65	0.68	0.97	0.95
	3	2	1879	91.8	8.2	99.9	1.5	1.5	0.66	0.66	0.95	0.92
	4	2	821	93.2	6.8	100.0	1.5	1.6	0.65	0.63	0.96	0.93
	5	2	2009	94.8	5.1	99.9	1.5	1.5	0.65	0.64	0.97	0.95
35	Overall	2	11700	94.2	5.4	99.5	1.5	1.5	0.82	0.82	0.97	0.94
	1	2	6827	94.0	5.4	99.4	1.5	1.5	0.84	0.84	0.97	0.94
	2	2	164	95.7	4.3	100.0	1.5	1.5	0.85	0.85	0.99	0.96
	3	2	1879	94.8	4.8	99.6	1.6	1.6	0.79	0.78	0.97	0.95
	4	2	821	93.9	5.8	99.8	1.6	1.6	0.76	0.77	0.97	0.94
	5	2	2009	94.1	5.5	99.6	1.6	1.6	0.77	0.78	0.97	0.94
36	Overall	2	11700	88.1	11.2	99.3	1.2	1.3	0.90	0.92	0.96	0.88
	1	2	6827	88.0	11.3	99.3	1.1	1.1	0.92	0.95	0.96	0.88
	2	2	164	86.0	14.0	100.0	1.3	1.2	0.89	0.91	0.96	0.86
	3	2	1879	86.4	13.2	99.6	1.3	1.4	0.85	0.86	0.95	0.86
	4	2	821	87.1	12.2	99.3	1.4	1.5	0.82	0.84	0.94	0.87
	5	2	2009	90.7	8.4	99.1	1.4	1.4	0.86	0.87	0.96	0.91
37	Overall	2	11700	92.4	7.2	99.6	1.2	1.2	0.88	0.89	0.97	0.92
	1	2	6827	92.5	7.1	99.7	1.1	1.1	0.89	0.89	0.97	0.93
	2	2	164	94.5	5.5	100.0	1.3	1.3	0.87	0.89	0.98	0.95
	3	2	1879	92.0	7.9	99.8	1.2	1.2	0.87	0.86	0.97	0.92
	4	2	821	90.7	8.9	99.6	1.2	1.2	0.86	0.87	0.96	0.91
	5	2	2009	93.0	6.3	99.3	1.3	1.3	0.87	0.88	0.97	0.93

Table H-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Inter-rater Agreement (Continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
38	Overall	3	11700	70.6	27.7	98.3	2.3	2.4	0.78	0.77	0.83	0.71
	1	3	6827	69.1	28.9	98.0	2.3	2.3	0.81	0.81	0.83	0.69
	2	3	164	73.2	25.6	98.8	2.3	2.3	0.79	0.74	0.85	0.73
	3	3	1879	70.5	28.0	98.5	2.5	2.5	0.74	0.72	0.81	0.71
	4	3	821	72.0	26.2	98.2	2.4	2.5	0.74	0.71	0.81	0.72
	5	3	2009	75.0	24.3	99.3	2.5	2.5	0.71	0.70	0.84	0.75
39	Overall	2	11700	89.1	10.5	99.6	1.4	1.4	0.81	0.82	0.95	0.89
	1	2	6827	89.1	10.6	99.6	1.3	1.3	0.85	0.85	0.96	0.89
	2	2	164	88.4	11.6	100.0	1.4	1.4	0.78	0.83	0.95	0.88
	3	2	1879	89.0	10.9	99.9	1.4	1.5	0.76	0.78	0.95	0.89
	4	2	821	90.1	9.7	99.9	1.5	1.5	0.74	0.75	0.95	0.90
	5	2	2009	89.0	10.3	99.3	1.5	1.5	0.73	0.74	0.93	0.89
40	Overall	2	11700	96.7	3.2	99.8	1.7	1.7	0.64	0.64	0.98	0.97
	1	2	6827	96.4	3.4	99.9	1.6	1.6	0.69	0.69	0.98	0.96
	2	2	164	97.0	3.0	100.0	1.8	1.8	0.54	0.52	0.97	0.97
	3	2	1879	96.8	3.0	99.8	1.7	1.7	0.60	0.60	0.97	0.97
	4	2	821	97.1	2.7	99.8	1.8	1.8	0.55	0.56	0.97	0.97
	5	2	2009	97.2	2.7	99.9	1.8	1.8	0.56	0.56	0.97	0.97
41	Overall	2	11700	91.4	8.2	99.7	1.6	1.6	0.70	0.71	0.95	0.91
	1	2	6827	90.3	9.3	99.6	1.6	1.6	0.75	0.76	0.95	0.90
	2	2	164	92.7	6.7	99.4	1.7	1.7	0.65	0.67	0.94	0.93
	3	2	1879	92.5	7.2	99.7	1.7	1.7	0.65	0.66	0.95	0.93
	4	2	821	94.0	5.7	99.8	1.8	1.8	0.56	0.56	0.94	0.94
	5	2	2009	92.9	6.7	99.6	1.7	1.7	0.60	0.61	0.94	0.93
42	Overall	2	11700	88.8	10.9	99.7	1.1	1.1	0.86	0.86	0.96	0.89
	1	2	6827	88.1	11.6	99.7	1.0	1.0	0.86	0.87	0.96	0.88
	2	2	164	86.6	12.8	99.4	1.2	1.2	0.82	0.84	0.94	0.87
	3	2	1879	90.4	9.3	99.7	1.1	1.1	0.84	0.84	0.96	0.90
	4	2	821	90.0	9.6	99.6	1.3	1.2	0.82	0.86	0.96	0.90
	5	2	2009	89.5	10.3	99.8	1.3	1.3	0.82	0.81	0.96	0.89
43	Overall	2	11700	87.0	12.6	99.6	1.2	1.1	0.86	0.88	0.95	0.87
	1	2	6827	86.6	13.1	99.7	1.1	1.1	0.86	0.89	0.95	0.87
	2	2	164	87.2	12.8	100.0	1.2	1.2	0.86	0.88	0.96	0.87
	3	2	1879	88.0	11.6	99.6	1.2	1.2	0.84	0.87	0.95	0.88
	4	2	821	85.7	13.3	99.0	1.3	1.3	0.81	0.87	0.94	0.86
	5	2	2009	88.0	11.7	99.7	1.3	1.3	0.84	0.85	0.95	0.88

Table H-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Inter-rater Agreement (Continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
44	Overall	2	11700	92.7	7.1	99.8	1.6	1.6	0.65	0.66	0.95	0.93
	1	2	6827	91.4	8.4	99.8	1.6	1.5	0.67	0.68	0.95	0.91
	2	2	164	96.3	3.7	100.0	1.6	1.6	0.67	0.64	0.98	0.96
	3	2	1879	93.7	6.2	99.9	1.6	1.6	0.62	0.64	0.96	0.94
	4	2	821	94.8	4.9	99.6	1.7	1.7	0.55	0.60	0.95	0.95
	5	2	2009	95.1	4.7	99.9	1.7	1.7	0.60	0.60	0.96	0.95
45	Overall	3	11700	87.0	12.0	99.0	2.5	2.5	0.89	0.91	0.95	0.87
	1	3	6827	87.0	12.2	99.2	2.4	2.5	0.92	0.92	0.95	0.87
	2	3	164	93.9	6.1	100.0	2.5	2.5	0.90	0.89	0.98	0.94
	3	3	1879	86.3	12.5	98.8	2.5	2.5	0.87	0.89	0.94	0.86
	4	3	821	88.1	10.4	98.4	2.6	2.5	0.82	0.88	0.94	0.88
	5	3	2009	86.9	12.0	99.0	2.5	2.5	0.86	0.87	0.94	0.87
46	Overall	2	11700	82.1	17.8	99.8	1.0	1.1	0.63	0.64	0.87	0.82
	1	2	6827	85.0	14.9	99.9	1.0	1.0	0.62	0.60	0.88	0.85
	2	2	164	78.0	22.0	100.0	1.0	1.1	0.67	0.71	0.87	0.78
	3	2	1879	78.3	21.4	99.7	1.0	1.1	0.65	0.67	0.85	0.78
	4	2	821	72.5	27.4	99.9	1.1	1.2	0.64	0.71	0.82	0.72
	5	2	2009	80.0	19.9	99.9	1.1	1.2	0.66	0.67	0.87	0.80
47	Overall	3	11700	81.4	17.7	99.2	2.3	2.2	1.03	1.05	0.95	0.81
	1	3	6827	81.0	18.2	99.3	2.2	2.1	1.08	1.09	0.95	0.81
	2	3	164	75.0	23.2	98.2	2.3	2.2	1.02	1.07	0.92	0.75
	3	3	1879	81.3	17.3	98.6	2.3	2.3	0.99	1.01	0.94	0.81
	4	3	821	83.6	16.0	99.5	2.5	2.5	0.84	0.85	0.93	0.84
	5	3	2009	82.5	16.7	99.3	2.4	2.4	0.95	0.96	0.94	0.83
48	Overall	2	11700	86.9	12.8	99.7	1.3	1.3	0.80	0.84	0.95	0.87
	1	2	6827	85.5	14.2	99.6	1.2	1.2	0.82	0.84	0.94	0.85
	2	2	164	87.8	12.2	100.0	1.3	1.2	0.82	0.86	0.96	0.88
	3	2	1879	86.9	12.8	99.6	1.4	1.3	0.76	0.83	0.94	0.87
	4	2	821	88.4	11.6	100.0	1.5	1.4	0.72	0.80	0.95	0.88
	5	2	2009	91.2	8.7	99.9	1.4	1.4	0.77	0.79	0.96	0.91

Approximate agreement (%) is the percent of pairs of readers that differ by one score point. Total agreement (%) is the sum of exact and approximate percents.

Table H-3. NYS Public Schools Grade 5 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
27	Overall	2	12422	89.8	8.8	98.5	1.5	1.5	0.79	0.81	0.94	0.80
	1	2	5487	90.6	9.1	99.7	1.5	1.5	0.80	0.83	0.96	0.91
	2	2	205	90.7	9.3	1.0	1.4	1.4	0.81	0.80	0.96	0.91
	3	2	2771	92.4	7.4	99.8	1.6	1.6	0.71	0.74	0.96	0.92
	4	2	372	96.2	3.8	1.0	1.7	1.7	0.65	0.66	0.98	0.96
	5	2	3344	89.9	9.7	99.6	1.5	1.5	0.77	0.81	0.95	0.90
28	Overall	3	12422	89.0	7.8	96.9	2.5	2.6	0.89	0.85	0.90	0.89
	1	3	5487	91.3	6.8	98.1	2.6	2.6	0.80	0.85	0.94	0.91
	2	3	205	94.6	4.9	99.5	2.3	2.3	1.01	1.03	0.98	0.95
	3	3	2771	89.7	8.7	98.4	2.6	2.6	0.77	0.81	0.94	0.90
	4	3	372	91.4	4.0	95.4	2.5	2.5	0.92	0.91	0.93	0.91
	5	3	3344	90.0	9.1	99.1	2.5	2.6	0.87	0.86	0.95	0.90
29	Overall	3	12422	85.0	11.6	96.6	1.3	1.3	1.36	1.36	0.96	0.85
	1	3	5487	86.6	10.8	97.4	1.2	1.2	1.35	1.35	0.97	0.87
	2	3	205	89.8	9.3	99.0	1.0	0.9	1.25	1.25	0.98	0.90
	3	3	2771	84.8	12.1	96.9	1.5	1.5	1.37	1.37	0.96	0.85
	4	3	372	84.9	12.6	97.6	1.7	1.6	1.35	1.35	0.97	0.85
	5	3	3344	84.7	12.7	97.4	1.3	1.3	1.36	1.36	0.97	0.85
30	Overall	2	12422	79.2	17.7	96.9	1.2	1.3	0.89	0.88	0.89	0.79
	1	2	5487	77.5	19.6	97.2	1.2	1.2	0.89	0.88	0.89	0.78
	2	2	205	77.1	19.0	96.1	1.0	1.0	0.92	0.91	0.89	0.77
	3	2	2771	82.6	15.4	98.1	1.3	1.4	0.84	0.86	0.91	0.83
	4	2	372	87.9	11.6	99.5	1.6	1.5	0.75	0.81	0.94	0.88
	5	2	3344	81.2	17.0	98.2	1.2	1.2	0.89	0.89	0.92	0.81
31	Overall	2	12422	93.0	6.3	99.4	1.3	1.3	0.60	0.59	0.93	0.93
	1	2	5487	94.3	5.7	99.9	1.3	1.3	0.58	0.59	0.95	0.94
	2	2	205	96.1	3.9	1.0	1.3	1.3	0.61	0.60	0.97	0.96
	3	2	2771	95.2	4.7	99.9	1.3	1.4	0.57	0.57	0.96	0.95
	4	2	372	94.6	5.4	1.0	1.4	1.4	0.58	0.54	0.95	0.95
	5	2	3344	94.7	5.3	1.0	1.3	1.3	0.59	0.59	0.96	0.95
32	Overall	2	12422	83.6	15.4	99.0	0.9	0.9	0.85	0.88	0.93	0.84
	1	2	5487	85.3	14.2	99.5	0.8	0.8	0.84	0.87	0.94	0.85
	2	2	205	86.8	13.2	1.0	0.6	0.4	0.77	0.74	0.94	0.87
	3	2	2771	82.9	16.5	99.4	1.1	1.0	0.85	0.88	0.93	0.83
	4	2	372	80.1	18.8	98.9	0.9	0.9	0.84	0.90	0.92	0.80
	5	2	3344	83.7	15.6	99.3	0.9	0.8	0.86	0.88	0.94	0.84

Table H-3. NYS Public Schools Grade 5 Mathematics Operational Test 2006: Inter-rater Agreement (Continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
33	Overall	3	12422	59.8	34.0	93.8	2.0	2.0	1.00	1.01	0.81	0.60
	1	3	5487	58.5	35.7	94.3	1.9	2.0	0.98	1.01	0.82	0.59
	2	3	205	55.6	38.5	94.1	1.9	1.8	1.14	1.02	0.85	0.56
	3	3	2771	63.6	31.8	95.4	2.1	2.1	0.94	0.96	0.83	0.64
	4	3	372	66.7	30.6	97.3	2.3	2.2	0.82	0.96	0.85	0.67
	5	3	3344	61.4	34.1	95.5	2.1	2.1	0.96	1.02	0.84	0.61
34	Overall	3	12422	77.6	18.8	96.4	2.2	2.2	0.99	1.04	0.89	0.78
	1	3	5487	75.8	22.2	97.9	2.2	2.1	0.97	1.05	0.91	0.76
	2	3	205	81.0	15.6	96.6	2.2	2.0	1.00	1.16	0.93	0.81
	3	3	2771	82.1	15.4	97.5	2.4	2.4	0.88	0.97	0.91	0.82
	4	3	372	83.3	15.1	98.4	2.5	2.4	0.88	0.89	0.93	0.83
	5	3	3344	80.4	17.0	97.4	2.3	2.2	0.97	1.04	0.92	0.80

Approximate agreement (%) is the percent of pairs of readers that differ by one score point. Total agreement (%) is the sum of exact and approximate percents.

Table H-4. NYS Public Schools Grade 6 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
26	Overall	2	11895	92.4	7.4	99.8	1.4	1.4	0.82	0.82	0.97	0.86
	1	2	6128	92.1	7.6	99.8	1.4	1.4	0.84	0.84	0.97	0.92
	2	2	205	93.7	6.3	100.0	1.5	1.5	0.82	0.80	0.98	0.94
	3	2	1898	92.4	7.5	99.9	1.5	1.5	0.78	0.78	0.97	0.92
	4	2	1303	91.1	8.7	99.8	1.5	1.4	0.81	0.83	0.96	0.91
	5	2	2361	93.7	6.1	99.7	1.5	1.5	0.80	0.82	0.97	0.94
27	Overall	2	11895	90.3	9.3	99.5	1.3	1.3	0.91	0.92	0.97	0.90
	1	2	6128	89.6	9.9	99.4	1.2	1.2	0.93	0.93	0.96	0.90
	2	2	205	92.7	7.3	100.0	1.4	1.5	0.79	0.78	0.97	0.93
	3	2	1898	90.1	9.6	99.7	1.3	1.3	0.88	0.91	0.96	0.90
	4	2	1303	93.6	6.1	99.7	1.3	1.3	0.92	0.94	0.98	0.94
	5	2	2361	90.3	9.3	99.6	1.4	1.4	0.88	0.88	0.96	0.90
28	Overall	2	11895	79.3	19.0	98.3	0.9	0.9	0.88	0.87	0.91	0.79
	1	2	6128	78.5	20.0	98.5	0.9	0.9	0.87	0.87	0.91	0.78
	2	2	205	78.0	19.5	97.6	1.1	1.0	0.83	0.84	0.88	0.78
	3	2	1898	81.4	17.1	98.5	1.0	1.0	0.86	0.86	0.92	0.81
	4	2	1303	82.6	15.5	98.1	1.0	0.9	0.87	0.89	0.92	0.83
	5	2	2361	78.1	19.7	97.8	1.0	1.0	0.89	0.87	0.90	0.78
29	Overall	3	11895	76.4	22.3	98.7	2.1	2.1	1.09	1.10	0.94	0.76
	1	3	6128	75.4	23.0	98.5	2.0	2.0	1.12	1.12	0.94	0.75
	2	3	205	77.1	22.0	99.0	2.4	2.2	0.97	0.95	0.92	0.77
	3	3	1898	76.0	23.0	98.9	2.3	2.2	1.04	1.03	0.93	0.76
	4	3	1303	77.2	21.9	99.1	2.3	2.1	1.06	1.09	0.94	0.77
	5	3	2361	78.8	19.9	98.7	2.2	2.1	1.06	1.09	0.94	0.79
30	Overall	2	11895	85.3	14.1	99.4	1.5	1.5	0.76	0.77	0.92	0.85
	1	2	6128	84.2	15.1	99.3	1.5	1.5	0.76	0.77	0.92	0.84
	2	2	205	88.8	10.7	99.5	1.5	1.6	0.76	0.77	0.94	0.89
	3	2	1898	85.7	13.7	99.4	1.5	1.5	0.74	0.76	0.92	0.86
	4	2	1303	85.1	14.2	99.3	1.5	1.5	0.76	0.80	0.92	0.85
	5	2	2361	87.4	12.0	99.4	1.5	1.5	0.78	0.77	0.94	0.87

Table H-4. NYS Public Schools Grade 6 Mathematics Operational Test 2006: Inter-rater Agreement (Continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
31	Overall	2	11895	84.6	13.1	97.7	0.8	0.7	0.90	0.92	0.93	0.85
	1	2	6128	85.1	12.7	97.8	0.7	0.7	0.88	0.90	0.93	0.85
	2	2	205	76.1	21.5	97.6	0.9	0.8	0.89	0.90	0.89	0.76
	3	2	1898	84.1	14.4	98.5	0.9	0.8	0.91	0.95	0.94	0.84
	4	2	1303	87.0	9.5	96.5	0.7	0.7	0.92	0.92	0.93	0.87
	5	2	2361	83.2	14.4	97.6	0.9	0.8	0.92	0.94	0.93	0.83
32	Overall	2	11895	77.6	21.1	98.7	1.4	1.5	0.71	0.69	0.85	0.78
	1	2	6128	75.6	22.9	98.5	1.4	1.5	0.73	0.70	0.83	0.76
	2	2	205	82.0	18.0	100.0	1.6	1.6	0.56	0.56	0.83	0.82
	3	2	1898	79.5	19.6	99.1	1.5	1.5	0.68	0.67	0.85	0.80
	4	2	1303	75.3	23.0	98.3	1.4	1.4	0.73	0.73	0.84	0.75
	5	2	2361	82.2	16.8	99.0	1.5	1.5	0.68	0.68	0.87	0.82
33	Overall	3	11895	78.6	20.2	98.9	1.1	1.0	1.22	1.24	0.96	0.79
	1	3	6128	79.2	19.7	98.9	1.0	1.0	1.20	1.21	0.95	0.79
	2	3	205	75.1	23.4	98.5	1.1	1.1	1.25	1.25	0.94	0.75
	3	3	1898	80.6	18.3	98.9	1.2	1.1	1.25	1.27	0.96	0.81
	4	3	1303	73.8	24.9	98.7	1.2	1.1	1.21	1.24	0.95	0.74
	5	3	2361	78.7	20.3	98.9	1.2	1.1	1.25	1.27	0.96	0.79
34	Overall	3	11895	77.2	19.8	97.0	1.8	1.8	1.24	1.26	0.94	0.77
	1	3	6128	78.4	18.4	96.9	1.7	1.7	1.27	1.28	0.95	0.78
	2	3	205	81.5	16.1	97.6	2.1	2.0	1.12	1.13	0.94	0.81
	3	3	1898	75.7	20.9	96.6	1.8	1.8	1.23	1.23	0.94	0.76
	4	3	1303	71.8	26.2	98.1	1.9	1.8	1.15	1.23	0.94	0.72
	5	3	2361	77.6	19.3	96.9	1.9	1.9	1.24	1.24	0.94	0.78
35	Overall	3	11895	85.5	13.7	99.2	1.2	1.1	1.04	1.04	0.96	0.86
	1	3	6128	85.3	13.9	99.3	1.1	1.1	1.04	1.04	0.96	0.85
	2	3	205	81.5	17.1	98.5	1.2	1.1	0.97	0.93	0.92	0.81
	3	3	1898	86.6	12.7	99.3	1.2	1.2	1.03	1.02	0.96	0.87
	4	3	1303	88.0	11.4	99.5	1.2	1.2	0.96	0.98	0.96	0.88
	5	3	2361	84.0	14.9	98.9	1.3	1.2	1.06	1.05	0.95	0.84

Approximate agreement (%) is the percent of pairs of readers that differ by one score point. Total agreement (%) is the sum of exact and approximate percents.

