

APPENDIX A: THE 2008 MSA-READING STRATIFIED RANDOM SAMPLING

Reporting deadlines made it impossible to use almost 100% of the 2008 population as the 2008 calibration and equating data set, MSDE and NPC recommended that Pearson use equating samples instead of the 2008 population. Pearson chose Local Education Agency (LEA) as one of the most important variables for stratification. Based on the population percentage of each LEA, Pearson randomly selected about 3,000 students for each grade from first-waved documents (i.e., 50% of the statewide population) which were randomly distributed and completely scored. It should be noted that this method has been applied since the 2006 assessment.

To verify that the sample was representative of the statewide examinee population in terms of gender and ethnicity, the distributions of gender and ethnicity of the 2008 samples were compared with the 2008 population. The results are shown in this appendix. The percentages of male and female students were within 2.3 percentage points of the target values across all grades. The percentages of students from the five major ethnic groups were all within 1.5 percentage points of the target values across all grades. We conclude that the 2008 equating samples were representative of the 2008 statewide examinee population in terms of LEA, gender, and ethnicity.

Table A.1 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 3 LEA

LEA	Grade 3			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.08	33	1.10	-0.02
2	8.92	268	8.93	-0.01
3	12.58	377	12.57	0.01
4	2.01	60	2.00	0.01
5	0.58	17	0.57	0.01
6	3.19	96	3.20	-0.01
7	1.98	59	1.97	0.01
8	2.89	87	2.90	-0.01
9	0.51	15	0.50	0.01
10	4.80	144	4.80	0.00
11	0.53	16	0.53	0.00
12	4.73	142	4.73	0.00
13	5.72	172	5.73	-0.01
14	0.26	8	0.27	-0.01
15	16.29	489	16.30	-0.01
16	14.44	433	14.43	0.01
17	0.90	27	0.90	0.00
18	2.00	60	2.00	0.00
19	0.35	10	0.33	0.02
20	0.48	15	0.50	-0.02
21	2.68	80	2.67	0.01
22	1.92	58	1.93	-0.01
23	0.77	23	0.77	0.00
24	0.21	6	0.20	0.01
30	10.17	305	10.17	0.00
Total	100.00	3000	100.00	0.000

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.2 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 3 Ethnicity

Race	Grade 3			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.42	17	0.57	-0.15
2	5.81	163	5.43	0.38
3	37.92	1112	37.07	0.85
4	46.50	1384	46.13	0.37
5	9.20	321	10.70	-1.50
Miss	0.15	3	0.10	0.05
Total	100.00	3000	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.3 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 3 Gender

Gender	Grade 3			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.39	1569	52.30	-0.91
M	48.49	1428	47.60	0.89
Miss	0.11	3	0.10	0.01
Total	100.00	3000	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.4 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 4 LEA

LEA	Grade 4			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.11	33	1.10	0.01
2	9.03	271	9.04	-0.01
3	12.31	369	12.31	0.00
4	2.05	61	2.03	0.02
5	0.60	18	0.60	0.00
6	3.38	101	3.37	0.01
7	2.02	61	2.03	-0.01
8	3.04	91	3.04	0.00
9	0.46	14	0.47	-0.01
10	4.84	145	4.84	0.00
11	0.53	16	0.53	0.00
12	4.79	144	4.80	-0.01
13	6.02	181	6.04	-0.02
14	0.24	7	0.23	0.01
15	16.12	483	16.11	0.01
16	14.68	440	14.68	0.00
17	0.88	26	0.87	0.01
18	1.92	58	1.93	-0.01
19	0.28	8	0.27	0.01
20	0.48	14	0.47	0.01
21	2.65	80	2.67	-0.02
22	1.84	55	1.83	0.01
23	0.74	22	0.73	0.01
24	0.26	8	0.27	-0.01
30	9.73	292	9.74	-0.01
Total	100.00	2998	100.00	0.00

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.5 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 4 Ethnicity

