

#### **4. THE 2010 MSA-READING STATISTICAL SUMMARY**

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This chapter summarizes statistical results of the 2010 MSA-Reading. It includes descriptive statistics of the 2010 reading test based on raw scores and scale scores, accuracy and consistency of the 2010 reading test, rater agreement rates, correlation coefficients among reporting standards, and total and subtotal RS/SS conversion tables.

**Table 4.1 The 2010 MSA-Reading Classical Descriptive Statistics: Grade 3 through 8**

| Grade | Form | Total No.<br>of Items | Total<br>Score Point | N      | Mean  | SD   | Reliability | SEM  |
|-------|------|-----------------------|----------------------|--------|-------|------|-------------|------|
| 3     | A    | 37                    | 45                   | 26,273 | 29.57 | 6.63 | 0.85        | 2.53 |
|       | B    | 37                    | 45                   | 26,671 | 30.06 | 7.11 | 0.88        | 2.50 |
| 4     | A    | 37                    | 45                   | 29,706 | 29.67 | 6.95 | 0.88        | 2.44 |
|       | B    | 37                    | 45                   | 29,549 | 29.32 | 6.58 | 0.86        | 2.45 |
| 5     | A    | 37                    | 45                   | 29,203 | 29.38 | 6.25 | 0.84        | 2.53 |
|       | B    | 37                    | 45                   | 28,993 | 29.83 | 6.46 | 0.85        | 2.52 |
| 6     | A    | 37                    | 45                   | 29,968 | 29.72 | 6.38 | 0.84        | 2.54 |
|       | B    | 37                    | 45                   | 29,222 | 29.05 | 6.01 | 0.82        | 2.57 |
| 7     | A    | 37                    | 45                   | 29,782 | 30.30 | 6.98 | 0.87        | 2.54 |
|       | B    | 37                    | 45                   | 29,202 | 31.02 | 6.95 | 0.87        | 2.53 |
| 8     | A    | 37                    | 45                   | 30,197 | 30.46 | 6.74 | 0.86        | 2.51 |
|       | B    | 37                    | 45                   | 29,668 | 30.94 | 6.75 | 0.86        | 2.50 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.2 The 2010 MSA-Reading Scale Score Descriptive Statistics: Grade 3 through 8**

| Grade | Form    | N      | M     | SD   | P10 | Q1  | Mdn | Q3  | P90 | IQR | SE at Cut-Points |      |
|-------|---------|--------|-------|------|-----|-----|-----|-----|-----|-----|------------------|------|
|       |         |        |       |      |     |     |     |     |     |     | Prof.            | Adv. |
| 3     | A       | 29,289 | 422.7 | 35.4 | 378 | 398 | 422 | 443 | 465 | 45  | 11               | 15   |
|       | B       | 29,097 | 426.5 | 38.1 | 377 | 401 | 427 | 449 | 474 | 48  | 11               | 15   |
|       | Overall | 58,386 | 424.6 | 36.8 | 378 | 400 | 426 | 449 | 474 | 49  | N/A              | N/A  |
| 4     | A       | 29,706 | 416.6 | 41.0 | 367 | 388 | 417 | 441 | 470 | 53  | 12               | 15   |
|       | B       | 29,549 | 415.4 | 38.0 | 368 | 390 | 413 | 437 | 462 | 47  | 12               | 14   |
|       | Overall | 59,255 | 416.0 | 39.6 | 367 | 390 | 413 | 441 | 470 | 51  | N/A              | N/A  |
| 5     | A       | 29,203 | 428.3 | 34.7 | 386 | 404 | 427 | 450 | 472 | 46  | 12               | 13   |
|       | B       | 28,993 | 429.5 | 36.2 | 385 | 402 | 430 | 454 | 479 | 52  | 12               | 12   |
|       | Overall | 58,196 | 428.9 | 35.5 | 385 | 404 | 427 | 454 | 472 | 50  | N/A              | N/A  |
| 6     | A       | 29,968 | 415.0 | 32.2 | 375 | 395 | 412 | 438 | 452 | 43  | 11               | 12   |
|       | B       | 29,222 | 415.6 | 29.8 | 380 | 395 | 416 | 437 | 450 | 42  | 11               | 12   |
|       | Overall | 59,190 | 415.3 | 31.0 | 376 | 395 | 416 | 437 | 452 | 42  | N/A              | N/A  |
| 7     | A       | 29,782 | 420.4 | 38.5 | 372 | 395 | 416 | 446 | 464 | 51  | 11               | 13   |
|       | B       | 29,202 | 423.1 | 39.1 | 375 | 398 | 420 | 444 | 472 | 46  | 11               | 13   |
|       | Overall | 58,984 | 421.7 | 38.8 | 375 | 395 | 420 | 446 | 472 | 51  | N/A              | N/A  |
| 8     | A       | 30,197 | 419.5 | 34.8 | 377 | 395 | 421 | 443 | 460 | 48  | 11               | 12   |
|       | B       | 29,668 | 421.6 | 35.4 | 377 | 399 | 420 | 443 | 469 | 44  | 11               | 12   |
|       | Overall | 59,865 | 420.5 | 35.1 | 377 | 395 | 420 | 443 | 469 | 48  | N/A              | N/A  |

*Note.* Analysis was conducted with a statewide population.