Table H-5. NYS Public Schools Grade 7 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
31	Overall	2	12299	70.9	28.4	99.3	1.2	1.2	0.74	0.74	0.83	0.57
	1	2	6583	71.4	28.0	99.4	1.1	1.1	0.75	0.77	0.85	0.71
	2	2	384	65.1	34.1	99.2	1.3	1.3	0.70	0.70	0.77	0.65
	3	2	860	73.7	25.2	99.0	0.9	0.9	0.74	0.77	0.85	0.74
	4	2	1353	67.0	32.4	99.5	1.5	1.3	0.64	0.65	0.74	0.67
	5	2	3119	71.2	27.8	98.9	1.3	1.3	0.68	0.70	0.80	0.71
32	Overall	2	12299	83.3	16.5	99.8	0.9	0.8	0.71	0.72	0.91	0.83
	1	2	6583	85.2	14.7	99.9	0.7	0.7	0.66	0.69	0.91	0.85
	2	2	384	91.9	8.1	100.0	1.3	1.2	0.76	0.76	0.96	0.92
	3	2	860	85.0	15.0	100.0	0.6	0.5	0.65	0.67	0.91	0.85
	4	2	1353	77.2	22.6	99.9	1.2	1.0	0.67	0.64	0.85	0.77
	5	2	3119	80.6	19.1	99.6	1.1	1.0	0.73	0.75	0.90	0.81
33	Overall	3	12299	80.5	18.2	98.7	1.6	1.5	1.21	1.25	0.96	0.81
	1	3	6583	80.1	18.7	98.8	1.5	1.4	1.20	1.25	0.96	0.80
	2	3	384	78.1	20.8	99.0	2.0	1.8	1.14	1.20	0.95	0.78
	3	3	860	86.2	12.7	98.8	1.1	1.0	1.19	1.18	0.97	0.86
	4	3	1353	79.1	19.5	98.6	1.9	1.8	1.14	1.18	0.95	0.79
	5	3	3119	80.7	17.7	98.4	1.8	1.7	1.18	1.21	0.95	0.81
34	Overall	3	12299	66.5	29.9	96.4	1.1	0.9	1.10	1.12	0.89	0.66
	1	3	6583	66.8	30.5	97.3	0.9	0.7	0.96	0.98	0.87	0.67
	2	3	384	69.3	27.1	96.4	1.6	1.5	1.23	1.30	0.93	0.69
	3	3	860	62.9	32.4	95.3	0.9	0.7	1.00	0.94	0.82	0.63
	4	3	1353	68.7	25.1	93.8	1.6	1.4	1.24	1.30	0.91	0.69
	5	3	3119	65.6	30.2	95.8	1.3	1.1	1.17	1.20	0.90	0.66
35	Overall	2	12299	82.6	16.9	99.5	0.8	0.8	0.87	0.90	0.94	0.83
	1	2	6583	82.2	17.4	99.7	0.7	0.7	0.85	0.87	0.93	0.82
	2	2	384	84.4	15.4	99.7	1.2	1.0	0.83	0.91	0.94	0.84
	3	2	860	86.5	13.3	99.8	0.4	0.4	0.71	0.71	0.92	0.87
	4	2	1353	81.0	18.5	99.5	1.1	1.0	0.84	0.92	0.93	0.81
	5	2	3119	82.8	16.4	99.2	1.0	0.9	0.88	0.92	0.94	0.83

Table H-5. NYS Public Schools Grade 7 Mathematics Operational Test 2006: Inter-rater Agreement (Continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
36	Overall	2	12299	85.9	13.7	99.6	1.1	1.0	0.91	0.94	0.95	0.86
	1	2	6583	85.6	14.1	99.7	1.0	0.9	0.91	0.95	0.95	0.86
	2	2	384	88.8	11.2	100.0	1.5	1.4	0.73	0.84	0.95	0.89
	3	2	860	85.6	14.1	99.7	0.7	0.7	0.88	0.89	0.95	0.86
	4	2	1353	87.1	12.6	99.6	1.4	1.4	0.79	0.84	0.94	0.87
	5	2	3119	85.7	13.7	99.4	1.2	1.2	0.87	0.92	0.95	0.86
37	Overall	3	12299	85.2	14.3	99.5	1.3	1.2	0.72	0.71	0.91	0.85
	1	3	6583	85.7	13.8	99.5	1.1	1.1	0.60	0.59	0.87	0.86
	2	3	384	76.0	23.7	99.7	1.6	1.4	0.84	0.86	0.91	0.76
	3	3	860	89.0	10.7	99.7	1.0	0.9	0.46	0.46	0.84	0.89
	4	3	1353	86.0	13.7	99.6	1.7	1.6	0.88	0.93	0.95	0.86
	5	3	3119	84.0	15.4	99.4	1.4	1.3	0.79	0.78	0.92	0.84
38	Overall	3	12299	69.9	26.7	96.7	1.4	1.4	1.18	1.20	0.92	0.70
	1	3	6583	70.8	26.1	96.9	1.2	1.2	1.15	1.19	0.92	0.71
	2	3	384	70.3	27.6	97.9	2.0	1.8	1.13	1.12	0.92	0.70
	3	3	860	74.7	22.9	97.6	0.7	0.8	0.95	0.99	0.91	0.75
	4	3	1353	73.0	23.9	97.0	1.8	1.7	1.15	1.18	0.93	0.73
	5	3	3119	65.4	30.1	95.6	1.7	1.6	1.15	1.16	0.90	0.65

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table H-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
28	Overall	2	13225	77.9	21.6	99.5	1.0	0.9	0.84	0.88	0.91	0.73
	1	2	5371	77.4	22.0	99.4	0.7	0.7	0.82	0.83	0.90	0.77
	2	2	357	90.2	9.8	100.0	1.3	1.3	0.86	0.89	0.97	0.90
	3	2	1129	83.5	16.2	99.7	0.8	0.7	0.85	0.85	0.94	0.84
	4	2	918	85.0	14.5	99.5	0.9	0.9	0.88	0.89	0.94	0.85
	5	2	5450	75.2	24.4	99.6	1.2	1.0	0.76	0.89	0.90	0.75
29	Overall	3	13225	60.6	34.8	95.4	1.9	1.7	1.17	1.15	0.89	0.61
	1	3	5371	61.0	34.5	95.5	1.6	1.4	1.25	1.17	0.90	0.61
	2	3	357	69.2	28.0	97.2	2.1	1.9	1.05	1.07	0.91	0.69
	3	3	1129	63.9	33.5	97.3	1.7	1.5	1.22	1.16	0.91	0.64
	4	3	918	65.0	30.9	96.0	1.9	1.9	1.08	1.08	0.89	0.65
	5	3	5450	58.2	36.5	94.8	2.2	1.9	1.03	1.05	0.84	0.58
30	Overall	2	13225	64.4	32.7	97.1	1.3	1.1	0.82	0.78	0.80	0.64
	1	2	5371	63.3	34.4	97.7	1.1	1.0	0.88	0.77	0.81	0.63
	2	2	357	70.9	25.8	96.6	1.5	1.3	0.75	0.74	0.79	0.71
	3	2	1129	62.3	32.3	94.6	1.3	1.0	0.81	0.81	0.75	0.62
	4	2	918	64.8	33.8	98.6	1.3	1.2	0.77	0.73	0.79	0.65
	5	2	5450	65.4	31.5	96.9	1.5	1.2	0.74	0.76	0.77	0.65
31	Overall	3	13225	76.5	21.4	98.0	1.2	1.2	1.24	1.26	0.95	0.77
	1	3	5371	79.1	18.9	98.0	0.9	1.0	1.19	1.20	0.95	0.79
	2	3	357	79.0	18.5	97.5	1.7	1.7	1.26	1.24	0.95	0.79
	3	3	1129	77.9	20.9	98.8	1.0	1.0	1.15	1.16	0.95	0.78
	4	3	918	72.5	25.5	98.0	0.8	0.8	1.06	1.10	0.92	0.73
	5	3	5450	74.3	23.6	97.9	1.6	1.6	1.23	1.27	0.94	0.74
32	Overall	2	13225	88.4	11.5	99.9	1.0	1.0	0.79	0.80	0.95	0.88
	1	2	5371	88.0	11.9	99.9	0.8	0.8	0.79	0.78	0.95	0.88
	2	2	357	94.4	5.6	100.0	1.4	1.3	0.72	0.76	0.97	0.94
	3	2	1129	86.4	13.6	100.0	0.9	0.9	0.78	0.79	0.94	0.86
	4	2	918	88.8	11.2	100.0	1.0	0.9	0.74	0.76	0.95	0.89
	5	2	5450	88.8	11.0	99.9	1.2	1.2	0.75	0.77	0.95	0.89
33	Overall	2	13225	94.4	5.5	99.9	1.1	1.1	0.61	0.61	0.96	0.94
	1	2	5371	93.9	6.0	99.9	1.1	1.1	0.63	0.62	0.96	0.94
	2	2	357	96.1	3.9	100.0	1.2	1.2	0.60	0.61	0.97	0.96
	3	2	1129	94.8	5.1	99.9	1.0	1.0	0.57	0.57	0.96	0.95
	4	2	918	96.6	3.4	100.0	1.1	1.1	0.57	0.58	0.97	0.97
	5	2	5450	94.3	5.5	99.9	1.1	1.1	0.60	0.61	0.96	0.94

Table H-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
34	Overall	2	13225	83.2	16.5	99.7	1.3	1.2	0.79	0.82	0.93	0.83
	1	2	5371	83.2	16.5	99.6	1.1	1.1	0.83	0.85	0.93	0.83
	2	2	357	86.6	12.9	99.4	1.5	1.5	0.72	0.74	0.92	0.87
	3	2	1129	83.6	16.1	99.7	1.2	1.2	0.79	0.82	0.93	0.84
	4	2	918	83.2	16.2	99.5	1.3	1.3	0.78	0.81	0.92	0.83
	5	2	5450	82.9	16.9	99.8	1.4	1.4	0.73	0.77	0.91	0.83
35	Overall	3	13225	68.8	28.3	97.1	1.1	1.2	0.85	0.84	0.84	0.69
	1	3	5371	69.9	26.9	96.9	0.9	1.0	0.86	0.87	0.85	0.70
	2	3	357	69.7	27.7	97.5	1.4	1.4	0.77	0.80	0.82	0.70
	3	3	1129	66.3	30.6	96.8	1.2	1.1	0.87	0.84	0.83	0.66
	4	3	918	65.5	32.2	97.7	1.1	1.0	0.83	0.82	0.82	0.65
	5	3	5450	68.7	28.6	97.3	1.3	1.4	0.81	0.78	0.81	0.69
36	Overall	3	13225	80.8	17.4	98.2	1.3	1.2	1.25	1.30	0.96	0.81
	1	3	5371	82.2	16.2	98.4	1.0	0.9	1.18	1.22	0.96	0.82
	2	3	357	78.2	20.2	98.3	1.7	1.7	1.30	1.35	0.96	0.78
	3	3	1129	81.1	17.4	98.6	1.1	0.9	1.21	1.26	0.96	0.81
	4	3	918	75.7	21.8	97.5	1.1	0.9	1.17	1.22	0.94	0.76
	5	3	5450	80.5	17.6	98.1	1.7	1.6	1.21	1.30	0.96	0.80
37	Overall	2	13225	83.9	15.9	99.8	1.3	1.3	0.78	0.80	0.93	0.84
	1	2	5371	80.4	19.3	99.7	1.1	1.1	0.80	0.82	0.92	0.80
	2	2	357	95.0	5.0	100.0	1.7	1.7	0.61	0.63	0.97	0.95
	3	2	1129	84.8	15.1	99.9	1.4	1.3	0.77	0.80	0.93	0.85
	4	2	918	88.2	11.7	99.9	1.3	1.4	0.76	0.76	0.94	0.88
	5	2	5450	85.6	14.2	99.8	1.5	1.5	0.71	0.73	0.92	0.86
38	Overall	2	13225	83.2	16.1	99.3	1.1	1.1	0.87	0.89	0.94	0.83
	1	2	5371	82.3	16.7	99.1	0.9	0.9	0.89	0.91	0.93	0.82
	2	2	357	86.8	13.2	100.0	1.3	1.3	0.82	0.86	0.95	0.87
	3	2	1129	82.3	17.3	99.6	1.0	1.0	0.88	0.89	0.94	0.82
	4	2	918	76.6	22.3	98.9	1.0	1.0	0.80	0.87	0.90	0.77
	5	2	5450	85.2	14.4	99.6	1.3	1.3	0.80	0.83	0.94	0.85
39	Overall	3	13225	73.3	24.7	98.0	1.5	1.5	1.22	1.26	0.94	0.73
	1	3	5371	73.4	25.0	98.4	1.2	1.2	1.20	1.21	0.94	0.73
	2	3	357	77.3	21.6	98.9	2.1	2.0	1.18	1.19	0.95	0.77
	3	3	1129	74.0	24.8	98.8	1.3	1.3	1.21	1.24	0.95	0.74
	4	3	918	73.6	24.1	97.7	1.6	1.5	1.19	1.29	0.94	0.74
	5	3	5450	72.7	24.6	97.4	1.8	1.8	1.17	1.23	0.93	0.73

Table H-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
40	Overall	2	13225	81.6	18.1	99.8	1.0	1.0	0.77	0.79	0.91	0.82
	1	2	5371	81.1	18.7	99.7	0.8	0.8	0.75	0.78	0.91	0.81
	2	2	357	77.0	22.4	99.4	1.1	1.2	0.81	0.77	0.89	0.77
	3	2	1129	86.4	13.6	99.9	0.9	0.9	0.77	0.79	0.94	0.86
	4	2	918	83.4	16.2	99.7	0.9	0.9	0.66	0.71	0.90	0.83
	5	2	5450	81.2	18.5	99.8	1.1	1.1	0.77	0.77	0.91	0.81
41	Overall	2	13225	85.0	14.2	99.2	1.1	1.1	0.90	0.92	0.94	0.85
	1	2	5371	82.8	16.0	98.9	0.8	0.8	0.88	0.91	0.93	0.83
	2	2	357	87.1	11.5	98.6	1.3	1.3	0.85	0.89	0.94	0.87
	3	2	1129	88.3	11.6	99.9	0.9	0.9	0.91	0.91	0.96	0.88
	4	2	918	81.0	18.0	99.0	0.8	0.8	0.88	0.88	0.92	0.81
	5	2	5450	87.0	12.5	99.5	1.3	1.3	0.84	0.86	0.95	0.87
42	Overall	3	13225	63.0	34.2	97.2	1.7	1.8	0.98	1.00	0.87	0.63
	1	3	5371	64.8	31.8	96.6	1.6	1.7	1.01	1.03	0.88	0.65
	2	3	357	57.7	35.9	93.6	1.8	1.9	1.00	1.02	0.82	0.58
	3	3	1129	53.9	44.6	98.5	1.5	1.6	0.95	0.94	0.84	0.54
	4	3	918	60.7	36.7	97.4	1.8	1.8	0.90	0.96	0.84	0.61
	5	3	5450	63.8	33.8	97.7	1.8	1.9	0.97	0.97	0.87	0.64
43	Overall	3	13225	58.1	37.5	95.6	1.6	1.4	1.03	1.04	0.85	0.58
	1	3	5371	59.0	36.3	95.3	1.4	1.2	1.06	1.05	0.85	0.59
	2	3	357	62.5	35.3	97.8	2.0	1.8	0.98	1.07	0.88	0.62
	3	3	1129	59.0	36.8	95.7	1.5	1.3	1.05	1.04	0.86	0.59
	4	3	918	64.4	33.0	97.4	1.5	1.4	0.98	0.96	0.87	0.64
	5	3	5450	55.6	39.7	95.3	1.9	1.6	0.93	1.00	0.82	0.56
44	Overall	2	13225	76.2	20.7	96.9	1.0	1.0	0.91	0.93	0.89	0.76
	1	2	5371	76.5	19.8	96.4	0.8	0.9	0.90	0.93	0.89	0.77
	2	2	357	79.3	18.5	97.8	1.4	1.2	0.88	0.90	0.91	0.79
	3	2	1129	73.4	23.7	97.2	0.9	0.9	0.89	0.91	0.88	0.73
	4	2	918	79.3	17.4	96.7	1.0	1.0	0.91	0.93	0.90	0.79
	5	2	5450	75.7	21.6	97.4	1.2	1.2	0.87	0.92	0.89	0.76
45	Overall	2	13225	81.1	18.0	99.1	1.2	1.2	0.90	0.91	0.93	0.81
	1	2	5371	81.7	16.9	98.7	1.0	1.0	0.92	0.93	0.93	0.82
	2	2	357	79.6	20.2	99.7	1.4	1.3	0.80	0.88	0.92	0.80
	3	2	1129	78.0	20.9	98.9	1.1	1.1	0.91	0.92	0.92	0.78
	4	2	918	81.6	17.3	98.9	1.3	1.4	0.85	0.87	0.92	0.82
	5	2	5450	81.2	18.3	99.5	1.4	1.4	0.84	0.86	0.92	0.81

Approximate agreement (%) is the percent of pairs of readers that differ by one score point. Total agreement (%) is the sum of exact and approximate percents.

Appendix I

Item Level Statistics for Mathematics Including All Schools in State Without New York City Schools

Table I-1. NYS Public Schools (Without NYC) Grade 3 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
26	Overall	2	7620	96.1	3.7	99.9	1.8	1.8	0.47	0.51	0.95	0.85
	1	2	920	95.2	4.7	99.9	1.8	1.8	0.51	0.52	0.95	0.95
	2	2	243	97.9	1.2	99.2	1.9	1.8	0.42	0.46	0.94	0.98
	3	2	3682	96.4	3.5	99.9	1.8	1.8	0.45	0.49	0.95	0.96
	4	2	908	94.1	5.8	99.9	1.8	1.8	0.48	0.58	0.94	0.94
	5	2	1867	96.8	2.9	99.8	1.8	1.8	0.50	0.49	0.96	0.97
27	Overall	2	7620	79.8	20.0	99.8	1.2	1.2	0.60	0.62	0.84	0.80
	1	2	920	82.5	17.4	99.9	1.1	1.2	0.59	0.64	0.87	0.82
	2	2	243	74.9	25.1	100.0	1.3	1.2	0.65	0.61	0.82	0.75
	3	2	3682	79.9	19.9	99.8	1.2	1.3	0.60	0.62	0.84	0.80
	4	2	908	77.1	22.7	99.8	1.3	1.2	0.63	0.59	0.81	0.77
	5	2	1867	80.4	19.4	99.8	1.2	1.2	0.59	0.60	0.83	0.80
28	Overall	3	7620	88.8	10.5	99.3	2.2	2.2	0.93	0.93	0.96	0.89
	1	3	920	90.9	9.0	99.9	2.1	2.1	0.94	0.94	0.97	0.91
	2	3	243	88.5	10.3	98.8	2.2	2.1	0.91	0.90	0.95	0.88
	3	3	3682	88.3	10.9	99.2	2.2	2.2	0.92	0.93	0.96	0.88
	4	3	908	89.0	10.4	99.3	2.1	2.1	0.94	0.95	0.96	0.89
	5	3	1867	88.6	10.6	99.2	2.2	2.2	0.93	0.93	0.96	0.89
29	Overall	3	7620	82.6	16.8	99.4	2.3	2.3	0.70	0.71	0.89	0.83
	1	3	920	84.7	14.9	99.6	2.2	2.2	0.70	0.73	0.91	0.85
	2	3	243	75.3	24.7	100.0	2.3	2.3	0.62	0.66	0.83	0.75
	3	3	3682	83.0	16.3	99.3	2.3	2.3	0.70	0.71	0.89	0.83
	4	3	908	78.4	20.9	99.3	2.3	2.4	0.72	0.74	0.88	0.78
	5	3	1867	83.7	15.6	99.3	2.3	2.3	0.72	0.70	0.90	0.84
30	Overall	2	7620	91.2	8.3	99.5	1.7	1.7	0.59	0.63	0.92	0.91
	1	2	920	88.6	11.3	99.9	1.7	1.6	0.64	0.66	0.93	0.89
	2	2	243	93.0	6.2	99.2	1.7	1.7	0.58	0.63	0.93	0.93
	3	2	3682	91.6	8.0	99.6	1.7	1.7	0.56	0.60	0.92	0.92
	4	2	908	92.0	6.9	98.9	1.7	1.7	0.62	0.67	0.93	0.92
	5	2	1867	91.2	8.4	99.6	1.7	1.7	0.58	0.63	0.93	0.91

Table I-1. NYS Public Schools (Without NYC) Grade 3 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
31	Overall	2	7620	81.0	18.4	99.5	1.3	1.3	0.73	0.74	0.89	0.81
	1	2	920	81.1	18.5	99.6	1.2	1.2	0.77	0.78	0.91	0.81
	2	2	243	74.9	23.9	98.8	1.4	1.3	0.69	0.72	0.83	0.75
	3	2	3682	80.8	18.5	99.3	1.3	1.3	0.73	0.73	0.89	0.81
	4	2	908	82.9	16.7	99.7	1.3	1.3	0.75	0.73	0.91	0.83
	5	2	1867	81.4	18.3	99.6	1.3	1.4	0.71	0.72	0.89	0.81

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table I-2. NYS Public Schools (Without NYC) Grade 4 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
31	Overall	2	7189	91.1	8.7	99.8	1.6	1.6	0.70	0.67	0.95	0.82
	1	2	2316	89.9	9.7	99.6	1.5	1.5	0.75	0.73	0.95	0.90
	2	2	164	92.1	7.9	100.0	1.6	1.6	0.68	0.73	0.96	0.92
	3	2	1879	92.0	8.0	99.9	1.6	1.6	0.67	0.64	0.95	0.92
	4	2	821	91.1	8.5	99.6	1.6	1.6	0.66	0.65	0.94	0.91
	5	2	2009	91.4	8.4	99.9	1.6	1.7	0.66	0.63	0.94	0.91
32	Overall	3	7189	89.5	10.0	99.5	2.7	2.7	0.62	0.67	0.92	0.90
	1	3	2316	89.2	10.2	99.4	2.7	2.7	0.67	0.72	0.93	0.89
	2	3	164	88.4	11.6	100.0	2.7	2.7	0.61	0.71	0.93	0.88
	3	3	1879	90.2	9.4	99.6	2.7	2.7	0.63	0.67	0.93	0.90
	4	3	821	90.3	9.3	99.5	2.8	2.8	0.62	0.57	0.90	0.90
	5	3	2009	89.1	10.5	99.6	2.8	2.8	0.57	0.62	0.90	0.89
33	Overall	2	7189	86.3	13.5	99.8	1.1	1.1	0.70	0.69	0.92	0.86
	1	2	2316	86.2	13.8	100.0	1.0	1.0	0.70	0.68	0.92	0.86
	2	2	164	82.9	17.1	100.0	1.1	1.1	0.73	0.74	0.92	0.83
	3	2	1879	86.9	12.9	99.7	1.1	1.1	0.67	0.66	0.91	0.87
	4	2	821	83.9	16.0	99.9	1.1	1.1	0.70	0.72	0.91	0.84
	5	2	2009	87.2	12.6	99.8	1.2	1.1	0.69	0.73	0.93	0.87
34	Overall	2	7189	92.1	7.8	99.9	1.5	1.5	0.68	0.66	0.95	0.92
	1	2	2316	89.4	10.4	99.8	1.4	1.4	0.72	0.69	0.94	0.89
	2	2	164	95.1	4.9	100.0	1.5	1.5	0.65	0.68	0.97	0.95
	3	2	1879	91.8	8.2	99.9	1.5	1.5	0.66	0.66	0.95	0.92
	4	2	821	93.2	6.8	100.0	1.5	1.6	0.65	0.63	0.96	0.93
	5	2	2009	94.8	5.1	99.9	1.5	1.5	0.65	0.64	0.97	0.95
35	Overall	2	7189	94.5	5.1	99.6	1.5	1.5	0.81	0.81	0.97	0.94
	1	2	2316	94.7	4.8	99.5	1.5	1.5	0.85	0.85	0.98	0.95
	2	2	164	95.7	4.3	100.0	1.5	1.5	0.85	0.85	0.99	0.96
	3	2	1879	94.8	4.8	99.6	1.6	1.6	0.79	0.78	0.97	0.95
	4	2	821	93.9	5.8	99.8	1.6	1.6	0.76	0.77	0.97	0.94
	5	2	2009	94.1	5.5	99.6	1.6	1.6	0.77	0.78	0.97	0.94
36	Overall	2	7189	88.1	11.3	99.4	1.3	1.3	0.87	0.89	0.95	0.88
	1	2	2316	87.7	11.8	99.4	1.2	1.2	0.90	0.92	0.96	0.88
	2	2	164	86.0	14.0	100.0	1.3	1.2	0.89	0.91	0.96	0.86
	3	2	1879	86.4	13.2	99.6	1.3	1.4	0.85	0.86	0.95	0.86
	4	2	821	87.1	12.2	99.3	1.4	1.5	0.82	0.84	0.94	0.87
	5	2	2009	90.7	8.4	99.1	1.4	1.4	0.86	0.87	0.96	0.91