Race	Grade 4			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.39	14	0.47	-0.08
2	5.75	173	5.77	-0.02
3	37.72	1135	37.86	-0.14
4	47.05	1383	46.13	0.92
5	8.94	291	9.71	-0.76
Miss	0.15	2	0.07	0.08
Total	100.00	2998	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.6 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 4 Gender

Gender	Grade 4			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	50.91	1536	51.23	-0.33
M	48.98	1460	48.70	0.29
Miss	0.11	2	0.07	0.04
Total	100.00	2998	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.7 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 5 LEA

LEA	Grade 5			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.12	34	1.13	-0.01
2	8.82	265	8.83	-0.01
3	12.24	367	12.23	0.01
4	2.03	61	2.03	0.00
5	0.71	21	0.70	0.01
6	3.27	98	3.27	0.00
7	1.94	58	1.93	0.01
8	3.26	98	3.27	-0.01
9	0.58	18	0.60	-0.02
10	4.86	146	4.87	-0.01
11	0.50	15	0.50	0.00
12	4.83	145	4.83	0.00
13	6.12	184	6.13	-0.01
14	0.27	8	0.27	0.00
15	16.00	480	16.00	0.00
16	14.90	447	14.90	0.00
17	0.91	27	0.90	0.01
18	2.05	62	2.07	-0.02
19	0.30	9	0.30	0.00
20	0.48	14	0.47	0.01
21	2.68	80	2.67	0.01
22	1.87	56	1.87	0.00
23	0.75	23	0.77	-0.02
24	0.29	9	0.30	-0.01
30	9.17	275	9.17	0.00
Total	100.00	3000	100.01	-0.01

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.8 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 5 Ethnicity

Race	Grade 5			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.37	6	0.20	0.17
2	5.79	173	5.77	0.02
3	37.54	1144	38.13	-0.59
4	47.11	1401	46.70	0.41
5	9.04	269	8.97	0.07
Miss	0.14	7	0.23	-0.09
Total	100.00	3000	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.9 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 5 Gender

Gender	Grade 5			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.36	1543	51.43	-0.07
M	48.53	1452	48.40	0.13
Miss	0.11	5	0.17	-0.06
Total	100.00	3000	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.10 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 6 LEA

LEA	Grade 6			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.05	32	1.07	-0.02
2	8.75	263	8.76	-0.01
3	12.08	362	12.06	0.02
4	2.15	65	2.17	-0.02
5	0.59	18	0.60	-0.01
6	3.47	104	3.46	0.01
7	1.96	59	1.97	-0.01
8	3.22	97	3.23	-0.01
9	0.52	16	0.53	-0.01
10	4.89	147	4.90	-0.01
11	0.53	16	0.53	0.00
12	4.80	144	4.80	0.00
13	6.14	184	6.13	0.01
14	0.23	7	0.23	0.00
15	16.51	495	16.49	0.02
16	15.13	454	15.12	0.01
17	1.01	30	1.00	0.01
18	1.96	59	1.97	-0.01
19	0.36	11	0.37	-0.01
20	0.53	16	0.53	0.00
21	2.63	79	2.63	0.00
22	1.51	45	1.50	0.01
23	0.74	22	0.73	0.01
24	0.39	12	0.40	-0.01
30	8.84	265	8.83	0.01
Total	100.00	3002	100.01	-0.01

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.11 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 6 Ethnicity

Race	Grade 6			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.31	12	0.40	-0.09
2	5.57	146	4.86	0.70
3	37.43	1137	37.87	-0.45
4	47.68	1419	47.27	0.41
5	8.85	281	9.36	-0.51
Miss	0.17	7	0.23	-0.06
Total	100.00	3002	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.12 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 6 Gender

Gender	Grade 6			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	50.89	1466	48.83	2.06
M	48.99	1531	51.00	-2.01
Miss	0.12	5	0.17	-0.05
Total	100.00	3002	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.13 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 7 LEA