Table I-2. NYS Public Schools (Without NYC) Grade 4 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
37	Overall	2	7189	91.9	7.7	99.6	1.2	1.2	0.87	0.87	0.97	0.92
	1	2	2316	91.2	8.5	99.7	1.1	1.1	0.87	0.88	0.97	0.91
	2	2	164	94.5	5.5	100.0	1.3	1.3	0.87	0.89	0.98	0.95
	3	2	1879	92.0	7.9	99.8	1.2	1.2	0.87	0.86	0.97	0.92
	4	2	821	90.7	8.9	99.6	1.2	1.2	0.86	0.87	0.96	0.91
	5	2	2009	93.0	6.3	99.3	1.3	1.3	0.87	0.88	0.97	0.93
38	Overall	3	7189	71.7	26.8	98.5	2.4	2.4	0.74	0.74	0.82	0.72
	1	3	2316	69.6	28.3	98.0	2.3	2.3	0.76	0.79	0.82	0.70
	2	3	164	73.2	25.6	98.8	2.3	2.3	0.79	0.74	0.85	0.73
	3	3	1879	70.5	28.0	98.5	2.5	2.5	0.74	0.72	0.81	0.71
	4	3	821	72.0	26.2	98.2	2.4	2.5	0.74	0.71	0.81	0.72
	5	3	2009	75.0	24.3	99.3	2.5	2.5	0.71	0.70	0.84	0.75
39	Overall	2	7189	89.0	10.7	99.7	1.5	1.4	0.77	0.77	0.95	0.89
	1	2	2316	88.6	11.2	99.8	1.4	1.4	0.80	0.80	0.95	0.89
	2	2	164	88.4	11.6	100.0	1.4	1.4	0.78	0.83	0.95	0.88
	3	2	1879	89.0	10.9	99.9	1.4	1.5	0.76	0.78	0.95	0.89
	4	2	821	90.1	9.7	99.9	1.5	1.5	0.74	0.75	0.95	0.90
	5	2	2009	89.0	10.3	99.3	1.5	1.5	0.73	0.74	0.93	0.89
40	Overall	2	7189	97.0	2.8	99.8	1.7	1.7	0.59	0.60	0.98	0.97
	1	2	2316	97.1	2.8	99.9	1.7	1.7	0.63	0.64	0.98	0.97
	2	2	164	97.0	3.0	100.0	1.8	1.8	0.54	0.52	0.97	0.97
	3	2	1879	96.8	3.0	99.8	1.7	1.7	0.60	0.60	0.97	0.97
	4	2	821	97.1	2.7	99.8	1.8	1.8	0.55	0.56	0.97	0.97
	5	2	2009	97.2	2.7	99.9	1.8	1.8	0.56	0.56	0.97	0.97
41	Overall	2	7189	92.4	7.2	99.6	1.7	1.7	0.64	0.65	0.95	0.92
	1	2	2316	91.3	8.3	99.6	1.6	1.6	0.69	0.71	0.95	0.91
	2	2	164	92.7	6.7	99.4	1.7	1.7	0.65	0.67	0.94	0.93
	3	2	1879	92.5	7.2	99.7	1.7	1.7	0.65	0.66	0.95	0.93
	4	2	821	94.0	5.7	99.8	1.8	1.8	0.56	0.56	0.94	0.94
	5	2	2009	92.9	6.7	99.6	1.7	1.7	0.60	0.61	0.94	0.93
42	Overall	2	7189	89.2	10.5	99.7	1.2	1.2	0.84	0.85	0.96	0.89
	1	2	2316	87.8	12.0	99.7	1.1	1.0	0.84	0.86	0.95	0.88
	2	2	164	86.6	12.8	99.4	1.2	1.2	0.82	0.84	0.94	0.87
	3	2	1879	90.4	9.3	99.7	1.1	1.1	0.84	0.84	0.96	0.90
	4	2	821	90.0	9.6	99.6	1.3	1.2	0.82	0.86	0.96	0.90
	5	2	2009	89.5	10.3	99.8	1.3	1.3	0.82	0.81	0.96	0.89

Table I-2. NYS Public Schools (Without NYC) Grade 4 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
43	Overall	2	7189	87.0	12.5	99.6	1.2	1.2	0.85	0.88	0.95	0.87
	1	2	2316	85.9	13.7	99.6	1.0	1.0	0.87	0.90	0.95	0.86
	2	2	164	87.2	12.8	100.0	1.2	1.2	0.86	0.88	0.96	0.87
	3	2	1879	88.0	11.6	99.6	1.2	1.2	0.84	0.87	0.95	0.88
	4	2	821	85.7	13.3	99.0	1.3	1.3	0.81	0.87	0.94	0.86
	5	2	2009	88.0	11.7	99.7	1.3	1.3	0.84	0.85	0.95	0.88
44	Overall	2	7189	93.7	6.2	99.8	1.6	1.6	0.64	0.64	0.96	0.94
	1	2	2316	91.8	8.1	99.9	1.6	1.6	0.69	0.68	0.95	0.92
	2	2	164	96.3	3.7	100.0	1.6	1.6	0.67	0.64	0.98	0.96
	3	2	1879	93.7	6.2	99.9	1.6	1.6	0.62	0.64	0.96	0.94
	4	2	821	94.8	4.9	99.6	1.7	1.7	0.55	0.60	0.95	0.95
	5	2	2009	95.1	4.7	99.9	1.7	1.7	0.60	0.60	0.96	0.95
45	Overall	3	7189	87.2	11.8	99.0	2.5	2.5	0.88	0.90	0.95	0.87
	1	3	2316	87.6	11.9	99.4	2.4	2.4	0.93	0.94	0.96	0.88
	2	3	164	93.9	6.1	100.0	2.5	2.5	0.90	0.89	0.98	0.94
	3	3	1879	86.3	12.5	98.8	2.5	2.5	0.87	0.89	0.94	0.86
	4	3	821	88.1	10.4	98.4	2.6	2.5	0.82	0.88	0.94	0.88
	5	3	2009	86.9	12.0	99.0	2.5	2.5	0.86	0.87	0.94	0.87
46	Overall	2	7189	79.4	20.4	99.8	1.0	1.1	0.67	0.68	0.87	0.79
	1	2	2316	82.4	17.5	99.9	1.0	1.1	0.68	0.66	0.89	0.82
	2	2	164	78.0	22.0	100.0	1.0	1.1	0.67	0.71	0.87	0.78
	3	2	1879	78.3	21.4	99.7	1.0	1.1	0.65	0.67	0.85	0.78
	4	2	821	72.5	27.4	99.9	1.1	1.2	0.64	0.71	0.82	0.72
	5	2	2009	80.0	19.9	99.9	1.1	1.2	0.66	0.67	0.87	0.80
47	Overall	3	7189	80.7	18.3	99.1	2.3	2.3	0.98	1.00	0.94	0.81
	1	3	2316	78.1	21.0	99.1	2.2	2.2	1.03	1.04	0.94	0.78
	2	3	164	75.0	23.2	98.2	2.3	2.2	1.02	1.07	0.92	0.75
	3	3	1879	81.3	17.3	98.6	2.3	2.3	0.99	1.01	0.94	0.81
	4	3	821	83.6	16.0	99.5	2.5	2.5	0.84	0.85	0.93	0.84
	5	3	2009	82.5	16.7	99.3	2.4	2.4	0.95	0.96	0.94	0.83
48	Overall	2	7189	87.5	12.2	99.7	1.4	1.3	0.78	0.83	0.95	0.88
	1	2	2316	84.5	14.9	99.4	1.2	1.2	0.81	0.86	0.93	0.84
	2	2	164	87.8	12.2	1.0	1.3	1.2	0.82	0.86	0.96	0.88
	3	2	1879	86.9	12.8	99.6	1.4	1.3	0.76	0.83	0.94	0.87
	4	2	821	88.4	11.6	100.0	1.5	1.4	0.72	0.80	0.95	0.88
	5	2	2009	91.2	8.7	99.9	1.4	1.4	0.77	0.79	0.96	0.91

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table I-3. NYS Public Schools (Without NYC) Grade 5 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
27	Overall	2	7745	89.5	8.6	98.2	1.5	1.5	0.78	0.79	0.93	0.79
	1	2	847	90.1	9.6	99.6	1.5	1.5	0.79	0.82	0.96	0.90
	2	2	205	90.7	9.3	1.0	1.4	1.4	0.81	0.80	0.96	0.91
	3	2	2771	92.4	7.4	99.8	1.6	1.6	0.71	0.74	0.96	0.92
	4	2	372	96.2	3.8	1.0	1.7	1.7	0.65	0.66	0.98	0.96
	5	2	3344	89.9	9.7	99.6	1.5	1.5	0.77	0.81	0.95	0.90
28	Overall	3	7745	87.9	8.6	96.5	2.5	2.5	0.92	0.86	0.89	0.88
	1	3	847	89.7	8.5	98.2	2.6	2.5	0.82	0.87	0.94	0.90
	2	3	205	94.6	4.9	99.5	2.3	2.3	1.01	1.03	0.98	0.95
	3	3	2771	89.7	8.7	98.4	2.6	2.6	0.77	0.81	0.94	0.90
	4	3	372	91.4	4.0	95.4	2.5	2.5	0.92	0.91	0.93	0.91
	5	3	3344	90.0	9.1	99.1	2.5	2.6	0.87	0.86	0.95	0.90
29	Overall	3	7745	84.0	12.4	96.3	1.4	1.4	1.37	1.36	0.95	0.84
	1	3	847	84.4	13.5	97.9	1.3	1.3	1.36	1.36	0.97	0.84
	2	3	205	89.8	9.3	99.0	1.0	0.9	1.25	1.25	0.98	0.90
	3	3	2771	84.8	12.1	96.9	1.5	1.5	1.37	1.37	0.96	0.85
	4	3	372	84.9	12.6	97.6	1.7	1.6	1.35	1.35	0.97	0.85
	5	3	3344	84.7	12.7	97.4	1.3	1.3	1.36	1.36	0.97	0.85
30	Overall	2	7745	81.0	15.9	96.9	1.2	1.3	0.89	0.88	0.90	0.81
	1	2	847	83.1	14.8	97.9	1.2	1.3	0.91	0.86	0.92	0.83
	2	2	205	77.1	19.0	96.1	1.0	1.0	0.92	0.91	0.89	0.77
	3	2	2771	82.6	15.4	98.1	1.3	1.4	0.84	0.86	0.91	0.83
	4	2	372	87.9	11.6	99.5	1.6	1.5	0.75	0.81	0.94	0.88
	5	2	3344	81.2	17.0	98.2	1.2	1.2	0.89	0.89	0.92	0.81
31	Overall	2	7745	92.7	6.4	99.1	1.3	1.3	0.61	0.58	0.93	0.93
	1	2	847	94.5	5.5	1.0	1.4	1.4	0.56	0.57	0.96	0.94
	2	2	205	96.1	3.9	1.0	1.3	1.3	0.61	0.60	0.97	0.96
	3	2	2771	95.2	4.7	99.9	1.3	1.4	0.57	0.57	0.96	0.95
	4	2	372	94.6	5.4	1.0	1.4	1.4	0.58	0.54	0.95	0.95
	5	2	3344	94.7	5.3	1.0	1.3	1.3	0.59	0.59	0.96	0.95

Table I-3. NYS Public Schools (Without NYC) Grade 5 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
32	Overall	2	7745	83.0	15.8	98.8	0.9	0.9	0.86	0.89	0.93	0.83
	1	2	847	87.6	12.3	99.9	1.0	1.0	0.87	0.89	0.96	0.88
	2	2	205	86.8	13.2	1.0	0.6	0.4	0.77	0.74	0.94	0.87
	3	2	2771	82.9	16.5	99.4	1.1	1.0	0.85	0.88	0.93	0.83
	4	2	372	80.1	18.8	98.9	0.9	0.9	0.84	0.90	0.92	0.80
	5	2	3344	83.7	15.6	99.3	0.9	0.8	0.86	0.88	0.94	0.84
33	Overall	3	7745	61.6	32.5	94.1	2.1	2.1	1.00	0.99	0.81	0.62
	1	3	847	66.1	30.9	97.0	2.1	2.1	0.96	0.91	0.86	0.66
	2	3	205	55.6	38.5	94.1	1.9	1.8	1.14	1.02	0.85	0.56
	3	3	2771	63.6	31.8	95.4	2.1	2.1	0.94	0.96	0.83	0.64
	4	3	372	66.7	30.6	97.3	2.3	2.2	0.82	0.96	0.85	0.67
	5	3	3344	61.4	34.1	95.5	2.1	2.1	0.96	1.02	0.84	0.61
34	Overall	3	7745	79.3	16.4	95.8	2.3	2.3	1.00	1.02	0.88	0.79
	1	3	847	79.0	19.2	98.2	2.3	2.2	0.97	1.06	0.93	0.79
	2	3	205	81.0	15.6	96.6	2.2	2.0	1.00	1.16	0.93	0.81
	3	3	2771	82.1	15.4	97.5	2.4	2.4	0.88	0.97	0.91	0.82
	4	3	372	83.3	15.1	98.4	2.5	2.4	0.88	0.89	0.93	0.83
	5	3	3344	80.4	17.0	97.4	2.3	2.2	0.97	1.04	0.92	0.80

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.

Total agreement (%) is the sum of exact and approximate percents.

Table I-4. NYS Public Schools (Without NYC) Grade 6 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
26	Overall	2	7149	92.4	7.4	99.8	1.5	1.5	0.80	0.81	0.97	0.86
	1	2	1382	91.2	8.5	99.7	1.4	1.4	0.83	0.80	0.96	0.91
	2	2	205	93.7	6.3	100.0	1.5	1.5	0.82	0.80	0.98	0.94
	3	2	1898	92.4	7.5	99.9	1.5	1.5	0.78	0.78	0.97	0.92
	4	2	1303	91.1	8.7	99.8	1.5	1.4	0.81	0.83	0.96	0.91
	5	2	2361	93.7	6.1	99.7	1.5	1.5	0.80	0.82	0.97	0.94
27	Overall	2	7149	90.5	9.2	99.7	1.3	1.3	0.89	0.90	0.97	0.90
	1	2	1382	88.0	11.6	99.6	1.3	1.3	0.89	0.91	0.96	0.88
	2	2	205	92.7	7.3	100.0	1.4	1.5	0.79	0.78	0.97	0.93
	3	2	1898	90.1	9.6	99.7	1.3	1.3	0.88	0.91	0.96	0.90
	4	2	1303	93.6	6.1	99.7	1.3	1.3	0.92	0.94	0.98	0.94
	5	2	2361	90.3	9.3	99.6	1.4	1.4	0.88	0.88	0.96	0.90
28	Overall	2	7149	80.1	18.1	98.2	1.0	1.0	0.87	0.88	0.91	0.80
	1	2	1382	79.6	19.0	98.6	1.0	1.0	0.85	0.88	0.91	0.80
	2	2	205	78.0	19.5	97.6	1.1	1.0	0.83	0.84	0.88	0.78
	3	2	1898	81.4	17.1	98.5	1.0	1.0	0.86	0.86	0.92	0.81
	4	2	1303	82.6	15.5	98.1	1.0	0.9	0.87	0.89	0.92	0.83
	5	2	2361	78.1	19.7	97.8	1.0	1.0	0.89	0.87	0.90	0.78
29	Overall	3	7149	76.6	22.3	98.9	2.2	2.2	1.04	1.06	0.93	0.77
	1	3	1382	73.1	25.8	98.8	2.2	2.2	1.00	1.03	0.92	0.73
	2	3	205	77.1	22.0	99.0	2.4	2.2	0.97	0.95	0.92	0.77
	3	3	1898	76.0	23.0	98.9	2.3	2.2	1.04	1.03	0.93	0.76
	4	3	1303	77.2	21.9	99.1	2.3	2.1	1.06	1.09	0.94	0.77
	5	3	2361	78.8	19.9	98.7	2.2	2.1	1.06	1.09	0.94	0.79
30	Overall	2	7149	86.4	13.0	99.4	1.5	1.5	0.76	0.77	0.93	0.86
	1	2	1382	86.4	13.1	99.5	1.6	1.6	0.74	0.75	0.93	0.86
	2	2	205	88.8	10.7	99.5	1.5	1.6	0.76	0.77	0.94	0.89
	3	2	1898	85.7	13.7	99.4	1.5	1.5	0.74	0.76	0.92	0.86
	4	2	1303	85.1	14.2	99.3	1.5	1.5	0.76	0.80	0.92	0.85
	5	2	2361	87.4	12.0	99.4	1.5	1.5	0.78	0.77	0.94	0.87

Table I-4. NYS Public Schools (Without NYC) Grade 6 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
31	Overall	2	7149	84.3	13.4	97.7	0.8	0.8	0.92	0.94	0.93	0.84
	1	2	1382	85.4	12.7	98.1	0.8	0.7	0.90	0.94	0.94	0.85
	2	2	205	76.1	21.5	97.6	0.9	0.8	0.89	0.90	0.89	0.76
	3	2	1898	84.1	14.4	98.5	0.9	0.8	0.91	0.95	0.94	0.84
	4	2	1303	87.0	9.5	96.5	0.7	0.7	0.92	0.92	0.93	0.87
	5	2	2361	83.2	14.4	97.6	0.9	0.8	0.92	0.94	0.93	0.83
32	Overall	2	7149	79.1	19.5	98.6	1.5	1.5	0.69	0.68	0.85	0.79
	1	2	1382	76.6	20.8	97.3	1.5	1.6	0.68	0.64	0.79	0.77
	2	2	205	82.0	18.0	100.0	1.6	1.6	0.56	0.56	0.83	0.82
	3	2	1898	79.5	19.6	99.1	1.5	1.5	0.68	0.67	0.85	0.80
	4	2	1303	75.3	23.0	98.3	1.4	1.4	0.73	0.73	0.84	0.75
	5	2	2361	82.2	16.8	99.0	1.5	1.5	0.68	0.68	0.87	0.82
33	Overall	3	7149	76.9	21.9	98.8	1.2	1.1	1.23	1.25	0.95	0.77
	1	3	1382	72.2	26.5	98.7	1.2	1.1	1.21	1.24	0.94	0.72
	2	3	205	75.1	23.4	98.5	1.1	1.1	1.25	1.25	0.94	0.75
	3	3	1898	80.6	18.3	98.9	1.2	1.1	1.25	1.27	0.96	0.81
	4	3	1303	73.8	24.9	98.7	1.2	1.1	1.21	1.24	0.95	0.74
	5	3	2361	78.7	20.3	98.9	1.2	1.1	1.25	1.27	0.96	0.79
34	Overall	3	7149	75.8	21.3	97.1	1.8	1.8	1.22	1.24	0.94	0.76
	1	3	1382	75.8	21.6	97.4	1.8	1.8	1.22	1.25	0.94	0.76
	2	3	205	81.5	16.1	97.6	2.1	2.0	1.12	1.13	0.94	0.81
	3	3	1898	75.7	20.9	96.6	1.8	1.8	1.23	1.23	0.94	0.76
	4	3	1303	71.8	26.2	98.1	1.9	1.8	1.15	1.23	0.94	0.72
	5	3	2361	77.6	19.3	96.9	1.9	1.9	1.24	1.24	0.94	0.78
35	Overall	3	7149	85.5	13.7	99.2	1.2	1.2	1.02	1.02	0.96	0.86
	1	3	1382	84.9	14.6	99.6	1.2	1.2	1.02	0.99	0.96	0.85
	2	3	205	81.5	17.1	98.5	1.2	1.1	0.97	0.93	0.92	0.81
	3	3	1898	86.6	12.7	99.3	1.2	1.2	1.03	1.02	0.96	0.87
	4	3	1303	88.0	11.4	99.5	1.2	1.2	0.96	0.98	0.96	0.88
	5	3	2361	84.0	14.9	98.9	1.3	1.2	1.06	1.05	0.95	0.84

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table I-5. NYS Public Schools (Without NYC) Grade 7 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
31	Overall	2	7489	70.0	29.1	99.1	1.3	1.2	0.72	0.72	0.81	0.54
	1	2	1773	69.4	29.8	99.2	1.2	1.2	0.75	0.75	0.83	0.69
	2	2	384	65.1	34.1	99.2	1.3	1.3	0.70	0.70	0.77	0.65
	3	2	860	73.7	25.2	99.0	0.9	0.9	0.74	0.77	0.85	0.74
	4	2	1353	67.0	32.4	99.5	1.5	1.3	0.64	0.65	0.74	0.67
	5	2	3119	71.2	27.8	98.9	1.3	1.3	0.68	0.70	0.80	0.71
32	Overall	2	7489	82.8	17.1	99.8	1.0	0.9	0.73	0.73	0.91	0.83
	1	2	1773	87.8	12.2	100.0	0.8	0.7	0.66	0.68	0.93	0.88
	2	2	384	91.9	8.1	100.0	1.3	1.2	0.76	0.76	0.96	0.92
	3	2	860	85.0	15.0	100.0	0.6	0.5	0.65	0.67	0.91	0.85
	4	2	1353	77.2	22.6	99.9	1.2	1.0	0.67	0.64	0.85	0.77
	5	2	3119	80.6	19.1	99.6	1.1	1.0	0.73	0.75	0.90	0.81
33	Overall	3	7489	80.7	17.8	98.6	1.7	1.6	1.20	1.23	0.96	0.81
	1	3	1773	80.0	18.6	98.5	1.6	1.5	1.18	1.24	0.96	0.80
	2	3	384	78.1	20.8	99.0	2.0	1.8	1.14	1.20	0.95	0.78
	3	3	860	86.2	12.7	98.8	1.1	1.0	1.19	1.18	0.97	0.86
	4	3	1353	79.1	19.5	98.6	1.9	1.8	1.14	1.18	0.95	0.79
	5	3	3119	80.7	17.7	98.4	1.8	1.7	1.18	1.21	0.95	0.81
34	Overall	3	7489	66.8	28.9	95.7	1.2	1.0	1.17	1.19	0.90	0.67
	1	3	1773	68.6	28.4	97.1	1.0	0.8	1.05	1.05	0.90	0.69
	2	3	384	69.3	27.1	96.4	1.6	1.5	1.23	1.30	0.93	0.69
	3	3	860	62.9	32.4	95.3	0.9	0.7	1.00	0.94	0.82	0.63
	4	3	1353	68.7	25.1	93.8	1.6	1.4	1.24	1.30	0.91	0.69
	5	3	3119	65.6	30.2	95.8	1.3	1.1	1.17	1.20	0.90	0.66
35	Overall	2	7489	83.0	16.5	99.4	0.9	0.8	0.87	0.91	0.94	0.83
	1	2	1773	82.8	16.8	99.6	0.9	0.8	0.88	0.91	0.94	0.83
	2	2	384	84.4	15.4	99.7	1.2	1.0	0.83	0.91	0.94	0.84
	3	2	860	86.5	13.3	99.8	0.4	0.4	0.71	0.71	0.92	0.87
	4	2	1353	81.0	18.5	99.5	1.1	1.0	0.84	0.92	0.93	0.81
	5	2	3119	82.8	16.4	99.2	1.0	0.9	0.88	0.92	0.94	0.83
36	Overall	2	7489	86.3	13.2	99.5	1.2	1.1	0.90	0.93	0.95	0.86
	1	2	1773	86.6	13.0	99.6	1.0	1.0	0.92	0.95	0.96	0.87
	2	2	384	88.8	11.2	100.0	1.5	1.4	0.73	0.84	0.95	0.89
	3	2	860	85.6	14.1	99.7	0.7	0.7	0.88	0.89	0.95	0.86
	4	2	1353	87.1	12.6	99.6	1.4	1.4	0.79	0.84	0.94	0.87
	5	2	3119	85.7	13.7	99.4	1.2	1.2	0.87	0.92	0.95	0.86

Table I-5. NYS Public Schools (Without NYC) Grade 7 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
37	Overall	3	7489	85.3	14.2	99.5	1.3	1.3	0.76	0.77	0.93	0.85
	1	3	1773	87.4	12.1	99.5	1.1	1.1	0.57	0.59	0.88	0.87
	2	3	384	76.0	23.7	99.7	1.6	1.4	0.84	0.86	0.91	0.76
	3	3	860	89.0	10.7	99.7	1.0	0.9	0.46	0.46	0.84	0.89
	4	3	1353	86.0	13.7	99.6	1.7	1.6	0.88	0.93	0.95	0.86
	5	3	3119	84.0	15.4	99.4	1.4	1.3	0.79	0.78	0.92	0.84
38	Overall	3	7489	69.2	27.3	96.5	1.5	1.5	1.18	1.18	0.92	0.69
	1	3	1773	70.0	26.9	96.9	1.4	1.5	1.16	1.17	0.92	0.70
	2	3	384	70.3	27.6	97.9	2.0	1.8	1.13	1.12	0.92	0.70
	3	3	860	74.7	22.9	97.6	0.7	0.8	0.95	0.99	0.91	0.75
	4	3	1353	73.0	23.9	97.0	1.8	1.7	1.15	1.18	0.93	0.73
	5	3	3119	65.4	30.1	95.6	1.7	1.6	1.15	1.16	0.90	0.65

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Table I-6. NYS Public Schools (Without NYC) Grade 8 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
28	Overall	2	8592	79.1	20.6	99.7	1.1	1.0	0.82	0.89	0.92	0.73
	1	2	738	87.5	12.3	99.9	0.9	0.9	0.90	0.91	0.96	0.88
	2	2	357	90.2	9.8	100.0	1.3	1.3	0.86	0.89	0.97	0.90
	3	2	1129	83.5	16.2	99.7	0.8	0.7	0.85	0.85	0.94	0.84
	4	2	918	85.0	14.5	99.5	0.9	0.9	0.88	0.89	0.94	0.85
	5	2	5450	75.2	24.4	99.6	1.2	1.0	0.76	0.89	0.90	0.75
29	Overall	3	8592	60.3	35.2	95.5	2.1	1.9	1.08	1.08	0.87	0.60
	1	3	738	60.4	36.6	97.0	2.1	1.8	1.12	1.12	0.90	0.60
	2	3	357	69.2	28.0	97.2	2.1	1.9	1.05	1.07	0.91	0.69
	3	3	1129	63.9	33.5	97.3	1.7	1.5	1.22	1.16	0.91	0.64
	4	3	918	65.0	30.9	96.0	1.9	1.9	1.08	1.08	0.89	0.65
	5	3	5450	58.2	36.5	94.8	2.2	1.9	1.03	1.05	0.84	0.58
30	Overall	2	8592	65.5	31.3	96.8	1.4	1.2	0.77	0.77	0.78	0.66
	1	2	738	69.6	27.8	97.4	1.1	1.2	0.88	0.77	0.84	0.70
	2	2	357	70.9	25.8	96.6	1.5	1.3	0.75	0.74	0.79	0.71
	3	2	1129	62.3	32.3	94.6	1.3	1.0	0.81	0.81	0.75	0.62
	4	2	918	64.8	33.8	98.6	1.3	1.2	0.77	0.73	0.79	0.65
	5	2	5450	65.4	31.5	96.9	1.5	1.2	0.74	0.76	0.77	0.65
31	Overall	3	8592	75.5	22.6	98.0	1.4	1.4	1.25	1.27	0.95	0.75
	1	3	738	82.1	16.0	98.1	1.7	1.7	1.28	1.28	0.96	0.82
	2	3	357	79.0	18.5	97.5	1.7	1.7	1.26	1.24	0.95	0.79
	3	3	1129	77.9	20.9	98.8	1.0	1.0	1.15	1.16	0.95	0.78
	4	3	918	72.5	25.5	98.0	0.8	0.8	1.06	1.10	0.92	0.73
	5	3	5450	74.3	23.6	97.9	1.6	1.6	1.23	1.27	0.94	0.74
32	Overall	2	8592	89.0	10.9	99.9	1.1	1.1	0.76	0.78	0.95	0.89
	1	2	738	91.6	8.3	99.9	1.3	1.3	0.78	0.77	0.96	0.92
	2	2	357	94.4	5.6	100.0	1.4	1.3	0.72	0.76	0.97	0.94
	3	2	1129	86.4	13.6	100.0	0.9	0.9	0.78	0.79	0.94	0.86
	4	2	918	88.8	11.2	100.0	1.0	0.9	0.74	0.76	0.95	0.89
	5	2	5450	88.8	11.0	99.9	1.2	1.2	0.75	0.77	0.95	0.89

Table I-6. NYS Public Schools (Without NYC) Grade 8 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
33	Overall	2	8592	94.7	5.2	99.9	1.1	1.1	0.59	0.60	0.96	0.95
	1	2	738	94.4	5.6	100.0	1.0	1.0	0.51	0.51	0.94	0.94
	2	2	357	96.1	3.9	100.0	1.2	1.2	0.60	0.61	0.97	0.96
	3	2	1129	94.8	5.1	99.9	1.0	1.0	0.57	0.57	0.96	0.95
	4	2	918	96.6	3.4	100.0	1.1	1.1	0.57	0.58	0.97	0.97
	5	2	5450	94.3	5.5	99.9	1.1	1.1	0.60	0.61	0.96	0.94
34	Overall	2	8592	83.2	16.5	99.7	1.4	1.3	0.75	0.79	0.92	0.83
	1	2	738	83.2	16.7	99.9	1.3	1.3	0.80	0.81	0.93	0.83
	2	2	357	86.6	12.9	99.4	1.5	1.5	0.72	0.74	0.92	0.87
	3	2	1129	83.6	16.1	99.7	1.2	1.2	0.79	0.82	0.93	0.84
	4	2	918	83.2	16.2	99.5	1.3	1.3	0.78	0.81	0.92	0.83
	5	2	5450	82.9	16.9	99.8	1.4	1.4	0.73	0.77	0.91	0.83
35	Overall	3	8592	67.8	29.5	97.3	1.3	1.3	0.82	0.81	0.82	0.68
	1	3	738	65.7	31.6	97.3	1.2	1.3	0.81	0.84	0.82	0.66
	2	3	357	69.7	27.7	97.5	1.4	1.4	0.77	0.80	0.82	0.70
	3	3	1129	66.3	30.6	96.8	1.2	1.1	0.87	0.84	0.83	0.66
	4	3	918	65.5	32.2	97.7	1.1	1.0	0.83	0.82	0.82	0.65
	5	3	5450	68.7	28.6	97.3	1.3	1.4	0.81	0.78	0.81	0.69
36	Overall	3	8592	80.2	18.0	98.2	1.5	1.4	1.24	1.32	0.96	0.80
	1	3	738	83.1	15.9	98.9	1.6	1.5	1.22	1.29	0.97	0.83
	2	3	357	78.2	20.2	98.3	1.7	1.7	1.30	1.35	0.96	0.78
	3	3	1129	81.1	17.4	98.6	1.1	0.9	1.21	1.26	0.96	0.81
	4	3	918	75.7	21.8	97.5	1.1	0.9	1.17	1.22	0.94	0.76
	5	3	5450	80.5	17.6	98.1	1.7	1.6	1.21	1.30	0.96	0.80
37	Overall	2	8592	85.7	14.2	99.8	1.5	1.4	0.73	0.75	0.93	0.86
	1	2	738	79.9	19.6	99.6	1.4	1.4	0.78	0.80	0.91	0.80
	2	2	357	95.0	5.0	100.0	1.7	1.7	0.61	0.63	0.97	0.95
	3	2	1129	84.8	15.1	99.9	1.4	1.3	0.77	0.80	0.93	0.85
	4	2	918	88.2	11.7	99.9	1.3	1.4	0.76	0.76	0.94	0.88
	5	2	5450	85.6	14.2	99.8	1.5	1.5	0.71	0.73	0.92	0.86
38	Overall	2	8592	84.1	15.4	99.5	1.3	1.3	0.83	0.86	0.93	0.84
	1	2	738	86.6	12.9	99.5	1.4	1.3	0.81	0.85	0.94	0.87
	2	2	357	86.8	13.2	100.0	1.3	1.3	0.82	0.86	0.95	0.87
	3	2	1129	82.3	17.3	99.6	1.0	1.0	0.88	0.89	0.94	0.82
	4	2	918	76.6	22.3	98.9	1.0	1.0	0.80	0.87	0.90	0.77
	5	2	5450	85.2	14.4	99.6	1.3	1.3	0.80	0.83	0.94	0.85

Table I-6. NYS Public Schools (Without NYC) Grade 8 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
39	Overall	3	8592	73.3	24.4	97.7	1.7	1.7	1.19	1.25	0.94	0.73
	1	3	738	73.6	24.3	97.8	1.7	1.6	1.16	1.24	0.94	0.74
	2	3	357	77.3	21.6	98.9	2.1	2.0	1.18	1.19	0.95	0.77
	3	3	1129	74.0	24.8	98.8	1.3	1.3	1.21	1.24	0.95	0.74
	4	3	918	73.6	24.1	97.7	1.6	1.5	1.19	1.29	0.94	0.74
	5	3	5450	72.7	24.6	97.4	1.8	1.8	1.17	1.23	0.93	0.73
40	Overall	2	8592	81.6	18.1	99.8	1.1	1.1	0.77	0.78	0.91	0.82
	1	2	738	77.1	22.6	99.7	1.1	1.1	0.79	0.82	0.90	0.77
	2	2	357	77.0	22.4	99.4	1.1	1.2	0.81	0.77	0.89	0.77
	3	2	1129	86.4	13.6	99.9	0.9	0.9	0.77	0.79	0.94	0.86
	4	2	918	83.4	16.2	99.7	0.9	0.9	0.66	0.71	0.90	0.83
	5	2	5450	81.2	18.5	99.8	1.1	1.1	0.77	0.77	0.91	0.81
41	Overall	2	8592	86.6	12.9	99.5	1.2	1.2	0.87	0.89	0.95	0.87
	1	2	738	87.3	12.3	99.6	1.3	1.2	0.84	0.89	0.95	0.87
	2	2	357	87.1	11.5	98.6	1.3	1.3	0.85	0.89	0.94	0.87
	3	2	1129	88.3	11.6	99.9	0.9	0.9	0.91	0.91	0.96	0.88
	4	2	918	81.0	18.0	99.0	0.8	0.8	0.88	0.88	0.92	0.81
	5	2	5450	87.0	12.5	99.5	1.3	1.3	0.84	0.86	0.95	0.87
42	Overall	3	8592	62.1	35.3	97.4	1.8	1.8	0.96	0.97	0.86	0.62
	1	3	738	66.3	29.9	96.2	1.7	1.7	0.88	0.92	0.84	0.66
	2	3	357	57.7	35.9	93.6	1.8	1.9	1.00	1.02	0.82	0.58
	3	3	1129	53.9	44.6	98.5	1.5	1.6	0.95	0.94	0.84	0.54
	4	3	918	60.7	36.7	97.4	1.8	1.8	0.90	0.96	0.84	0.61
	5	3	5450	63.8	33.8	97.7	1.8	1.9	0.97	0.97	0.87	0.64
43	Overall	3	8592	57.6	37.9	95.5	1.8	1.5	0.99	1.02	0.84	0.58
	1	3	738	59.2	33.6	92.8	1.7	1.5	1.10	1.12	0.85	0.59
	2	3	357	62.5	35.3	97.8	2.0	1.8	0.98	1.07	0.88	0.62
	3	3	1129	59.0	36.8	95.7	1.5	1.3	1.05	1.04	0.86	0.59
	4	3	918	64.4	33.0	97.4	1.5	1.4	0.98	0.96	0.87	0.64
	5	3	5450	55.6	39.7	95.3	1.9	1.6	0.93	1.00	0.82	0.56

Table I-6. NYS Public Schools (Without NYC) Grade 8 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
44	Overall	2	8592	76.3	20.9	97.2	1.2	1.1	0.89	0.92	0.89	0.76
	1	2	738	79.4	16.8	96.2	1.0	1.1	0.93	0.92	0.90	0.79
	2	2	357	79.3	18.5	97.8	1.4	1.2	0.88	0.90	0.91	0.79
	3	2	1129	73.4	23.7	97.2	0.9	0.9	0.89	0.91	0.88	0.73
	4	2	918	79.3	17.4	96.7	1.0	1.0	0.91	0.93	0.90	0.79
	5	2	5450	75.7	21.6	97.4	1.2	1.2	0.87	0.92	0.89	0.76
45	Overall	2	8592	80.6	18.7	99.3	1.3	1.3	0.86	0.88	0.92	0.81
	1	2	738	78.7	19.6	98.4	1.3	1.3	0.88	0.88	0.91	0.79
	2	2	357	79.6	20.2	99.7	1.4	1.3	0.80	0.88	0.92	0.80
	3	2	1129	78.0	20.9	98.9	1.1	1.1	0.91	0.92	0.92	0.78
	4	2	918	81.6	17.3	98.9	1.3	1.4	0.85	0.87	0.92	0.82
	5	2	5450	81.2	18.3	99.5	1.4	1.4	0.84	0.86	0.92	0.81

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Appendix J

Item Level Statistics for Mathematics Including New York City Schools Only

Table J-1. NYS Public Schools Grades 3 - 8 Mathematics Operational Test 2006: Inter-rater Agreement

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
Grade 3												
26	NYC	2	4624	96.1	3.7	99.8	1.8	1.8	0.47	0.49	0.95	0.96
27	NYC	2	4624	81.0	18.9	99.9	1.2	1.2	0.62	0.62	0.86	0.81
28	NYC	3	4624	89.8	9.7	99.5	2.2	2.1	0.95	0.96	0.97	0.90
29	NYC	3	4624	84.2	15.1	99.3	2.2	2.2	0.77	0.77	0.92	0.84
30	NYC	2	4624	87.0	12.5	99.5	1.5	1.5	0.75	0.76	0.93	0.87
31	NYC	2	4624	80.6	18.6	99.2	1.2	1.2	0.76	0.77	0.90	0.81
Grade 4												
31	NYC	2	4511	88.3	11.4	99.7	1.5	1.5	0.75	0.71	0.94	0.88
32	NYC	3	4511	89.3	10.0	99.3	2.7	2.7	0.69	0.71	0.93	0.89
33	NYC	2	4511	84.9	14.8	99.7	0.9	0.9	0.72	0.70	0.92	0.85
34	NYC	2	4511	88.8	11.0	99.9	1.3	1.4	0.73	0.68	0.94	0.89
35	NYC	2	4511	93.6	5.8	99.4	1.5	1.5	0.83	0.84	0.97	0.94
36	NYC	2	4511	88.3	11.0	99.2	1.1	1.1	0.93	0.96	0.96	0.88
37	NYC	2	4511	93.2	6.5	99.7	1.1	1.1	0.90	0.90	0.98	0.93
38	NYC	3	4511	68.8	29.2	98.0	2.2	2.3	0.84	0.82	0.84	0.69
39	NYC	2	4511	89.3	10.2	99.6	1.3	1.3	0.87	0.87	0.96	0.89
40	NYC	2	4511	96.1	3.7	99.8	1.6	1.6	0.71	0.71	0.98	0.96
41	NYC	2	4511	89.8	9.9	99.7	1.5	1.5	0.78	0.78	0.95	0.90
42	NYC	2	4511	88.2	11.5	99.7	1.0	1.0	0.87	0.87	0.96	0.88
43	NYC	2	4511	86.9	12.8	99.8	1.1	1.1	0.86	0.88	0.95	0.87
44	NYC	2	4511	91.2	8.6	99.8	1.5	1.5	0.67	0.68	0.94	0.91
45	NYC	3	4511	86.7	12.3	99.0	2.4	2.5	0.91	0.91	0.95	0.87
46	NYC	2	4511	86.3	13.6	99.8	1.1	1.0	0.58	0.56	0.88	0.86
47	NYC	3	4511	82.6	16.8	99.4	2.1	2.1	1.10	1.12	0.96	0.83
48	NYC	2	4511	86.0	13.8	99.8	1.2	1.2	0.82	0.84	0.94	0.86
Grade 5												
27	NYC	2	4640	90.7	9.0	99.7	1.5	1.5	0.80	0.84	0.95	0.91
28	NYC	3	4640	91.6	6.5	98.1	2.6	2.6	0.80	0.84	0.92	0.92
29	NYC	3	4640	86.9	10.4	97.3	1.2	1.2	1.35	1.35	0.97	0.87
30	NYC	2	4640	76.5	20.5	97.0	1.1	1.2	0.88	0.88	0.88	0.77
31	NYC	2	4640	94.2	5.7	99.9	1.3	1.3	0.58	0.59	0.95	0.94
32	NYC	2	4640	84.9	14.6	99.5	0.8	0.8	0.84	0.86	0.94	0.85
33	NYC	3	4640	57.2	36.6	93.8	1.8	1.9	0.97	1.02	0.81	0.57
34	NYC	3	4640	75.2	22.7	97.9	2.2	2.1	0.97	1.05	0.90	0.75

Table J-1. NYS Public Schools Grades 3 - 8 Mathematics Operational Test 2006: Inter-rater Agreement (continued)

Item #	Scoring Model	Score Points	Total N	Agreement (%)			RS Mean		RS SD		Intra-Class Correlation	Weighted Kappa
				Exact	Approx.	Total	Local	Audit	Local	Audit		
Grade 6												
26	NYC	2	4746	92.4	7.4	99.8	1.4	1.4	0.84	0.85	0.97	0.92
27	NYC	2	4746	90.0	9.3	99.4	1.2	1.2	0.93	0.94	0.97	0.90
28	NYC	2	4746	78.2	20.3	98.4	0.8	0.8	0.87	0.86	0.90	0.78
29	NYC	3	4746	76.1	22.3	98.4	1.9	1.9	1.14	1.14	0.94	0.76
30	NYC	2	4746	83.5	15.7	99.3	1.5	1.5	0.77	0.78	0.92	0.84
31	NYC	2	4746	85.0	12.7	97.7	0.7	0.7	0.87	0.89	0.92	0.85
32	NYC	2	4746	75.3	23.6	98.8	1.4	1.4	0.74	0.71	0.85	0.75
33	NYC	3	4746	81.2	17.7	98.9	1.0	1.0	1.20	1.21	0.96	0.81
34	NYC	3	4746	79.2	17.5	96.7	1.7	1.7	1.28	1.29	0.95	0.79
35	NYC	3	4746	85.5	13.7	99.2	1.1	1.0	1.05	1.05	0.96	0.85
Grade 7												
31	NYC	2	4810	72.2	27.3	99.5	1.1	1.1	0.75	0.77	0.86	0.72
32	NYC	2	4810	84.3	15.6	99.9	0.7	0.7	0.66	0.69	0.90	0.84
33	NYC	3	4810	80.2	18.8	99.0	1.4	1.3	1.21	1.25	0.96	0.80
34	NYC	3	4810	66.1	31.3	97.4	0.8	0.7	0.93	0.94	0.86	0.66
35	NYC	2	4810	82.0	17.7	99.7	0.7	0.6	0.83	0.85	0.93	0.82
36	NYC	2	4810	85.2	14.5	99.7	1.0	0.9	0.91	0.95	0.95	0.85
37	NYC	3	4810	85.0	14.4	99.5	1.1	1.1	0.61	0.59	0.87	0.85
38	NYC	3	4810	71.1	25.8	96.9	1.2	1.2	1.14	1.19	0.92	0.71
Grade 8												
28	NYC	2	4633	75.8	23.6	99.4	0.7	0.6	0.80	0.80	0.89	0.76
29	NYC	3	4633	61.1	34.1	95.3	1.5	1.3	1.25	1.17	0.90	0.61
30	NYC	2	4633	62.2	35.5	97.7	1.1	0.9	0.87	0.77	0.81	0.62
31	NYC	3	4633	78.6	19.4	97.9	0.8	0.8	1.13	1.14	0.94	0.79
32	NYC	2	4633	87.4	12.4	99.8	0.7	0.7	0.76	0.75	0.94	0.87
33	NYC	2	4633	93.8	6.1	99.9	1.2	1.1	0.64	0.64	0.96	0.94
34	NYC	2	4633	83.1	16.4	99.6	1.1	1.1	0.83	0.85	0.93	0.83
35	NYC	2	4633	70.6	26.2	96.8	0.9	1.0	0.86	0.87	0.85	0.71
36	NYC	3	4633	82.1	16.3	98.4	0.9	0.8	1.14	1.18	0.95	0.82
37	NYC	2	4633	80.5	19.2	99.7	1.1	1.1	0.80	0.82	0.92	0.81
38	NYC	2	4633	81.7	17.3	99.0	0.8	0.9	0.88	0.90	0.93	0.82
39	NYC	3	4633	73.3	25.2	98.5	1.1	1.1	1.18	1.19	0.94	0.73
40	NYC	2	4633	81.7	18.0	99.7	0.8	0.8	0.73	0.77	0.91	0.82
41	NYC	2	4633	82.1	16.6	98.7	0.8	0.8	0.87	0.90	0.93	0.82
42	NYC	3	4633	64.6	32.1	96.7	1.6	1.7	1.02	1.05	0.88	0.65
43	NYC	3	4633	58.9	36.8	95.7	1.3	1.2	1.04	1.03	0.85	0.59
44	NYC	2	4633	76.1	20.3	96.4	0.8	0.9	0.89	0.92	0.88	0.76
45	NYC	2	4633	82.2	16.5	98.7	0.9	1.0	0.92	0.93	0.93	0.82

Approximate agreement (%) is the percent of pairs of readers that differ by one score point.
 Total agreement (%) is the sum of exact and approximate percents.