LEA	Grade 7			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.07	32	1.07	0.00
2	8.80	264	8.80	0.00
3	12.31	369	12.30	0.01
4	2.19	66	2.20	-0.01
5	0.64	19	0.63	0.01
6	3.39	102	3.40	-0.01
7	1.97	59	1.97	0.00
8	3.27	98	3.27	0.00
9	0.51	15	0.50	0.01
10	5.01	150	5.00	0.01
11	0.58	17	0.57	0.01
12	4.80	144	4.80	0.00
13	6.51	195	6.50	0.01
14	0.25	8	0.27	-0.02
15	16.20	486	16.19	0.01
16	14.76	443	14.76	0.00
17	0.92	28	0.93	-0.01
18	1.90	57	1.90	0.00
19	0.36	11	0.37	-0.01
20	0.50	15	0.50	0.00
21	2.45	73	2.43	0.02
22	1.49	45	1.50	-0.01
23	0.73	22	0.73	0.00
24	0.52	16	0.53	-0.01
30	8.90	267	8.90	0.00
Total	100.00	3001	100.02	-0.02

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.14 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 7 Ethnicity

Race	Grade 7			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.41	10	0.33	0.08
2	5.41	159	5.30	0.11
3	38.05	1155	38.49	-0.43
4	47.65	1418	47.25	0.40
5	8.26	251	8.36	-0.11
Miss	0.22	8	0.27	-0.05
Total	100.00	3001	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.15 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 7 Gender

Gender	Grade 7			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.22	1535	51.15	0.07
M	48.63	1460	48.65	-0.02
Miss	0.14	6	0.20	-0.06
Total	100.00	3001	100.00	0.00

Note: F. Female; M. Male; Miss: Missing

Table A.16 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 8 LEA

LEA	Grade 8			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	1.01	30	1.00	0.01
2	8.55	257	8.56	-0.01
3	12.18	366	12.20	-0.02
4	2.08	63	2.10	-0.02
5	0.63	19	0.63	0.00
6	3.53	106	3.53	0.00
7	1.96	59	1.97	-0.01
8	3.38	101	3.37	0.01
9	0.57	17	0.57	0.00
10	4.71	141	4.70	0.01
11	0.57	17	0.57	0.00
12	4.72	142	4.73	-0.01
13	6.06	182	6.06	0.00
14	0.26	8	0.27	-0.01
15	15.93	478	15.93	0.00
16	15.49	465	15.49	0.00
17	0.98	29	0.97	0.01
18	2.04	61	2.03	0.01
19	0.33	10	0.33	0.00
20	0.50	15	0.50	0.00
21	2.53	76	2.53	0.00
22	1.54	46	1.53	0.01
23	0.83	25	0.83	0.00
24	0.73	22	0.73	0.00
30	8.87	266	8.86	0.01
Total	100.00	3001	99.99	0.01

Note: 1. Allegany; 2. Anne Arundel; 3. Baltimore; 4. Calvert; 5. Caroline; 6. Carroll; 7. Cecil; 8. Charles; 9. Dorchester; 10. Frederick; 11. Garrett; 12. Harford; 13. Howard; 14. Kent; 15. Montgomery; 16. Prince George's; 17. Queen Anne's; 18. St. Mary's; 19. Somerset; 20. Talbot; 21. Washington; 22. Wicomico; 23. Worcester; 24. LEA 24; 30. Baltimore City

Table A.17 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 8 Ethnicity

Race	Grade 8			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
1	0.39	14	0.47	-0.07
2	5.26	166	5.53	-0.27
3	39.04	1207	40.22	-1.18
4	47.23	1379	45.95	1.28
5	7.88	229	7.63	0.25
Miss	0.19	6	0.20	-0.01
Total	100.00	3001	100.00	0.00

Note: 1. American Indian; 2. Asian American; 3. African American; 4. White; 5. Hispanic; Miss: Missing

Table A.18 The 2008 MSA-Reading Population and Stratified Random Sampling (S.R.S.): Grade 8 Gender

Gender	Grade 8			
	2008 Pop. %	2008 S. R. S.	% of 2008 S. R. S.	% of Differ.
F	51.41	1581	52.68	-1.27
M	48.45	1416	47.18	1.26
Miss	0.14	4	0.13	0.01
Total	100.00	3001	100.00	0.00

Note: F. Female; M. Male; Miss: Missing