Appendix K

Item Level Differences for English Including All Schools in State

**Table K-1. NYS Public Schools Grade 3 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall			0.00	0.00	0.01	0.98	0.01	0.00	0.00		
	1			0.00	0.00	0.01	0.97	0.02	0.00	0.00		
	2			0.00	0.00	0.00	0.98	0.01	0.00	0.00		
	3			0.00	0.00	0.01	0.98	0.01	0.00	0.00		
	4			0.00	0.00	0.01	0.98	0.01	0.00	0.00		
	5			0.00	0.00	0.01	0.97	0.02	0.00	0.00		
ELA2	Overall			0.00	0.01	0.21	0.63	0.15	0.01	0.00		
	1			0.00	0.01	0.20	0.62	0.17	0.01	0.00		
	2			0.00	0.01	0.21	0.59	0.19	0.00	0.00		
	3			0.00	0.01	0.22	0.63	0.14	0.01	0.00		
	4			0.00	0.01	0.22	0.63	0.12	0.01	0.00		
	5			0.00	0.01	0.19	0.69	0.12	0.00	0.00		
ELA3	Overall			0.00	0.01	0.16	0.72	0.11	0.00	0.00		
	1			0.00	0.01	0.17	0.69	0.13	0.00	0.00		
	2			0.00	0.00	0.15	0.79	0.06	0.00	0.00		
	3			0.00	0.01	0.18	0.72	0.09	0.00	0.00		
	4			0.00	0.00	0.15	0.74	0.11	0.00	0.00		
	5			0.00	0.01	0.11	0.76	0.12	0.00	0.00		
ELA4	Overall			0.00	0.01	0.05	0.86	0.07	0.01	0.00		
	1			0.00	0.01	0.05	0.85	0.07	0.01	0.00		
	2			0.00	0.02	0.05	0.88	0.05	0.00	0.00		
	3			0.00	0.01	0.05	0.86	0.07	0.01	0.00		
	4			0.00	0.01	0.05	0.88	0.04	0.01	0.01		
	5			0.00	0.01	0.04	0.89	0.05	0.01	0.00		

**Table K-2. NYS Public Schools Grade 4 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall		0.00	0.00	0.04	0.32	0.49	0.14	0.01	0.00	0.00	
	1		0.00	0.00	0.03	0.29	0.51	0.15	0.01	0.00	0.00	
	2		0.00	0.00	0.03	0.31	0.54	0.12	0.01	0.00	0.00	
	3		0.00	0.00	0.06	0.38	0.45	0.10	0.01	0.00	0.00	
	4		0.02	0.02	0.04	0.33	0.44	0.14	0.01	0.00	0.00	
	5		0.00	0.00	0.05	0.35	0.44	0.14	0.01	0.00	0.00	
ELA2	Overall		0.01	0.01	0.02	0.21	0.55	0.19	0.01	0.00	0.00	
	1		0.00	0.00	0.01	0.21	0.55	0.21	0.01	0.00	0.00	
	2		0.00	0.00	0.00	0.11	0.70	0.18	0.01	0.00	0.00	
	3		0.00	0.00	0.02	0.23	0.57	0.17	0.01	0.00	0.00	
	4		0.00	0.00	0.02	0.21	0.51	0.23	0.02	0.00	0.00	
	5		0.08	0.06	0.04	0.23	0.45	0.14	0.01	0.00	0.00	
ELA3	Overall		0.00	0.01	0.01	0.20	0.61	0.16	0.01	0.00	0.00	
	1		0.00	0.00	0.01	0.20	0.62	0.17	0.01	0.00	0.00	
	2		0.00	0.00	0.01	0.14	0.67	0.18	0.00	0.00	0.00	
	3		0.00	0.00	0.01	0.23	0.63	0.13	0.00	0.00	0.00	
	4		0.00	0.03	0.02	0.16	0.58	0.21	0.01	0.00	0.00	
	5		0.00	0.09	0.06	0.19	0.52	0.12	0.01	0.00	0.00	

Table K-3. NYS Public Schools Grade 5 ELA Operational Test 2006: Percentages of score differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall			0.00	0.01	0.19	0.69	0.10	0.01	0.00		
	1			0.00	0.02	0.18	0.68	0.11	0.01	0.00		
	2			0.00	0.01	0.21	0.69	0.09	0.00	0.00		
	3			0.00	0.01	0.18	0.70	0.10	0.01	0.00		
	4			0.00	0.02	0.19	0.73	0.06	0.00	0.00		
	5			0.00	0.01	0.21	0.70	0.08	0.01	0.00		
ELA2	Overall			0.00	0.01	0.18	0.74	0.07	0.00	0.00		
	1			0.00	0.01	0.20	0.71	0.07	0.00	0.00		
	2			0.00	0.01	0.07	0.78	0.13	0.01	0.00		
	3			0.00	0.01	0.15	0.76	0.07	0.00	0.00		
	4			0.00	0.00	0.11	0.83	0.05	0.00	0.00		
	5			0.00	0.01	0.17	0.74	0.07	0.00	0.00		
ELA3	Overall			0.00	0.01	0.11	0.73	0.13	0.01	0.00		
	1			0.00	0.01	0.13	0.74	0.11	0.01	0.00		
	2			0.00	0.01	0.10	0.68	0.19	0.02	0.00		
	3			0.00	0.01	0.09	0.72	0.16	0.02	0.00		
	4			0.00	0.01	0.13	0.71	0.14	0.01	0.00		
	5			0.00	0.01	0.10	0.74	0.14	0.01	0.00		

**Table K-4. NYS Public Schools Grade 6 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall	0.00	0.00	0.01	0.08	0.34	0.41	0.15	0.02	0.00	0.00	0.00
	1	0.00	0.00	0.01	0.07	0.33	0.41	0.16	0.02	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.04	0.28	0.44	0.23	0.01	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.10	0.37	0.40	0.12	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.09	0.36	0.40	0.13	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.08	0.37	0.41	0.12	0.01	0.00	0.00	0.00
ELA2	Overall	0.00	0.01	0.01	0.09	0.34	0.39	0.13	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.01	0.09	0.34	0.40	0.14	0.02	0.00	0.00	0.00
	2	0.02	0.08	0.16	0.13	0.24	0.28	0.08	0.02	0.00	0.00	0.00
	3	0.03	0.02	0.01	0.07	0.30	0.40	0.15	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.07	0.35	0.41	0.15	0.02	0.00	0.00	0.00
	5	0.00	0.00	0.01	0.14	0.40	0.35	0.09	0.01	0.00	0.00	0.00
ELA3	Overall	0.00	0.00	0.01	0.02	0.19	0.59	0.19	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.00	0.01	0.19	0.60	0.20	0.01	0.00	0.00	0.00
	2	0.00	0.00	0.09	0.25	0.16	0.36	0.14	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.03	0.03	0.17	0.57	0.18	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.01	0.16	0.59	0.23	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.01	0.21	0.62	0.16	0.00	0.00	0.00	0.00

**Table K-5. NYS Public Schools Grade 7 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall			0.00	0.02	0.27	0.62	0.09	0.00	0.00		
	1			0.00	0.02	0.27	0.62	0.08	0.00	0.00		
	2			0.00	0.01	0.21	0.65	0.12	0.00	0.00		
	3			0.00	0.02	0.28	0.61	0.07	0.01	0.00		
	4			0.00	0.02	0.30	0.61	0.07	0.00	0.00		
	5			0.00	0.01	0.26	0.63	0.10	0.00	0.00		
ELA2	Overall			0.00	0.06	0.30	0.53	0.10	0.01	0.00		
	1			0.00	0.06	0.30	0.52	0.11	0.01	0.00		
	2			0.00	0.06	0.28	0.55	0.10	0.01	0.00		
	3			0.00	0.04	0.31	0.53	0.11	0.01	0.00		
	4			0.00	0.05	0.29	0.59	0.07	0.00	0.00		
	5			0.00	0.06	0.32	0.51	0.10	0.01	0.00		
ELA3	Overall			0.00	0.01	0.20	0.65	0.14	0.01	0.00		
	1			0.00	0.01	0.21	0.64	0.14	0.00	0.00		
	2			0.00	0.01	0.16	0.67	0.16	0.01	0.00		
	3			0.00	0.01	0.21	0.60	0.17	0.00	0.00		
	4			0.00	0.00	0.20	0.66	0.13	0.00	0.00		
	5			0.00	0.01	0.20	0.67	0.12	0.01	0.00		
ELA4	Overall			0.00	0.01	0.13	0.75	0.11	0.00	0.00		
	1			0.00	0.01	0.13	0.75	0.11	0.01	0.00		
	2			0.00	0.01	0.11	0.79	0.09	0.00	0.00		
	3			0.00	0.01	0.16	0.73	0.09	0.01	0.00		
	4			0.00	0.00	0.13	0.76	0.10	0.00	0.00		
	5			0.00	0.01	0.10	0.76	0.13	0.00	0.00		
ELA5	Overall			0.00	0.01	0.14	0.72	0.12	0.01	0.00		
	1			0.00	0.01	0.12	0.74	0.11	0.01	0.00		
	2			0.00	0.02	0.16	0.66	0.15	0.01	0.00		
	3			0.00	0.01	0.09	0.81	0.09	0.00	0.00		
	4			0.00	0.02	0.18	0.68	0.11	0.01	0.00		
	5			0.00	0.02	0.16	0.68	0.13	0.01	0.00		

**Table K-6. NYS Public Schools Grade 8 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall	0.00	0.00	0.00	0.06	0.35	0.43	0.14	0.02	0.00	0.00	0.00
	1	0.00	0.00	0.00	0.05	0.31	0.45	0.17	0.02	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.10	0.45	0.37	0.07	0.01	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.06	0.36	0.44	0.13	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.01	0.11	0.45	0.35	0.06	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.06	0.36	0.43	0.13	0.01	0.00	0.00	0.00
ELA2	Overall	0.00	0.00	0.01	0.11	0.39	0.38	0.11	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.01	0.10	0.37	0.39	0.13	0.01	0.00	0.00	0.00
	2	0.00	0.00	0.01	0.09	0.33	0.42	0.14	0.01	0.00	0.00	0.00
	3	0.00	0.00	0.01	0.11	0.43	0.38	0.08	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.02	0.16	0.47	0.29	0.06	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.01	0.10	0.38	0.39	0.11	0.01	0.00	0.00	0.00
ELA3	Overall	0.00	0.00	0.00	0.01	0.17	0.62	0.19	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.00	0.00	0.18	0.62	0.19	0.01	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.01	0.16	0.64	0.19	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.01	0.18	0.61	0.19	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.02	0.21	0.64	0.12	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.01	0.15	0.62	0.21	0.00	0.00	0.00	0.00

Appendix L

Item Level Differences for English All Schools in State Without New York City Schools

**Table L-1. NYS Public Schools Grade 3 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall			0.00	0.00	0.01	0.98	0.01	0.00	0.00		
	1			0.00	0.00	0.01	0.97	0.01	0.00	0.00		
	2			0.00	0.00	0.00	0.98	0.01	0.00	0.00		
	3			0.00	0.00	0.01	0.98	0.01	0.00	0.00		
	4			0.00	0.00	0.01	0.98	0.01	0.00	0.00		
	5			0.00	0.00	0.01	0.97	0.02	0.00	0.00		
ELA2	Overall			0.00	0.01	0.20	0.63	0.15	0.01	0.00		
	1			0.00	0.01	0.16	0.63	0.20	0.01	0.00		
	2			0.00	0.01	0.21	0.59	0.19	0.00	0.00		
	3			0.00	0.01	0.22	0.63	0.14	0.01	0.00		
	4			0.00	0.01	0.22	0.63	0.12	0.01	0.00		
	5			0.00	0.01	0.19	0.69	0.12	0.00	0.00		
ELA3	Overall			0.00	0.01	0.15	0.73	0.10	0.00	0.00		
	1			0.00	0.01	0.12	0.73	0.13	0.01	0.00		
	2			0.00	0.00	0.15	0.79	0.06	0.00	0.00		
	3			0.00	0.01	0.18	0.72	0.09	0.00	0.00		
	4			0.00	0.00	0.15	0.74	0.11	0.00	0.00		
	5			0.00	0.01	0.11	0.76	0.12	0.00	0.00		
ELA4	Overall			0.00	0.01	0.05	0.87	0.06	0.01	0.00		
	1			0.00	0.01	0.05	0.86	0.06	0.01	0.00		
	2			0.00	0.02	0.05	0.88	0.05	0.00	0.00		
	3			0.00	0.01	0.05	0.86	0.07	0.01	0.00		
	4			0.00	0.01	0.05	0.88	0.04	0.01	0.01		
	5			0.00	0.01	0.04	0.89	0.05	0.01	0.00		

**Table L-2. NYS Public Schools Grade 4 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall		0.00	0.00	0.04	0.32	0.48	0.14	0.01	0.00	0.00	
	1		0.00	0.00	0.03	0.25	0.52	0.18	0.02	0.00	0.00	
	2		0.00	0.00	0.03	0.31	0.54	0.12	0.01	0.00	0.00	
	3		0.00	0.00	0.06	0.38	0.45	0.10	0.01	0.00	0.00	
	4		0.02	0.02	0.04	0.33	0.44	0.14	0.01	0.00	0.00	
	5		0.00	0.00	0.05	0.35	0.44	0.14	0.01	0.00	0.00	
ELA2	Overall		0.01	0.01	0.02	0.21	0.54	0.20	0.01	0.00	0.00	
	1		0.00	0.00	0.01	0.18	0.56	0.24	0.02	0.00	0.00	
	2		0.00	0.00	0.00	0.11	0.70	0.18	0.01	0.00	0.00	
	3		0.00	0.00	0.02	0.23	0.57	0.17	0.01	0.00	0.00	
	4		0.00	0.00	0.02	0.21	0.51	0.23	0.02	0.00	0.00	
	5		0.08	0.06	0.04	0.23	0.45	0.14	0.01	0.00	0.00	
ELA3	Overall		0.00	0.02	0.02	0.19	0.60	0.17	0.01	0.00	0.00	
	1		0.00	0.00	0.00	0.15	0.62	0.22	0.01	0.00	0.00	
	2		0.00	0.00	0.01	0.14	0.67	0.18	0.00	0.00	0.00	
	3		0.00	0.00	0.01	0.23	0.63	0.13	0.00	0.00	0.00	
	4		0.00	0.03	0.02	0.16	0.58	0.21	0.01	0.00	0.00	
	5		0.00	0.09	0.06	0.19	0.52	0.12	0.01	0.00	0.00	

**Table L-3. NYS Public Schools Grade 5 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall			0.00	0.01	0.18	0.71	0.10	0.01	0.00		
	1			0.00	0.01	0.14	0.72	0.12	0.01	0.00		
	2			0.00	0.01	0.21	0.69	0.09	0.00	0.00		
	3			0.00	0.01	0.18	0.70	0.10	0.01	0.00		
	4			0.00	0.02	0.19	0.73	0.06	0.00	0.00		
	5			0.00	0.01	0.21	0.70	0.08	0.01	0.00		
ELA2	Overall			0.00	0.01	0.16	0.75	0.07	0.00	0.00		
	1			0.00	0.01	0.20	0.72	0.07	0.00	0.00		
	2			0.00	0.01	0.07	0.78	0.13	0.01	0.00		
	3			0.00	0.01	0.15	0.76	0.07	0.00	0.00		
	4			0.00	0.00	0.11	0.83	0.05	0.00	0.00		
	5			0.00	0.01	0.17	0.74	0.07	0.00	0.00		
ELA3	Overall			0.00	0.01	0.10	0.73	0.15	0.01	0.00		
	1			0.00	0.01	0.11	0.74	0.12	0.01	0.00		
	2			0.00	0.01	0.10	0.68	0.19	0.02	0.00		
	3			0.00	0.01	0.09	0.72	0.16	0.02	0.00		
	4			0.00	0.01	0.13	0.71	0.14	0.01	0.00		
	5			0.00	0.01	0.10	0.74	0.14	0.01	0.00		

**Table L-4. NYS Public Schools Grade 6 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall	0.00	0.00	0.00	0.08	0.35	0.41	0.14	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.01	0.06	0.32	0.43	0.17	0.02	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.04	0.28	0.44	0.23	0.01	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.10	0.37	0.40	0.12	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.09	0.36	0.40	0.13	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.08	0.37	0.41	0.12	0.01	0.00	0.00	0.00
ELA2	Overall	0.01	0.01	0.02	0.09	0.35	0.38	0.13	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.01	0.07	0.37	0.39	0.14	0.02	0.00	0.00	0.00
	2	0.02	0.08	0.16	0.13	0.24	0.28	0.08	0.02	0.00	0.00	0.00
	3	0.03	0.02	0.01	0.07	0.30	0.40	0.15	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.07	0.35	0.41	0.15	0.02	0.00	0.00	0.00
	5	0.00	0.00	0.01	0.14	0.40	0.35	0.09	0.01	0.00	0.00	0.00
ELA3	Overall	0.00	0.00	0.01	0.02	0.18	0.59	0.18	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.00	0.01	0.18	0.63	0.17	0.01	0.00	0.00	0.00
	2	0.00	0.00	0.09	0.25	0.16	0.36	0.14	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.03	0.03	0.17	0.57	0.18	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.01	0.16	0.59	0.23	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.01	0.21	0.62	0.16	0.00	0.00	0.00	0.00

**Table L-5. NYS Public Schools Grade 7 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall			0.00	0.01	0.27	0.62	0.09	0.00	0.00		
	1			0.00	0.02	0.30	0.60	0.08	0.00	0.00		
	2			0.00	0.01	0.21	0.65	0.12	0.00	0.00		
	3			0.00	0.02	0.28	0.61	0.07	0.01	0.00		
	4			0.00	0.02	0.30	0.61	0.07	0.00	0.00		
	5			0.00	0.01	0.26	0.63	0.10	0.00	0.00		
ELA2	Overall			0.00	0.06	0.29	0.54	0.11	0.01	0.00		
	1			0.00	0.06	0.26	0.55	0.13	0.01	0.00		
	2			0.00	0.06	0.28	0.55	0.10	0.01	0.00		
	3			0.00	0.04	0.31	0.53	0.11	0.01	0.00		
	4			0.00	0.05	0.29	0.59	0.07	0.00	0.00		
	5			0.00	0.06	0.32	0.51	0.10	0.01	0.00		
ELA3	Overall			0.00	0.01	0.20	0.66	0.14	0.01	0.00		
	1			0.00	0.01	0.21	0.65	0.13	0.00	0.00		
	2			0.00	0.01	0.16	0.67	0.16	0.01	0.00		
	3			0.00	0.01	0.21	0.60	0.17	0.00	0.00		
	4			0.00	0.00	0.20	0.66	0.13	0.00	0.00		
	5			0.00	0.01	0.20	0.67	0.12	0.01	0.00		
ELA4	Overall			0.00	0.01	0.11	0.77	0.11	0.00	0.00		
	1			0.00	0.00	0.10	0.78	0.11	0.00	0.00		
	2			0.00	0.01	0.11	0.79	0.09	0.00	0.00		
	3			0.00	0.01	0.16	0.73	0.09	0.01	0.00		
	4			0.00	0.00	0.13	0.76	0.10	0.00	0.00		
	5			0.00	0.01	0.10	0.76	0.13	0.00	0.00		
ELA5	Overall			0.00	0.02	0.15	0.70	0.12	0.01	0.00		
	1			0.00	0.01	0.12	0.74	0.11	0.01	0.00		
	2			0.00	0.02	0.16	0.66	0.15	0.01	0.00		
	3			0.00	0.01	0.09	0.81	0.09	0.00	0.00		
	4			0.00	0.02	0.18	0.68	0.11	0.01	0.00		
	5			0.00	0.02	0.16	0.68	0.13	0.01	0.00		

**Table L-6. NYS Public Schools Grade 8 ELA Operational Test 2006: Percentages of Score Differences
[Audit Scoring minus Local Scoring]**

Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	Overall	0.00	0.00	0.01	0.07	0.37	0.42	0.12	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.00	0.04	0.31	0.47	0.15	0.01	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.10	0.45	0.37	0.07	0.01	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.06	0.36	0.44	0.13	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.01	0.11	0.45	0.35	0.06	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.06	0.36	0.43	0.13	0.01	0.00	0.00	0.00
ELA2	Overall	0.00	0.00	0.01	0.11	0.41	0.37	0.10	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.01	0.09	0.38	0.38	0.13	0.01	0.00	0.00	0.00
	2	0.00	0.00	0.01	0.09	0.33	0.42	0.14	0.01	0.00	0.00	0.00
	3	0.00	0.00	0.01	0.11	0.43	0.38	0.08	0.01	0.00	0.00	0.00
	4	0.00	0.00	0.02	0.16	0.47	0.29	0.06	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.01	0.10	0.38	0.39	0.11	0.01	0.00	0.00	0.00
ELA3	Overall	0.00	0.00	0.00	0.01	0.17	0.63	0.19	0.01	0.00	0.00	0.00
	1	0.00	0.00	0.00	0.01	0.15	0.64	0.20	0.01	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.01	0.16	0.64	0.19	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.01	0.18	0.61	0.19	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.02	0.21	0.64	0.12	0.01	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.01	0.15	0.62	0.21	0.00	0.00	0.00	0.00

Appendix M

Item Level Differences for English Including New York City Schools Only

Table M-1. NYS Public Schools Grade 3 – 8 ELA Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Grade 3												
Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	NYC			0.00	0.00	0.01	0.97	0.02	0.00	0.00		
ELA2	NYC			0.00	0.02	0.21	0.61	0.16	0.01	0.00		
ELA3	NYC			0.00	0.01	0.18	0.68	0.13	0.00	0.00		
ELA4	NYC			0.00	0.01	0.06	0.85	0.07	0.01	0.00		
Grade 4												
Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	NYC		0.00	0.00	0.03	0.31	0.51	0.13	0.01	0.00	0.00	
ELA2	NYC		0.00	0.00	0.02	0.23	0.55	0.19	0.01	0.00	0.00	
ELA3	NYC		0.00	0.00	0.01	0.23	0.62	0.14	0.00	0.00	0.00	
Grade 5												
Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	NYC			0.00	0.02	0.20	0.67	0.11	0.01	0.00		
ELA2	NYC			0.00	0.01	0.21	0.70	0.07	0.00	0.00		
ELA3	NYC			0.00	0.01	0.14	0.74	0.10	0.01	0.00		
Grade 6												
Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	NYC	0.00	0.00	0.01	0.08	0.33	0.40	0.15	0.02	0.00	0.00	0.00
ELA2	NYC	0.00	0.00	0.01	0.09	0.33	0.41	0.14	0.02	0.00	0.00	0.00
ELA3	NYC	0.00	0.00	0.00	0.01	0.20	0.58	0.21	0.01	0.00	0.00	0.00
Grade 7												
Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	NYC			0.00	0.02	0.26	0.63	0.09	0.00	0.00		
ELA2	NYC			0.00	0.06	0.32	0.51	0.10	0.01	0.00		
ELA3	NYC			0.00	0.01	0.21	0.63	0.14	0.01	0.00		
ELA4	NYC			0.00	0.01	0.15	0.73	0.11	0.01	0.00		
ELA5	NYC			0.00	0.01	0.12	0.74	0.11	0.01	0.00		
Grade 8												
Item #	Scoring Model	-5	-4	-3	-2	-1	0	1	2	3	4	5
ELA1	NYC	0.00	0.00	0.00	0.06	0.31	0.44	0.17	0.02	0.00	0.00	0.00
ELA2	NYC	0.00	0.00	0.01	0.10	0.36	0.39	0.13	0.01	0.00	0.00	0.00
ELA3	NYC	0.00	0.00	0.00	0.00	0.19	0.61	0.19	0.01	0.00	0.00	0.00

Appendix N

Item Level Differences for Mathematics Including All Schools in State

Table N-1. NYS Public Schools Grade 3 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.02	0.96	0.01	0.00	0.00
	1	0.00	0.00	0.02	0.96	0.02	0.00	0.00
	2	0.00	0.01	0.01	0.98	0.00	0.00	0.00
	3	0.00	0.00	0.02	0.96	0.01	0.00	0.00
	4	0.00	0.00	0.05	0.94	0.01	0.00	0.00
	5	0.00	0.00	0.01	0.97	0.01	0.00	0.00
MATH 2	Overall	0.00	0.00	0.10	0.80	0.09	0.00	0.00
	1	0.00	0.00	0.10	0.81	0.09	0.00	0.00
	2	0.00	0.00	0.18	0.75	0.07	0.00	0.00
	3	0.00	0.00	0.09	0.80	0.10	0.00	0.00
	4	0.00	0.00	0.15	0.77	0.08	0.00	0.00
	5	0.00	0.00	0.11	0.80	0.09	0.00	0.00
MATH 3	Overall	0.00	0.00	0.06	0.89	0.04	0.00	0.00
	1	0.00	0.00	0.06	0.90	0.04	0.00	0.00
	2	0.00	0.01	0.07	0.88	0.04	0.00	0.00
	3	0.00	0.00	0.07	0.88	0.04	0.00	0.00
	4	0.00	0.00	0.06	0.89	0.05	0.00	0.00
	5	0.00	0.00	0.05	0.89	0.06	0.01	0.00
MATH 4	Overall	0.00	0.00	0.09	0.83	0.08	0.00	0.00
	1	0.00	0.00	0.09	0.84	0.06	0.00	0.00
	2	0.00	0.00	0.11	0.75	0.14	0.00	0.00
	3	0.00	0.00	0.08	0.83	0.08	0.00	0.00
	4	0.00	0.01	0.08	0.78	0.13	0.00	0.00
	5	0.00	0.00	0.08	0.84	0.07	0.00	0.00
MATH 5	Overall	0.00	0.00	0.06	0.90	0.04	0.00	0.00
	1	0.00	0.00	0.07	0.87	0.05	0.00	0.00
	2	0.00	0.01	0.04	0.93	0.02	0.00	0.00
	3	0.00	0.00	0.05	0.92	0.03	0.00	0.00
	4	0.00	0.01	0.05	0.92	0.02	0.00	0.00
	5	0.00	0.00	0.06	0.91	0.03	0.00	0.00
MATH 6	Overall	0.00	0.00	0.09	0.81	0.10	0.00	0.00
	1	0.00	0.00	0.09	0.81	0.10	0.00	0.00
	2	0.00	0.01	0.15	0.75	0.09	0.00	0.00
	3	0.00	0.00	0.08	0.81	0.11	0.00	0.00
	4	0.00	0.00	0.07	0.83	0.10	0.00	0.00
	5	0.00	0.00	0.09	0.81	0.10	0.00	0.00

Table N-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.03	0.90	0.06	0.00	0.00
	1	0.00	0.00	0.04	0.89	0.07	0.00	0.00
	2	0.00	0.00	0.06	0.92	0.02	0.00	0.00
	3	0.00	0.00	0.03	0.92	0.05	0.00	0.00
	4	0.00	0.00	0.04	0.91	0.05	0.00	0.00
	5	0.00	0.00	0.03	0.91	0.06	0.00	0.00
MATH 2	Overall	0.00	0.00	0.06	0.89	0.04	0.00	0.00
	1	0.00	0.00	0.06	0.89	0.04	0.00	0.00
	2	0.00	0.00	0.09	0.88	0.03	0.00	0.00
	3	0.00	0.00	0.05	0.90	0.04	0.00	0.00
	4	0.00	0.00	0.04	0.90	0.05	0.00	0.00
	5	0.00	0.00	0.07	0.89	0.04	0.00	0.00
MATH 3	Overall	0.00	0.00	0.06	0.86	0.08	0.00	0.00
	1	0.00	0.00	0.05	0.85	0.09	0.00	0.00
	2	0.00	0.00	0.09	0.83	0.08	0.00	0.00
	3	0.00	0.00	0.05	0.87	0.08	0.00	0.00
	4	0.00	0.00	0.09	0.84	0.07	0.00	0.00
	5	0.00	0.00	0.08	0.87	0.05	0.00	0.00
MATH 4	Overall	0.00	0.00	0.03	0.91	0.06	0.00	0.00
	1	0.00	0.00	0.04	0.89	0.07	0.00	0.00
	2	0.00	0.00	0.04	0.95	0.01	0.00	0.00
	3	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	4	0.00	0.00	0.03	0.93	0.04	0.00	0.00
	5	0.00	0.00	0.02	0.95	0.03	0.00	0.00
MATH 5	Overall	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	1	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	2	0.00	0.00	0.02	0.96	0.02	0.00	0.00
	3	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	4	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	5	0.00	0.00	0.03	0.94	0.02	0.00	0.00
MATH 6	Overall	0.00	0.00	0.05	0.88	0.06	0.00	0.00
	1	0.00	0.00	0.06	0.88	0.05	0.00	0.00
	2	0.00	0.00	0.09	0.86	0.05	0.00	0.00
	3	0.00	0.00	0.04	0.86	0.09	0.00	0.00
	4	0.00	0.00	0.04	0.87	0.08	0.00	0.00
	5	0.00	0.00	0.04	0.91	0.05	0.00	0.00

Table N-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Percentages of score differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.03	0.92	0.04	0.00	0.00
	1	0.00	0.00	0.04	0.93	0.04	0.00	0.00
	2	0.00	0.00	0.04	0.95	0.02	0.00	0.00
	3	0.00	0.00	0.03	0.92	0.05	0.00	0.00
	4	0.00	0.00	0.04	0.91	0.05	0.00	0.00
	5	0.00	0.00	0.03	0.93	0.03	0.00	0.00
MATH 8	Overall	0.00	0.01	0.12	0.71	0.16	0.01	0.00
	1	0.00	0.01	0.12	0.69	0.17	0.01	0.00
	2	0.00	0.00	0.12	0.73	0.14	0.01	0.00
	3	0.00	0.00	0.12	0.71	0.16	0.01	0.00
	4	0.00	0.00	0.12	0.72	0.15	0.01	0.00
	5	0.00	0.00	0.11	0.75	0.14	0.00	0.00
MATH 9	Overall	0.00	0.00	0.06	0.89	0.04	0.00	0.00
	1	0.00	0.00	0.07	0.89	0.04	0.00	0.00
	2	0.00	0.00	0.07	0.88	0.05	0.00	0.00
	3	0.00	0.00	0.04	0.89	0.06	0.00	0.00
	4	0.00	0.00	0.06	0.90	0.03	0.00	0.00
	5	0.00	0.01	0.06	0.89	0.04	0.00	0.00
MATH10	Overall	0.00	0.00	0.01	0.97	0.02	0.00	0.00
	1	0.00	0.00	0.01	0.96	0.02	0.00	0.00
	2	0.00	0.00	0.01	0.97	0.02	0.00	0.00
	3	0.00	0.00	0.02	0.97	0.01	0.00	0.00
	4	0.00	0.00	0.02	0.97	0.01	0.00	0.00
	5	0.00	0.00	0.01	0.97	0.02	0.00	0.00
MATH11	Overall	0.00	0.00	0.04	0.91	0.04	0.00	0.00
	1	0.00	0.00	0.04	0.90	0.05	0.00	0.00
	2	0.00	0.00	0.04	0.93	0.02	0.01	0.00
	3	0.00	0.00	0.04	0.93	0.03	0.00	0.00
	4	0.00	0.00	0.02	0.94	0.03	0.00	0.00
	5	0.00	0.00	0.04	0.93	0.03	0.00	0.00
MATH12	Overall	0.00	0.00	0.06	0.89	0.05	0.00	0.00
	1	0.00	0.00	0.06	0.88	0.05	0.00	0.00
	2	0.00	0.01	0.07	0.87	0.06	0.00	0.00
	3	0.00	0.00	0.05	0.90	0.04	0.00	0.00
	4	0.00	0.00	0.07	0.90	0.03	0.00	0.00
	5	0.00	0.00	0.05	0.89	0.06	0.00	0.00

Table N-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH13	Overall	0.00	0.00	0.08	0.87	0.05	0.00	0.00
	1	0.00	0.00	0.08	0.87	0.05	0.00	0.00
	2	0.00	0.00	0.07	0.87	0.05	0.00	0.00
	3	0.00	0.00	0.08	0.88	0.04	0.00	0.00
	4	0.00	0.00	0.10	0.86	0.03	0.01	0.00
	5	0.00	0.00	0.07	0.88	0.05	0.00	0.00
MATH14	Overall	0.00	0.00	0.04	0.93	0.03	0.00	0.00
	1	0.00	0.00	0.04	0.91	0.04	0.00	0.00
	2	0.00	0.00	0.01	0.96	0.03	0.00	0.00
	3	0.00	0.00	0.04	0.94	0.02	0.00	0.00
	4	0.00	0.00	0.03	0.95	0.01	0.00	0.00
	5	0.00	0.00	0.02	0.95	0.03	0.00	0.00
MATH15	Overall	0.00	0.00	0.06	0.87	0.06	0.00	0.00
	1	0.00	0.00	0.05	0.87	0.07	0.00	0.00
	2	0.00	0.00	0.02	0.94	0.04	0.00	0.00
	3	0.00	0.01	0.07	0.86	0.06	0.01	0.00
	4	0.00	0.01	0.06	0.88	0.05	0.01	0.00
	5	0.00	0.01	0.06	0.87	0.06	0.00	0.00
MATH16	Overall	0.00	0.00	0.07	0.82	0.11	0.00	0.00
	1	0.00	0.00	0.07	0.85	0.08	0.00	0.00
	2	0.00	0.00	0.10	0.78	0.12	0.00	0.00
	3	0.00	0.00	0.06	0.78	0.15	0.00	0.00
	4	0.00	0.00	0.10	0.72	0.17	0.00	0.00
	5	0.00	0.00	0.06	0.80	0.14	0.00	0.00
MATH17	Overall	0.00	0.00	0.10	0.81	0.07	0.00	0.00
	1	0.00	0.00	0.11	0.81	0.07	0.00	0.00
	2	0.01	0.01	0.15	0.75	0.09	0.00	0.00
	3	0.00	0.00	0.10	0.81	0.07	0.01	0.00
	4	0.00	0.00	0.07	0.84	0.09	0.00	0.00
	5	0.00	0.01	0.10	0.83	0.07	0.00	0.00
MATH18	Overall	0.00	0.00	0.08	0.87	0.05	0.00	0.00
	1	0.00	0.00	0.09	0.85	0.06	0.00	0.00
	2	0.00	0.00	0.09	0.88	0.04	0.00	0.00
	3	0.00	0.00	0.10	0.87	0.03	0.00	0.00
	4	0.00	0.00	0.09	0.88	0.02	0.00	0.00
	5	0.00	0.00	0.05	0.91	0.03	0.00	0.00

Table N-3. NYS Public Schools Grade 5 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.05	0.89	0.03	0.02	0.00
	1	0.00	0.00	0.06	0.91	0.03	0.00	0.00
	2	0.00	0.00	0.05	0.91	0.04	0.00	0.00
	3	0.00	0.00	0.05	0.92	0.02	0.00	0.00
	4	0.00	0.00	0.02	0.96	0.02	0.00	0.00
	5	0.00	0.00	0.06	0.90	0.04	0.00	0.00
MATH 2	Overall	0.00	0.01	0.04	0.87	0.04	0.01	0.02
	1	0.00	0.01	0.03	0.91	0.03	0.00	0.00
	2	0.00	0.00	0.03	0.95	0.01	0.00	0.00
	3	0.00	0.01	0.05	0.90	0.04	0.00	0.00
	4	0.00	0.02	0.03	0.91	0.01	0.03	0.00
	5	0.00	0.01	0.04	0.90	0.05	0.00	0.00
MATH 3	Overall	0.00	0.01	0.07	0.84	0.05	0.01	0.01
	1	0.00	0.01	0.06	0.87	0.05	0.01	0.00
	2	0.00	0.01	0.06	0.90	0.03	0.00	0.00
	3	0.00	0.02	0.08	0.85	0.04	0.01	0.00
	4	0.00	0.02	0.10	0.85	0.02	0.00	0.00
	5	0.00	0.01	0.08	0.85	0.05	0.01	0.00
MATH 4	Overall	0.00	0.00	0.08	0.78	0.10	0.04	0.00
	1	0.00	0.00	0.08	0.78	0.11	0.03	0.00
	2	0.00	0.01	0.12	0.77	0.07	0.03	0.00
	3	0.00	0.00	0.08	0.83	0.08	0.01	0.00
	4	0.00	0.00	0.09	0.88	0.03	0.00	0.00
	5	0.00	0.00	0.08	0.81	0.09	0.02	0.00
MATH 5	Overall	0.00	0.00	0.02	0.91	0.05	0.01	0.00
	1	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	2	0.00	0.00	0.01	0.96	0.02	0.00	0.00
	3	0.00	0.00	0.01	0.95	0.03	0.00	0.00
	4	0.00	0.00	0.01	0.95	0.04	0.00	0.00
	5	0.00	0.00	0.02	0.95	0.04	0.00	0.00
MATH 6	Overall	0.00	0.00	0.10	0.83	0.06	0.01	0.00
	1	0.00	0.00	0.09	0.85	0.05	0.00	0.00
	2	0.00	0.00	0.12	0.87	0.01	0.00	0.00
	3	0.00	0.00	0.11	0.83	0.06	0.00	0.00
	4	0.00	0.01	0.10	0.80	0.09	0.01	0.00
	5	0.00	0.01	0.11	0.84	0.05	0.00	0.00

Table N-3. NYS Public Schools Grade 5 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.02	0.16	0.59	0.18	0.04	0.01
	1	0.00	0.02	0.15	0.59	0.20	0.04	0.00
	2	0.00	0.05	0.19	0.56	0.20	0.00	0.00
	3	0.00	0.02	0.16	0.64	0.15	0.02	0.00
	4	0.00	0.02	0.19	0.67	0.12	0.01	0.00
	5	0.00	0.02	0.17	0.61	0.17	0.02	0.00
MATH 8	Overall	0.00	0.01	0.11	0.76	0.07	0.01	0.02
	1	0.00	0.01	0.15	0.76	0.08	0.00	0.00
	2	0.00	0.02	0.13	0.81	0.02	0.00	0.00
	3	0.00	0.02	0.10	0.82	0.06	0.00	0.00
	4	0.00	0.01	0.08	0.83	0.08	0.00	0.00
	5	0.01	0.02	0.10	0.80	0.07	0.00	0.00

Table N-4. NYS Public Schools Grade 6 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.04	0.92	0.03	0.00	0.00
	1	0.00	0.00	0.04	0.92	0.03	0.00	0.00
	2	0.00	0.00	0.02	0.94	0.04	0.00	0.00
	3	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	4	0.00	0.00	0.06	0.91	0.03	0.00	0.00
	5	0.00	0.00	0.04	0.94	0.02	0.00	0.00
MATH 2	Overall	0.00	0.00	0.05	0.90	0.04	0.00	0.00
	1	0.00	0.00	0.05	0.90	0.05	0.00	0.00
	2	0.00	0.00	0.03	0.93	0.04	0.00	0.00
	3	0.00	0.00	0.06	0.90	0.04	0.00	0.00
	4	0.00	0.00	0.04	0.94	0.02	0.00	0.00
	5	0.00	0.00	0.05	0.90	0.05	0.00	0.00
MATH 3	Overall	0.00	0.01	0.10	0.79	0.09	0.01	0.00
	1	0.00	0.01	0.10	0.78	0.10	0.01	0.00
	2	0.00	0.02	0.14	0.78	0.05	0.00	0.00
	3	0.00	0.01	0.09	0.81	0.08	0.01	0.00
	4	0.00	0.01	0.10	0.83	0.06	0.00	0.00
	5	0.00	0.01	0.11	0.78	0.09	0.01	0.00
MATH 4	Overall	0.00	0.01	0.12	0.76	0.10	0.01	0.00
	1	0.00	0.00	0.10	0.75	0.13	0.01	0.00
	2	0.00	0.01	0.16	0.77	0.06	0.00	0.00
	3	0.00	0.01	0.16	0.76	0.07	0.00	0.00
	4	0.00	0.01	0.18	0.77	0.04	0.00	0.00
	5	0.00	0.01	0.12	0.79	0.08	0.00	0.00
MATH 5	Overall	0.00	0.00	0.06	0.85	0.08	0.00	0.00
	1	0.00	0.00	0.06	0.84	0.09	0.00	0.00
	2	0.00	0.00	0.05	0.89	0.06	0.00	0.00
	3	0.00	0.00	0.06	0.86	0.08	0.00	0.00
	4	0.00	0.00	0.08	0.85	0.06	0.00	0.00
	5	0.00	0.00	0.04	0.87	0.08	0.00	0.00
MATH 6	Overall	0.00	0.01	0.09	0.85	0.04	0.01	0.00
	1	0.00	0.01	0.09	0.85	0.04	0.01	0.00
	2	0.00	0.01	0.15	0.76	0.06	0.01	0.00
	3	0.00	0.01	0.10	0.84	0.04	0.01	0.00
	4	0.00	0.02	0.05	0.87	0.04	0.01	0.00
	5	0.00	0.01	0.10	0.83	0.04	0.01	0.00

Table N-4. NYS Public Schools Grade 6 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.09	0.78	0.12	0.01	0.00
	1	0.00	0.00	0.09	0.76	0.14	0.01	0.00
	2	0.00	0.00	0.08	0.82	0.10	0.00	0.00
	3	0.00	0.00	0.09	0.80	0.11	0.01	0.00
	4	0.00	0.00	0.09	0.75	0.14	0.01	0.00
	5	0.00	0.00	0.08	0.82	0.09	0.01	0.00
MATH 8	Overall	0.00	0.01	0.13	0.79	0.07	0.00	0.00
	1	0.00	0.01	0.12	0.79	0.07	0.00	0.00
	2	0.00	0.00	0.14	0.75	0.09	0.00	0.01
	3	0.00	0.01	0.13	0.81	0.06	0.00	0.00
	4	0.00	0.01	0.19	0.74	0.06	0.01	0.00
	5	0.00	0.01	0.14	0.79	0.06	0.00	0.00
MATH 9	Overall	0.00	0.01	0.10	0.77	0.10	0.01	0.00
	1	0.00	0.01	0.09	0.78	0.09	0.01	0.00
	2	0.00	0.01	0.09	0.81	0.07	0.01	0.00
	3	0.00	0.02	0.11	0.76	0.10	0.01	0.00
	4	0.00	0.01	0.16	0.72	0.11	0.01	0.00
	5	0.00	0.01	0.10	0.78	0.10	0.01	0.00
MATH10	Overall	0.00	0.00	0.08	0.86	0.06	0.00	0.00
	1	0.00	0.00	0.07	0.85	0.06	0.00	0.00
	2	0.00	0.00	0.14	0.81	0.03	0.00	0.00
	3	0.00	0.00	0.08	0.87	0.05	0.00	0.00
	4	0.00	0.00	0.05	0.88	0.06	0.00	0.00
	5	0.00	0.01	0.10	0.84	0.05	0.00	0.00

Table N-5. NYS Public Schools Grade 7 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.01	0.15	0.71	0.13	0.00	0.00
	1	0.00	0.00	0.14	0.71	0.14	0.00	0.00
	2	0.00	0.00	0.18	0.65	0.16	0.01	0.00
	3	0.00	0.01	0.10	0.74	0.15	0.00	0.00
	4	0.00	0.00	0.23	0.67	0.10	0.00	0.00
	5	0.00	0.01	0.15	0.71	0.12	0.00	0.00
MATH 2	Overall	0.00	0.00	0.12	0.83	0.04	0.00	0.00
	1	0.00	0.00	0.11	0.85	0.04	0.00	0.00
	2	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	3	0.00	0.00	0.10	0.85	0.05	0.00	0.00
	4	0.00	0.00	0.20	0.77	0.03	0.00	0.00
	5	0.00	0.00	0.14	0.81	0.05	0.00	0.00
MATH 3	Overall	0.00	0.01	0.13	0.81	0.05	0.00	0.00
	1	0.00	0.01	0.13	0.80	0.05	0.01	0.00
	2	0.00	0.01	0.18	0.78	0.03	0.00	0.00
	3	0.00	0.01	0.07	0.86	0.05	0.01	0.00
	4	0.00	0.01	0.12	0.79	0.08	0.00	0.00
	5	0.00	0.01	0.13	0.81	0.04	0.00	0.00
MATH 4	Overall	0.00	0.02	0.22	0.66	0.08	0.01	0.00
	1	0.00	0.02	0.22	0.67	0.09	0.01	0.00
	2	0.00	0.01	0.19	0.69	0.08	0.02	0.00
	3	0.01	0.03	0.26	0.63	0.07	0.00	0.00
	4	0.01	0.04	0.18	0.69	0.08	0.01	0.00
	5	0.01	0.02	0.24	0.66	0.06	0.01	0.00
MATH 5	Overall	0.00	0.00	0.13	0.83	0.04	0.00	0.00
	1	0.00	0.00	0.13	0.82	0.04	0.00	0.00
	2	0.00	0.00	0.14	0.84	0.01	0.00	0.00
	3	0.00	0.00	0.11	0.87	0.02	0.00	0.00
	4	0.00	0.00	0.15	0.81	0.03	0.00	0.00
	5	0.00	0.00	0.12	0.83	0.04	0.00	0.00
MATH 6	Overall	0.00	0.00	0.09	0.86	0.05	0.00	0.00
	1	0.00	0.00	0.09	0.86	0.05	0.00	0.00
	2	0.00	0.00	0.11	0.89	0.01	0.00	0.00
	3	0.00	0.00	0.08	0.86	0.06	0.00	0.00
	4	0.00	0.00	0.09	0.87	0.04	0.00	0.00
	5	0.00	0.00	0.09	0.86	0.05	0.00	0.00

Table N-5. NYS Public Schools Grade 7 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.10	0.85	0.04	0.00	0.00
	1	0.00	0.00	0.10	0.86	0.04	0.00	0.00
	2	0.00	0.00	0.22	0.76	0.02	0.00	0.00
	3	0.00	0.00	0.07	0.89	0.03	0.00	0.00
	4	0.00	0.00	0.09	0.86	0.04	0.00	0.00
	5	0.00	0.00	0.11	0.84	0.04	0.00	0.00
MATH 8	Overall	0.00	0.02	0.13	0.70	0.14	0.01	0.00
	1	0.00	0.02	0.11	0.71	0.15	0.01	0.00
	2	0.00	0.02	0.21	0.70	0.06	0.00	0.00
	3	0.00	0.01	0.09	0.75	0.14	0.02	0.00
	4	0.00	0.02	0.15	0.73	0.09	0.01	0.00
	5	0.00	0.03	0.15	0.65	0.15	0.02	0.00

Table N-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.16	0.78	0.06	0.00	0.00
	1	0.00	0.00	0.15	0.77	0.07	0.00	0.00
	2	0.00	0.00	0.06	0.90	0.03	0.00	0.00
	3	0.00	0.00	0.09	0.84	0.07	0.00	0.00
	4	0.00	0.00	0.07	0.85	0.08	0.00	0.00
	5	0.00	0.00	0.21	0.75	0.04	0.00	0.00
MATH 2	Overall	0.00	0.04	0.25	0.61	0.10	0.01	0.00
	1	0.00	0.04	0.26	0.61	0.09	0.01	0.00
	2	0.00	0.03	0.22	0.69	0.06	0.00	0.00
	3	0.00	0.02	0.24	0.64	0.09	0.01	0.00
	4	0.00	0.02	0.15	0.65	0.16	0.02	0.00
	5	0.00	0.04	0.26	0.58	0.11	0.01	0.00
MATH 3	Overall	0.00	0.03	0.24	0.64	0.08	0.00	0.00
	1	0.00	0.02	0.23	0.63	0.11	0.00	0.00
	2	0.00	0.03	0.21	0.71	0.05	0.00	0.00
	3	0.00	0.05	0.26	0.62	0.06	0.00	0.00
	4	0.00	0.01	0.25	0.65	0.09	0.00	0.00
	5	0.00	0.03	0.26	0.65	0.06	0.00	0.00
MATH 4	Overall	0.00	0.01	0.10	0.77	0.11	0.01	0.00
	1	0.00	0.01	0.09	0.79	0.10	0.01	0.00
	2	0.00	0.01	0.08	0.79	0.10	0.02	0.00
	3	0.00	0.01	0.09	0.78	0.12	0.00	0.00
	4	0.00	0.00	0.13	0.73	0.12	0.02	0.00
	5	0.00	0.01	0.12	0.74	0.12	0.01	0.00
MATH 5	Overall	0.00	0.00	0.06	0.88	0.05	0.00	0.00
	1	0.00	0.00	0.05	0.88	0.07	0.00	0.00
	2	0.00	0.00	0.04	0.94	0.01	0.00	0.00
	3	0.00	0.00	0.08	0.86	0.05	0.00	0.00
	4	0.00	0.00	0.07	0.89	0.04	0.00	0.00
	5	0.00	0.00	0.07	0.89	0.04	0.00	0.00
MATH 6	Overall	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	1	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	2	0.00	0.00	0.01	0.96	0.03	0.00	0.00
	3	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	4	0.00	0.00	0.02	0.97	0.02	0.00	0.00
	5	0.00	0.00	0.03	0.94	0.02	0.00	0.00

Table N-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.10	0.83	0.07	0.00	0.00
	1	0.00	0.00	0.08	0.83	0.08	0.00	0.00
	2	0.00	0.00	0.07	0.87	0.06	0.00	0.00
	3	0.00	0.00	0.09	0.84	0.07	0.00	0.00
	4	0.00	0.00	0.07	0.83	0.09	0.00	0.00
	5	0.00	0.00	0.12	0.83	0.05	0.00	0.00
MATH 8	Overall	0.00	0.01	0.13	0.69	0.15	0.02	0.00
	1	0.00	0.01	0.11	0.70	0.16	0.02	0.00
	2	0.00	0.02	0.12	0.70	0.16	0.01	0.00
	3	0.00	0.02	0.19	0.66	0.12	0.01	0.00
	4	0.00	0.01	0.18	0.65	0.14	0.01	0.00
	5	0.00	0.01	0.14	0.69	0.15	0.02	0.00
MATH 9	Overall	0.00	0.01	0.13	0.81	0.05	0.01	0.00
	1	0.00	0.01	0.11	0.82	0.05	0.01	0.00
	2	0.00	0.01	0.10	0.78	0.10	0.01	0.00
	3	0.00	0.01	0.15	0.81	0.03	0.01	0.00
	4	0.00	0.02	0.17	0.76	0.05	0.00	0.00
	5	0.00	0.01	0.14	0.80	0.04	0.00	0.00
MATH10	Overall	0.00	0.00	0.09	0.84	0.07	0.00	0.00
	1	0.00	0.00	0.10	0.80	0.09	0.00	0.00
	2	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	3	0.00	0.00	0.12	0.85	0.04	0.00	0.00
	4	0.00	0.00	0.04	0.88	0.07	0.00	0.00
	5	0.00	0.00	0.08	0.86	0.06	0.00	0.00
MATH11	Overall	0.00	0.00	0.07	0.83	0.09	0.01	0.00
	1	0.00	0.00	0.07	0.82	0.10	0.01	0.00
	2	0.00	0.00	0.07	0.87	0.06	0.00	0.00
	3	0.00	0.00	0.07	0.82	0.10	0.00	0.00
	4	0.00	0.00	0.11	0.77	0.11	0.01	0.00
	5	0.00	0.00	0.07	0.85	0.07	0.00	0.00
MATH12	Overall	0.00	0.01	0.12	0.73	0.13	0.01	0.00
	1	0.00	0.01	0.11	0.73	0.14	0.01	0.00
	2	0.00	0.01	0.12	0.77	0.09	0.00	0.00
	3	0.00	0.01	0.12	0.74	0.13	0.01	0.00
	4	0.00	0.02	0.15	0.74	0.09	0.00	0.00
	5	0.00	0.02	0.13	0.73	0.12	0.01	0.00

Table N-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH13	Overall	0.00	0.00	0.07	0.82	0.11	0.00	0.00
	1	0.00	0.00	0.07	0.81	0.12	0.00	0.00
	2	0.00	0.00	0.10	0.77	0.13	0.00	0.00
	3	0.00	0.00	0.06	0.86	0.07	0.00	0.00
	4	0.00	0.00	0.04	0.83	0.12	0.00	0.00
	5	0.00	0.00	0.08	0.81	0.10	0.00	0.00
MATH14	Overall	0.00	0.00	0.08	0.85	0.07	0.01	0.00
	1	0.00	0.00	0.08	0.83	0.08	0.01	0.00
	2	0.00	0.00	0.08	0.87	0.03	0.01	0.00
	3	0.00	0.00	0.06	0.88	0.05	0.00	0.00
	4	0.00	0.00	0.07	0.81	0.11	0.01	0.00
	5	0.00	0.00	0.07	0.87	0.05	0.00	0.00
MATH15	Overall	0.00	0.01	0.15	0.63	0.19	0.01	0.00
	1	0.00	0.02	0.14	0.65	0.18	0.02	0.00
	2	0.00	0.03	0.13	0.58	0.22	0.04	0.00
	3	0.00	0.01	0.18	0.54	0.27	0.01	0.00
	4	0.00	0.02	0.19	0.61	0.17	0.01	0.00
	5	0.00	0.01	0.15	0.64	0.19	0.01	0.00
MATH16	Overall	0.00	0.03	0.28	0.58	0.10	0.01	0.00
	1	0.00	0.03	0.23	0.59	0.13	0.01	0.00
	2	0.00	0.02	0.24	0.62	0.11	0.01	0.00
	3	0.00	0.03	0.28	0.59	0.09	0.01	0.00
	4	0.00	0.02	0.22	0.64	0.11	0.01	0.00
	5	0.00	0.04	0.33	0.56	0.07	0.01	0.00
MATH17	Overall	0.00	0.01	0.11	0.76	0.10	0.02	0.00
	1	0.00	0.01	0.09	0.77	0.11	0.03	0.00
	2	0.00	0.02	0.15	0.79	0.04	0.00	0.00
	3	0.00	0.01	0.14	0.73	0.10	0.02	0.00
	4	0.00	0.02	0.11	0.79	0.07	0.01	0.00
	5	0.00	0.01	0.12	0.76	0.10	0.02	0.00
MATH18	Overall	0.00	0.00	0.10	0.81	0.08	0.01	0.00
	1	0.00	0.00	0.07	0.82	0.10	0.01	0.00
	2	0.00	0.00	0.15	0.80	0.05	0.00	0.00
	3	0.00	0.01	0.14	0.78	0.07	0.00	0.00
	4	0.00	0.00	0.07	0.82	0.10	0.01	0.00
	5	0.00	0.00	0.11	0.81	0.08	0.00	0.00

Appendix O

Item Level Differences for Mathematics All Schools in State Without New York City Schools

Table O-1. NYS Public Schools Grade 3 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.02	0.96	0.01	0.00	0.00
	1	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	2	0.00	0.01	0.01	0.98	0.00	0.00	0.00
	3	0.00	0.00	0.02	0.96	0.01	0.00	0.00
	4	0.00	0.00	0.05	0.94	0.01	0.00	0.00
	5	0.00	0.00	0.01	0.97	0.01	0.00	0.00
MATH 2	Overall	0.00	0.00	0.10	0.80	0.10	0.00	0.00
	1	0.00	0.00	0.07	0.82	0.11	0.00	0.00
	2	0.00	0.00	0.18	0.75	0.07	0.00	0.00
	3	0.00	0.00	0.09	0.80	0.10	0.00	0.00
	4	0.00	0.00	0.15	0.77	0.08	0.00	0.00
	5	0.00	0.00	0.11	0.80	0.09	0.00	0.00
MATH 3	Overall	0.00	0.00	0.06	0.89	0.04	0.00	0.00
	1	0.00	0.00	0.06	0.91	0.03	0.00	0.00
	2	0.00	0.01	0.07	0.88	0.04	0.00	0.00
	3	0.00	0.00	0.07	0.88	0.04	0.00	0.00
	4	0.00	0.00	0.06	0.89	0.05	0.00	0.00
	5	0.00	0.00	0.05	0.89	0.06	0.01	0.00
MATH 4	Overall	0.00	0.00	0.08	0.83	0.09	0.00	0.00
	1	0.00	0.00	0.07	0.85	0.08	0.00	0.00
	2	0.00	0.00	0.11	0.75	0.14	0.00	0.00
	3	0.00	0.00	0.08	0.83	0.08	0.00	0.00
	4	0.00	0.01	0.08	0.78	0.13	0.00	0.00
	5	0.00	0.00	0.08	0.84	0.07	0.00	0.00
MATH 5	Overall	0.00	0.00	0.05	0.91	0.03	0.00	0.00
	1	0.00	0.00	0.06	0.89	0.05	0.00	0.00
	2	0.00	0.01	0.04	0.93	0.02	0.00	0.00
	3	0.00	0.00	0.05	0.92	0.03	0.00	0.00
	4	0.00	0.01	0.05	0.92	0.02	0.00	0.00
	5	0.00	0.00	0.06	0.91	0.03	0.00	0.00
MATH 6	Overall	0.00	0.00	0.08	0.81	0.10	0.00	0.00
	1	0.00	0.00	0.08	0.81	0.10	0.00	0.00
	2	0.00	0.01	0.15	0.75	0.09	0.00	0.00
	3	0.00	0.00	0.08	0.81	0.11	0.00	0.00
	4	0.00	0.00	0.07	0.83	0.10	0.00	0.00
	5	0.00	0.00	0.09	0.81	0.10	0.00	0.00

Table O-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.03	0.91	0.06	0.00	0.00
	1	0.00	0.00	0.03	0.90	0.06	0.00	0.00
	2	0.00	0.00	0.06	0.92	0.02	0.00	0.00
	3	0.00	0.00	0.03	0.92	0.05	0.00	0.00
	4	0.00	0.00	0.04	0.91	0.05	0.00	0.00
	5	0.00	0.00	0.03	0.91	0.06	0.00	0.00
MATH 2	Overall	0.00	0.00	0.06	0.90	0.04	0.00	0.00
	1	0.00	0.00	0.07	0.89	0.03	0.00	0.00
	2	0.00	0.00	0.09	0.88	0.03	0.00	0.00
	3	0.00	0.00	0.05	0.90	0.04	0.00	0.00
	4	0.00	0.00	0.04	0.90	0.05	0.00	0.00
	5	0.00	0.00	0.07	0.89	0.04	0.00	0.00
MATH 3	Overall	0.00	0.00	0.06	0.86	0.07	0.00	0.00
	1	0.00	0.00	0.05	0.86	0.09	0.00	0.00
	2	0.00	0.00	0.09	0.83	0.08	0.00	0.00
	3	0.00	0.00	0.05	0.87	0.08	0.00	0.00
	4	0.00	0.00	0.09	0.84	0.07	0.00	0.00
	5	0.00	0.00	0.08	0.87	0.05	0.00	0.00
MATH 4	Overall	0.00	0.00	0.03	0.92	0.05	0.00	0.00
	1	0.00	0.00	0.04	0.89	0.07	0.00	0.00
	2	0.00	0.00	0.04	0.95	0.01	0.00	0.00
	3	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	4	0.00	0.00	0.03	0.93	0.04	0.00	0.00
	5	0.00	0.00	0.02	0.95	0.03	0.00	0.00
MATH 5	Overall	0.00	0.00	0.02	0.94	0.03	0.00	0.00
	1	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	2	0.00	0.00	0.02	0.96	0.02	0.00	0.00
	3	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	4	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	5	0.00	0.00	0.03	0.94	0.02	0.00	0.00
MATH 6	Overall	0.00	0.00	0.05	0.88	0.07	0.00	0.00
	1	0.00	0.00	0.05	0.88	0.06	0.00	0.00
	2	0.00	0.00	0.09	0.86	0.05	0.00	0.00
	3	0.00	0.00	0.04	0.86	0.09	0.00	0.00
	4	0.00	0.00	0.04	0.87	0.08	0.00	0.00
	5	0.00	0.00	0.04	0.91	0.05	0.00	0.00

Table O-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	1	0.00	0.00	0.05	0.91	0.04	0.00	0.00
	2	0.00	0.00	0.04	0.95	0.02	0.00	0.00
	3	0.00	0.00	0.03	0.92	0.05	0.00	0.00
	4	0.00	0.00	0.04	0.91	0.05	0.00	0.00
	5	0.00	0.00	0.03	0.93	0.03	0.00	0.00
MATH 8	Overall	0.00	0.01	0.12	0.72	0.15	0.01	0.00
	1	0.00	0.01	0.13	0.70	0.15	0.01	0.00
	2	0.00	0.00	0.12	0.73	0.14	0.01	0.00
	3	0.00	0.00	0.12	0.71	0.16	0.01	0.00
	4	0.00	0.00	0.12	0.72	0.15	0.01	0.00
	5	0.00	0.00	0.11	0.75	0.14	0.00	0.00
MATH 9	Overall	0.00	0.00	0.06	0.89	0.05	0.00	0.00
	1	0.00	0.00	0.07	0.89	0.04	0.00	0.00
	2	0.00	0.00	0.07	0.88	0.05	0.00	0.00
	3	0.00	0.00	0.04	0.89	0.06	0.00	0.00
	4	0.00	0.00	0.06	0.90	0.03	0.00	0.00
	5	0.00	0.01	0.06	0.89	0.04	0.00	0.00
MATH10	Overall	0.00	0.00	0.01	0.97	0.01	0.00	0.00
	1	0.00	0.00	0.01	0.97	0.01	0.00	0.00
	2	0.00	0.00	0.01	0.97	0.02	0.00	0.00
	3	0.00	0.00	0.02	0.97	0.01	0.00	0.00
	4	0.00	0.00	0.02	0.97	0.01	0.00	0.00
	5	0.00	0.00	0.01	0.97	0.02	0.00	0.00
MATH11	Overall	0.00	0.00	0.04	0.92	0.03	0.00	0.00
	1	0.00	0.00	0.05	0.91	0.04	0.00	0.00
	2	0.00	0.00	0.04	0.93	0.02	0.01	0.00
	3	0.00	0.00	0.04	0.93	0.03	0.00	0.00
	4	0.00	0.00	0.02	0.94	0.03	0.00	0.00
	5	0.00	0.00	0.04	0.93	0.03	0.00	0.00
MATH12	Overall	0.00	0.00	0.06	0.89	0.05	0.00	0.00
	1	0.00	0.00	0.07	0.88	0.05	0.00	0.00
	2	0.00	0.01	0.07	0.87	0.06	0.00	0.00
	3	0.00	0.00	0.05	0.90	0.04	0.00	0.00
	4	0.00	0.00	0.07	0.90	0.03	0.00	0.00
	5	0.00	0.00	0.05	0.89	0.06	0.00	0.00

Table O-2. NYS Public Schools Grade 4 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH13	Overall	0.00	0.00	0.08	0.87	0.05	0.00	0.00
	1	0.00	0.00	0.09	0.86	0.05	0.00	0.00
	2	0.00	0.00	0.07	0.87	0.05	0.00	0.00
	3	0.00	0.00	0.08	0.88	0.04	0.00	0.00
	4	0.00	0.00	0.10	0.86	0.03	0.01	0.00
	5	0.00	0.00	0.07	0.88	0.05	0.00	0.00
MATH14	Overall	0.00	0.00	0.03	0.94	0.03	0.00	0.00
	1	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	2	0.00	0.00	0.01	0.96	0.03	0.00	0.00
	3	0.00	0.00	0.04	0.94	0.02	0.00	0.00
	4	0.00	0.00	0.03	0.95	0.01	0.00	0.00
	5	0.00	0.00	0.02	0.95	0.03	0.00	0.00
MATH15	Overall	0.00	0.00	0.06	0.87	0.06	0.00	0.00
	1	0.00	0.00	0.06	0.88	0.06	0.00	0.00
	2	0.00	0.00	0.02	0.94	0.04	0.00	0.00
	3	0.00	0.01	0.07	0.86	0.06	0.01	0.00
	4	0.00	0.01	0.06	0.88	0.05	0.01	0.00
	5	0.00	0.01	0.06	0.87	0.06	0.00	0.00
MATH16	Overall	0.00	0.00	0.06	0.79	0.14	0.00	0.00
	1	0.00	0.00	0.05	0.82	0.13	0.00	0.00
	2	0.00	0.00	0.10	0.78	0.12	0.00	0.00
	3	0.00	0.00	0.06	0.78	0.15	0.00	0.00
	4	0.00	0.00	0.10	0.72	0.17	0.00	0.00
	5	0.00	0.00	0.06	0.80	0.14	0.00	0.00
MATH17	Overall	0.00	0.01	0.11	0.81	0.08	0.00	0.00
	1	0.00	0.01	0.12	0.78	0.09	0.00	0.00
	2	0.01	0.01	0.15	0.75	0.09	0.00	0.00
	3	0.00	0.00	0.10	0.81	0.07	0.01	0.00
	4	0.00	0.00	0.07	0.84	0.09	0.00	0.00
	5	0.00	0.01	0.10	0.83	0.07	0.00	0.00
MATH18	Overall	0.00	0.00	0.08	0.88	0.04	0.00	0.00
	1	0.00	0.00	0.10	0.84	0.05	0.00	0.00
	2	0.00	0.00	0.09	0.88	0.04	0.00	0.00
	3	0.00	0.00	0.10	0.87	0.03	0.00	0.00
	4	0.00	0.00	0.09	0.88	0.02	0.00	0.00
	5	0.00	0.00	0.05	0.91	0.03	0.00	0.00

Table O-3. NYS Public Schools Grade 5 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.05	0.88	0.04	0.03	0.00
	1	0.00	0.00	0.05	0.90	0.04	0.00	0.00
	2	0.00	0.00	0.05	0.91	0.04	0.00	0.00
	3	0.00	0.00	0.05	0.92	0.02	0.00	0.00
	4	0.00	0.00	0.02	0.96	0.02	0.00	0.00
	5	0.00	0.00	0.06	0.90	0.04	0.00	0.00
MATH 2	Overall	0.00	0.01	0.04	0.86	0.04	0.01	0.03
	1	0.00	0.02	0.05	0.90	0.03	0.00	0.00
	2	0.00	0.00	0.03	0.95	0.01	0.00	0.00
	3	0.00	0.01	0.05	0.90	0.04	0.00	0.00
	4	0.00	0.02	0.03	0.91	0.01	0.03	0.00
	5	0.00	0.01	0.04	0.90	0.05	0.00	0.00
MATH 3	Overall	0.00	0.01	0.08	0.83	0.05	0.01	0.02
	1	0.00	0.01	0.08	0.84	0.05	0.01	0.00
	2	0.00	0.01	0.06	0.90	0.03	0.00	0.00
	3	0.00	0.02	0.08	0.85	0.04	0.01	0.00
	4	0.00	0.02	0.10	0.85	0.02	0.00	0.00
	5	0.00	0.01	0.08	0.85	0.05	0.01	0.00
MATH 4	Overall	0.00	0.00	0.07	0.80	0.09	0.04	0.00
	1	0.00	0.00	0.06	0.83	0.09	0.02	0.00
	2	0.00	0.01	0.12	0.77	0.07	0.03	0.00
	3	0.00	0.00	0.08	0.83	0.08	0.01	0.00
	4	0.00	0.00	0.09	0.88	0.03	0.00	0.00
	5	0.00	0.00	0.08	0.81	0.09	0.02	0.00
MATH 5	Overall	0.00	0.00	0.02	0.91	0.06	0.02	0.00
	1	0.00	0.00	0.02	0.94	0.03	0.00	0.00
	2	0.00	0.00	0.01	0.96	0.02	0.00	0.00
	3	0.00	0.00	0.01	0.95	0.03	0.00	0.00
	4	0.00	0.00	0.01	0.95	0.04	0.00	0.00
	5	0.00	0.00	0.02	0.95	0.04	0.00	0.00
MATH 6	Overall	0.00	0.00	0.10	0.82	0.06	0.01	0.00
	1	0.00	0.00	0.07	0.88	0.05	0.00	0.00
	2	0.00	0.00	0.12	0.87	0.01	0.00	0.00
	3	0.00	0.00	0.11	0.83	0.06	0.00	0.00
	4	0.00	0.01	0.10	0.80	0.09	0.01	0.00
	5	0.00	0.01	0.11	0.84	0.05	0.00	0.00

Table O-3. NYS Public Schools Grade 5 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.02	0.16	0.60	0.16	0.03	0.02
	1	0.00	0.02	0.15	0.66	0.16	0.01	0.00
	2	0.00	0.05	0.19	0.56	0.20	0.00	0.00
	3	0.00	0.02	0.16	0.64	0.15	0.02	0.00
	4	0.00	0.02	0.19	0.67	0.12	0.01	0.00
	5	0.00	0.02	0.17	0.61	0.17	0.02	0.00
MATH 8	Overall	0.00	0.02	0.10	0.78	0.07	0.01	0.03
	1	0.00	0.01	0.14	0.79	0.05	0.00	0.00
	2	0.00	0.02	0.13	0.81	0.02	0.00	0.00
	3	0.00	0.02	0.10	0.82	0.06	0.00	0.00
	4	0.00	0.01	0.08	0.83	0.08	0.00	0.00
	5	0.01	0.02	0.10	0.80	0.07	0.00	0.00

Table O-4. NYS Public Schools Grade 6 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.04	0.92	0.03	0.00	0.00
	1	0.00	0.00	0.03	0.91	0.05	0.00	0.00
	2	0.00	0.00	0.02	0.94	0.04	0.00	0.00
	3	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	4	0.00	0.00	0.06	0.91	0.03	0.00	0.00
	5	0.00	0.00	0.04	0.94	0.02	0.00	0.00
MATH 2	Overall	0.00	0.00	0.05	0.90	0.04	0.00	0.00
	1	0.00	0.00	0.06	0.88	0.05	0.00	0.00
	2	0.00	0.00	0.03	0.93	0.04	0.00	0.00
	3	0.00	0.00	0.06	0.90	0.04	0.00	0.00
	4	0.00	0.00	0.04	0.94	0.02	0.00	0.00
	5	0.00	0.00	0.05	0.90	0.05	0.00	0.00
MATH 3	Overall	0.00	0.01	0.10	0.80	0.08	0.01	0.00
	1	0.00	0.01	0.11	0.80	0.08	0.01	0.00
	2	0.00	0.02	0.14	0.78	0.05	0.00	0.00
	3	0.00	0.01	0.09	0.81	0.08	0.01	0.00
	4	0.00	0.01	0.10	0.83	0.06	0.00	0.00
	5	0.00	0.01	0.11	0.78	0.09	0.01	0.00
MATH 4	Overall	0.00	0.01	0.14	0.77	0.08	0.00	0.00
	1	0.00	0.00	0.14	0.73	0.12	0.01	0.00
	2	0.00	0.01	0.16	0.77	0.06	0.00	0.00
	3	0.00	0.01	0.16	0.76	0.07	0.00	0.00
	4	0.00	0.01	0.18	0.77	0.04	0.00	0.00
	5	0.00	0.01	0.12	0.79	0.08	0.00	0.00
MATH 5	Overall	0.00	0.00	0.06	0.86	0.07	0.00	0.00
	1	0.00	0.00	0.05	0.86	0.08	0.00	0.00
	2	0.00	0.00	0.05	0.89	0.06	0.00	0.00
	3	0.00	0.00	0.06	0.86	0.08	0.00	0.00
	4	0.00	0.00	0.08	0.85	0.06	0.00	0.00
	5	0.00	0.00	0.04	0.87	0.08	0.00	0.00
MATH 6	Overall	0.00	0.01	0.09	0.84	0.04	0.01	0.00
	1	0.00	0.01	0.09	0.85	0.03	0.01	0.00
	2	0.00	0.01	0.15	0.76	0.06	0.01	0.00
	3	0.00	0.01	0.10	0.84	0.04	0.01	0.00
	4	0.00	0.02	0.05	0.87	0.04	0.01	0.00
	5	0.00	0.01	0.10	0.83	0.04	0.01	0.00

Table O-4. NYS Public Schools Grade 6 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.08	0.79	0.11	0.01	0.00
	1	0.00	0.01	0.07	0.77	0.14	0.02	0.00
	2	0.00	0.00	0.08	0.82	0.10	0.00	0.00
	3	0.00	0.00	0.09	0.80	0.11	0.01	0.00
	4	0.00	0.00	0.09	0.75	0.14	0.01	0.00
	5	0.00	0.00	0.08	0.82	0.09	0.01	0.00
MATH 8	Overall	0.00	0.01	0.15	0.77	0.07	0.00	0.00
	1	0.00	0.01	0.17	0.72	0.09	0.00	0.00
	2	0.00	0.00	0.14	0.75	0.09	0.00	0.01
	3	0.00	0.01	0.13	0.81	0.06	0.00	0.00
	4	0.00	0.01	0.19	0.74	0.06	0.01	0.00
	5	0.00	0.01	0.14	0.79	0.06	0.00	0.00
MATH 9	Overall	0.00	0.01	0.11	0.76	0.10	0.01	0.00
	1	0.00	0.01	0.10	0.76	0.11	0.01	0.00
	2	0.00	0.01	0.09	0.81	0.07	0.01	0.00
	3	0.00	0.02	0.11	0.76	0.10	0.01	0.00
	4	0.00	0.01	0.16	0.72	0.11	0.01	0.00
	5	0.00	0.01	0.10	0.78	0.10	0.01	0.00
MATH10	Overall	0.00	0.00	0.08	0.86	0.06	0.00	0.00
	1	0.00	0.00	0.07	0.85	0.08	0.00	0.00
	2	0.00	0.00	0.14	0.81	0.03	0.00	0.00
	3	0.00	0.00	0.08	0.87	0.05	0.00	0.00
	4	0.00	0.00	0.05	0.88	0.06	0.00	0.00
	5	0.00	0.01	0.10	0.84	0.05	0.00	0.00

Table O-5. NYS Public Schools Grade 7 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.01	0.17	0.70	0.12	0.00	0.00
	1	0.00	0.01	0.18	0.69	0.11	0.00	0.00
	2	0.00	0.00	0.18	0.65	0.16	0.01	0.00
	3	0.00	0.01	0.10	0.74	0.15	0.00	0.00
	4	0.00	0.00	0.23	0.67	0.10	0.00	0.00
	5	0.00	0.01	0.15	0.71	0.12	0.00	0.00
MATH 2	Overall	0.00	0.00	0.13	0.83	0.04	0.00	0.00
	1	0.00	0.00	0.09	0.88	0.03	0.00	0.00
	2	0.00	0.00	0.04	0.92	0.04	0.00	0.00
	3	0.00	0.00	0.10	0.85	0.05	0.00	0.00
	4	0.00	0.00	0.20	0.77	0.03	0.00	0.00
	5	0.00	0.00	0.14	0.81	0.05	0.00	0.00
MATH 3	Overall	0.00	0.01	0.13	0.81	0.05	0.00	0.00
	1	0.00	0.01	0.14	0.80	0.05	0.01	0.00
	2	0.00	0.01	0.18	0.78	0.03	0.00	0.00
	3	0.00	0.01	0.07	0.86	0.05	0.01	0.00
	4	0.00	0.01	0.12	0.79	0.08	0.00	0.00
	5	0.00	0.01	0.13	0.81	0.04	0.00	0.00
MATH 4	Overall	0.01	0.03	0.22	0.67	0.07	0.01	0.00
	1	0.00	0.02	0.21	0.69	0.08	0.00	0.00
	2	0.00	0.01	0.19	0.69	0.08	0.02	0.00
	3	0.01	0.03	0.26	0.63	0.07	0.00	0.00
	4	0.01	0.04	0.18	0.69	0.08	0.01	0.00
	5	0.01	0.02	0.24	0.66	0.06	0.01	0.00
MATH 5	Overall	0.00	0.00	0.13	0.83	0.03	0.00	0.00
	1	0.00	0.00	0.13	0.83	0.04	0.00	0.00
	2	0.00	0.00	0.14	0.84	0.01	0.00	0.00
	3	0.00	0.00	0.11	0.87	0.02	0.00	0.00
	4	0.00	0.00	0.15	0.81	0.03	0.00	0.00
	5	0.00	0.00	0.12	0.83	0.04	0.00	0.00
MATH 6	Overall	0.00	0.00	0.09	0.86	0.05	0.00	0.00
	1	0.00	0.00	0.08	0.87	0.05	0.00	0.00
	2	0.00	0.00	0.11	0.89	0.01	0.00	0.00
	3	0.00	0.00	0.08	0.86	0.06	0.00	0.00
	4	0.00	0.00	0.09	0.87	0.04	0.00	0.00
	5	0.00	0.00	0.09	0.86	0.05	0.00	0.00

Table O-5. NYS Public Schools Grade 7 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.10	0.85	0.04	0.00	0.00
	1	0.00	0.00	0.09	0.87	0.03	0.00	0.00
	2	0.00	0.00	0.22	0.76	0.02	0.00	0.00
	3	0.00	0.00	0.07	0.89	0.03	0.00	0.00
	4	0.00	0.00	0.09	0.86	0.04	0.00	0.00
	5	0.00	0.00	0.11	0.84	0.04	0.00	0.00
MATH 8	Overall	0.00	0.02	0.13	0.69	0.14	0.01	0.00
	1	0.00	0.02	0.10	0.70	0.17	0.01	0.00
	2	0.00	0.02	0.21	0.70	0.06	0.00	0.00
	3	0.00	0.01	0.09	0.75	0.14	0.02	0.00
	4	0.00	0.02	0.15	0.73	0.09	0.01	0.00
	5	0.00	0.03	0.15	0.65	0.15	0.02	0.00

Table O-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	Overall	0.00	0.00	0.16	0.79	0.05	0.00	0.00
	1	0.00	0.00	0.07	0.88	0.06	0.00	0.00
	2	0.00	0.00	0.06	0.90	0.03	0.00	0.00
	3	0.00	0.00	0.09	0.84	0.07	0.00	0.00
	4	0.00	0.00	0.07	0.85	0.08	0.00	0.00
	5	0.00	0.00	0.21	0.75	0.04	0.00	0.00
MATH 2	Overall	0.00	0.04	0.25	0.60	0.10	0.01	0.00
	1	0.00	0.03	0.30	0.60	0.06	0.00	0.00
	2	0.00	0.03	0.22	0.69	0.06	0.00	0.00
	3	0.00	0.02	0.24	0.64	0.09	0.01	0.00
	4	0.00	0.02	0.15	0.65	0.16	0.02	0.00
	5	0.00	0.04	0.26	0.58	0.11	0.01	0.00
MATH 3	Overall	0.00	0.03	0.24	0.66	0.07	0.00	0.00
	1	0.00	0.02	0.11	0.70	0.17	0.00	0.00
	2	0.00	0.03	0.21	0.71	0.05	0.00	0.00
	3	0.00	0.05	0.26	0.62	0.06	0.00	0.00
	4	0.00	0.01	0.25	0.65	0.09	0.00	0.00
	5	0.00	0.03	0.26	0.65	0.06	0.00	0.00
MATH 4	Overall	0.00	0.01	0.11	0.75	0.12	0.01	0.00
	1	0.00	0.01	0.06	0.82	0.10	0.01	0.00
	2	0.00	0.01	0.08	0.79	0.10	0.02	0.00
	3	0.00	0.01	0.09	0.78	0.12	0.00	0.00
	4	0.00	0.00	0.13	0.73	0.12	0.02	0.00
	5	0.00	0.01	0.12	0.74	0.12	0.01	0.00
MATH 5	Overall	0.00	0.00	0.06	0.89	0.04	0.00	0.00
	1	0.00	0.00	0.03	0.92	0.05	0.00	0.00
	2	0.00	0.00	0.04	0.94	0.01	0.00	0.00
	3	0.00	0.00	0.08	0.86	0.05	0.00	0.00
	4	0.00	0.00	0.07	0.89	0.04	0.00	0.00
	5	0.00	0.00	0.07	0.89	0.04	0.00	0.00
MATH 6	Overall	0.00	0.00	0.03	0.95	0.02	0.00	0.00
	1	0.00	0.00	0.03	0.94	0.02	0.00	0.00
	2	0.00	0.00	0.01	0.96	0.03	0.00	0.00
	3	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	4	0.00	0.00	0.02	0.97	0.02	0.00	0.00
	5	0.00	0.00	0.03	0.94	0.02	0.00	0.00

Table O-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 7	Overall	0.00	0.00	0.10	0.83	0.06	0.00	0.00
	1	0.00	0.00	0.08	0.83	0.09	0.00	0.00
	2	0.00	0.00	0.07	0.87	0.06	0.00	0.00
	3	0.00	0.00	0.09	0.84	0.07	0.00	0.00
	4	0.00	0.00	0.07	0.83	0.09	0.00	0.00
	5	0.00	0.00	0.12	0.83	0.05	0.00	0.00
MATH 8	Overall	0.00	0.01	0.15	0.68	0.15	0.02	0.00
	1	0.00	0.01	0.11	0.66	0.20	0.02	0.00
	2	0.00	0.02	0.12	0.70	0.16	0.01	0.00
	3	0.00	0.02	0.19	0.66	0.12	0.01	0.00
	4	0.00	0.01	0.18	0.65	0.14	0.01	0.00
	5	0.00	0.01	0.14	0.69	0.15	0.02	0.00
MATH 9	Overall	0.00	0.01	0.14	0.80	0.04	0.00	0.00
	1	0.00	0.01	0.12	0.83	0.03	0.00	0.00
	2	0.00	0.01	0.10	0.78	0.10	0.01	0.00
	3	0.00	0.01	0.15	0.81	0.03	0.01	0.00
	4	0.00	0.02	0.17	0.76	0.05	0.00	0.00
	5	0.00	0.01	0.14	0.80	0.04	0.00	0.00
MATH10	Overall	0.00	0.00	0.08	0.86	0.06	0.00	0.00
	1	0.00	0.00	0.12	0.80	0.07	0.00	0.00
	2	0.00	0.00	0.02	0.95	0.03	0.00	0.00
	3	0.00	0.00	0.12	0.85	0.04	0.00	0.00
	4	0.00	0.00	0.04	0.88	0.07	0.00	0.00
	5	0.00	0.00	0.08	0.86	0.06	0.00	0.00
MATH11	Overall	0.00	0.00	0.08	0.84	0.08	0.00	0.00
	1	0.00	0.00	0.07	0.87	0.06	0.00	0.00
	2	0.00	0.00	0.07	0.87	0.06	0.00	0.00
	3	0.00	0.00	0.07	0.82	0.10	0.00	0.00
	4	0.00	0.00	0.11	0.77	0.11	0.01	0.00
	5	0.00	0.00	0.07	0.85	0.07	0.00	0.00
MATH12	Overall	0.00	0.02	0.13	0.73	0.12	0.01	0.00
	1	0.00	0.01	0.13	0.74	0.12	0.01	0.00
	2	0.00	0.01	0.12	0.77	0.09	0.00	0.00
	3	0.00	0.01	0.12	0.74	0.13	0.01	0.00
	4	0.00	0.02	0.15	0.74	0.09	0.00	0.00
	5	0.00	0.02	0.13	0.73	0.12	0.01	0.00

Table O-6. NYS Public Schools Grade 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH13	Overall	0.00	0.00	0.08	0.82	0.10	0.00	0.00
	1	0.00	0.00	0.09	0.77	0.14	0.00	0.00
	2	0.00	0.00	0.10	0.77	0.13	0.00	0.00
	3	0.00	0.00	0.06	0.86	0.07	0.00	0.00
	4	0.00	0.00	0.04	0.83	0.12	0.00	0.00
	5	0.00	0.00	0.08	0.81	0.10	0.00	0.00
MATH14	Overall	0.00	0.00	0.07	0.87	0.06	0.00	0.00
	1	0.00	0.00	0.09	0.87	0.04	0.00	0.00
	2	0.00	0.00	0.08	0.87	0.03	0.01	0.00
	3	0.00	0.00	0.06	0.88	0.05	0.00	0.00
	4	0.00	0.00	0.07	0.81	0.11	0.01	0.00
	5	0.00	0.00	0.07	0.87	0.05	0.00	0.00
MATH15	Overall	0.00	0.01	0.16	0.62	0.20	0.01	0.00
	1	0.00	0.02	0.15	0.66	0.15	0.01	0.00
	2	0.00	0.03	0.13	0.58	0.22	0.04	0.00
	3	0.00	0.01	0.18	0.54	0.27	0.01	0.00
	4	0.00	0.02	0.19	0.61	0.17	0.01	0.00
	5	0.00	0.01	0.15	0.64	0.19	0.01	0.00
MATH16	Overall	0.00	0.04	0.30	0.58	0.08	0.01	0.00
	1	0.01	0.05	0.22	0.59	0.12	0.01	0.00
	2	0.00	0.02	0.24	0.62	0.11	0.01	0.00
	3	0.00	0.03	0.28	0.59	0.09	0.01	0.00
	4	0.00	0.02	0.22	0.64	0.11	0.01	0.00
	5	0.00	0.04	0.33	0.56	0.07	0.01	0.00
MATH17	Overall	0.00	0.01	0.12	0.76	0.09	0.02	0.00
	1	0.00	0.01	0.06	0.79	0.11	0.03	0.00
	2	0.00	0.02	0.15	0.79	0.04	0.00	0.00
	3	0.00	0.01	0.14	0.73	0.10	0.02	0.00
	4	0.00	0.02	0.11	0.79	0.07	0.01	0.00
	5	0.00	0.01	0.12	0.76	0.10	0.02	0.00
MATH18	Overall	0.00	0.00	0.11	0.81	0.08	0.00	0.00
	1	0.00	0.00	0.09	0.79	0.11	0.01	0.00
	2	0.00	0.00	0.15	0.80	0.05	0.00	0.00
	3	0.00	0.01	0.14	0.78	0.07	0.00	0.00
	4	0.00	0.00	0.07	0.82	0.10	0.01	0.00
	5	0.00	0.00	0.11	0.81	0.08	0.00	0.00

Appendix P

Item Level Differences for Mathematics Including New York City Schools Only

Table P-1. NYS Public Schools Grades 3 – 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring]

Grade 3								
Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	NYC	0.00	0.00	0.02	0.96	0.01	0.00	0.00
MATH 2	NYC	0.00	0.00	0.11	0.81	0.08	0.00	0.00
MATH 3	NYC	0.00	0.00	0.06	0.90	0.04	0.00	0.00
MATH 4	NYC	0.00	0.00	0.09	0.84	0.06	0.00	0.00
MATH 5	NYC	0.00	0.00	0.07	0.87	0.05	0.00	0.00
MATH 6	NYC	0.00	0.00	0.09	0.81	0.09	0.00	0.00
Grade 4								
Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	NYC	0.00	0.00	0.04	0.88	0.08	0.00	0.00
MATH 2	NYC	0.00	0.00	0.06	0.89	0.04	0.00	0.00
MATH 3	NYC	0.00	0.00	0.05	0.85	0.09	0.00	0.00
MATH 4	NYC	0.00	0.00	0.04	0.89	0.08	0.00	0.00
MATH 5	NYC	0.00	0.00	0.03	0.94	0.03	0.00	0.00
MATH 6	NYC	0.00	0.00	0.06	0.88	0.05	0.00	0.00
MATH 7	NYC	0.00	0.00	0.03	0.93	0.03	0.00	0.00
MATH 8	NYC	0.00	0.01	0.11	0.69	0.18	0.01	0.00
MATH 9	NYC	0.00	0.00	0.07	0.89	0.03	0.00	0.00
MATH10	NYC	0.00	0.00	0.02	0.96	0.02	0.00	0.00
MATH11	NYC	0.00	0.00	0.04	0.90	0.05	0.00	0.00
MATH12	NYC	0.00	0.00	0.06	0.88	0.06	0.00	0.00
MATH13	NYC	0.00	0.00	0.07	0.87	0.05	0.00	0.00
MATH14	NYC	0.00	0.00	0.05	0.91	0.04	0.00	0.00
MATH15	NYC	0.00	0.00	0.05	0.87	0.07	0.00	0.00
MATH16	NYC	0.00	0.00	0.08	0.86	0.05	0.00	0.00
MATH17	NYC	0.00	0.00	0.10	0.83	0.07	0.00	0.00
MATH18	NYC	0.00	0.00	0.08	0.86	0.06	0.00	0.00
Grade 5								
Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	NYC	0.00	0.00	0.06	0.91	0.03	0.00	0.00
MATH 2	NYC	0.00	0.01	0.03	0.92	0.03	0.00	0.00
MATH 3	NYC	0.00	0.01	0.05	0.87	0.05	0.01	0.00
MATH 4	NYC	0.00	0.00	0.09	0.77	0.12	0.03	0.00
MATH 5	NYC	0.00	0.00	0.03	0.94	0.03	0.00	0.00
MATH 6	NYC	0.00	0.00	0.09	0.85	0.05	0.00	0.00
MATH 7	NYC	0.00	0.02	0.15	0.57	0.21	0.04	0.00
MATH 8	NYC	0.00	0.01	0.15	0.75	0.08	0.00	0.00

Table P-1. NYS Public Schools Grades 3 – 8 Mathematics Operational Test 2006: Percentages of Score Differences [Audit Scoring minus Local Scoring] (continued)

Grade 6								
Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	NYC	0.00	0.00	0.04	0.92	0.03	0.00	0.00
MATH 2	NYC	0.00	0.00	0.04	0.90	0.05	0.00	0.00
MATH 3	NYC	0.00	0.01	0.10	0.78	0.11	0.01	0.00
MATH 4	NYC	0.00	0.00	0.09	0.76	0.13	0.01	0.00
MATH 5	NYC	0.00	0.01	0.06	0.84	0.09	0.00	0.00
MATH 6	NYC	0.00	0.01	0.08	0.85	0.04	0.01	0.00
MATH 7	NYC	0.00	0.00	0.10	0.75	0.13	0.01	0.00
MATH 8	NYC	0.00	0.00	0.11	0.81	0.07	0.00	0.00
MATH 9	NYC	0.00	0.01	0.09	0.79	0.09	0.01	0.00
MATH10	NYC	0.00	0.00	0.08	0.85	0.06	0.00	0.00
Grade 7								
Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	NYC	0.00	0.00	0.13	0.72	0.14	0.00	0.00
MATH 2	NYC	0.00	0.00	0.11	0.84	0.04	0.00	0.00
MATH 3	NYC	0.00	0.01	0.13	0.80	0.06	0.00	0.00
MATH 4	NYC	0.00	0.02	0.22	0.66	0.10	0.01	0.00
MATH 5	NYC	0.00	0.00	0.14	0.82	0.04	0.00	0.00
MATH 6	NYC	0.00	0.00	0.09	0.85	0.06	0.00	0.00
MATH 7	NYC	0.00	0.00	0.10	0.85	0.04	0.00	0.00
MATH 8	NYC	0.00	0.02	0.12	0.71	0.14	0.01	0.00
Grade 8								
Item #	Scoring Model	-3	-2	-1	0	1	2	3
MATH 1	NYC	0.00	0.00	0.16	0.76	0.07	0.00	0.00
MATH 2	NYC	0.00	0.04	0.25	0.61	0.09	0.01	0.00
MATH 3	NYC	0.00	0.02	0.25	0.62	0.10	0.00	0.00
MATH 4	NYC	0.00	0.01	0.09	0.79	0.10	0.01	0.00
MATH 5	NYC	0.00	0.00	0.06	0.87	0.07	0.00	0.00
MATH 6	NYC	0.00	0.00	0.03	0.94	0.03	0.00	0.00
MATH 7	NYC	0.00	0.00	0.08	0.83	0.08	0.00	0.00
MATH 8	NYC	0.00	0.01	0.11	0.71	0.15	0.02	0.00
MATH 9	NYC	0.00	0.01	0.10	0.82	0.06	0.01	0.00
MATH10	NYC	0.00	0.00	0.10	0.81	0.09	0.00	0.00
MATH11	NYC	0.00	0.00	0.07	0.82	0.11	0.01	0.00
MATH12	NYC	0.00	0.01	0.11	0.73	0.14	0.01	0.00
MATH13	NYC	0.00	0.00	0.07	0.82	0.11	0.00	0.00
MATH14	NYC	0.00	0.00	0.08	0.82	0.08	0.01	0.00
MATH15	NYC	0.00	0.02	0.13	0.65	0.19	0.02	0.00
MATH16	NYC	0.00	0.03	0.23	0.59	0.14	0.01	0.00
MATH17	NYC	0.00	0.01	0.09	0.76	0.11	0.03	0.00
MATH18	NYC	0.00	0.00	0.07	0.82	0.09	0.01	0.00