**Table 4.3 The 2010 MSA-Reading Strand Correlations: Grade 3 Form A**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 26,273 | 12.25 | 2.71 | 1.00 |      |      |
| 2. Literary Reading    | 26,273 | 8.88  | 2.44 | 0.64 | 1.00 |      |
| 3. Information Reading | 26,273 | 8.44  | 2.41 | 0.67 | 0.64 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.4 The 2010 MSA-Reading Strand Correlations: Grade 3 Form B**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 26,671 | 12.32 | 2.68 | 1.00 |      |      |
| 2. Literary Reading    | 26,671 | 9.37  | 2.54 | 0.67 | 1.00 |      |
| 3. Information Reading | 26,671 | 8.38  | 2.75 | 0.71 | 0.70 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.5 The 2010 MSA-Reading Strand Correlations: Grade 4 Form A**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,706 | 11.32 | 2.58 | 1.00 |      |      |
| 2. Literary Reading    | 29,706 | 9.55  | 2.66 | 0.68 | 1.00 |      |
| 3. Information Reading | 29,706 | 8.80  | 2.58 | 0.67 | 0.71 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.6 The 2010 MSA-Reading Strand Correlations: Grade 4 Form B**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,549 | 11.38 | 2.55 | 1.00 |      |      |
| 2. Literary Reading    | 29,549 | 8.59  | 2.54 | 0.66 | 1.00 |      |
| 3. Information Reading | 29,549 | 9.35  | 2.41 | 0.64 | 0.66 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.7 The 2010 MSA-Reading Strand Correlations: Grade 5 Form A**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,203 | 12.22 | 2.10 | 1.00 |      |      |
| 2. Literary Reading    | 29,203 | 8.71  | 2.71 | 0.61 | 1.00 |      |
| 3. Information Reading | 29,203 | 8.45  | 2.44 | 0.58 | 0.64 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.8 The 2010 MSA-Reading Strand Correlations: Grade 5 Form B**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 28,993 | 12.16 | 2.13 | 1.00 |      |      |
| 2. Literary Reading    | 28,993 | 8.80  | 2.52 | 0.60 | 1.00 |      |
| 3. Information Reading | 28,993 | 8.87  | 2.78 | 0.63 | 0.66 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.9 The 2010 MSA-Reading Strand Correlations: Grade 6 Form A**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,968 | 11.53 | 2.33 | 1.00 |      |      |
| 2. Literary Reading    | 29,968 | 8.39  | 2.42 | 0.60 | 1.00 |      |
| 3. Information Reading | 29,968 | 9.80  | 2.63 | 0.63 | 0.63 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.10 The 2010 MSA-Reading Strand Correlations: Grade 6 Form B**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,222 | 11.64 | 2.27 | 1.00 |      |      |
| 2. Literary Reading    | 29,222 | 8.48  | 2.36 | 0.57 | 1.00 |      |
| 3. Information Reading | 29,222 | 8.92  | 2.45 | 0.57 | 0.60 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.11 The 2010 MSA-Reading Strand Correlations: Grade 7 Form A**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,782 | 11.94 | 2.45 | 1.00 |      |      |
| 2. Literary Reading    | 29,782 | 9.30  | 2.85 | 0.67 | 1.00 |      |
| 3. Information Reading | 29,782 | 9.06  | 2.61 | 0.65 | 0.68 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.12 The 2010 MSA-Reading Strand Correlations: Grade 7 Form B**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,202 | 12.03 | 2.44 | 1.00 |      |      |
| 2. Literary Reading    | 29,202 | 10.10 | 2.56 | 0.66 | 1.00 |      |
| 3. Information Reading | 29,202 | 8.89  | 2.89 | 0.66 | 0.66 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.13 The 2010 MSA-Reading Strand Correlations: Grade 8 Form A**

| Cluster                | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 30,197 | 12.42 | 2.74 | 1.00 |      |      |
| 2. Literary Reading    | 30,197 | 9.35  | 2.59 | 0.66 | 1.00 |      |
| 3. Information Reading | 30,197 | 8.69  | 2.33 | 0.65 | 0.67 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.14 The 2010 MSA-Reading Strand Correlations: Grade 8 Form B**

| Strand                 | N      | Mean  | SD   | 1    | 2    | 3    |
|------------------------|--------|-------|------|------|------|------|
| 1. General Reading     | 29,668 | 12.48 | 2.69 | 1.00 |      |      |
| 2. Literary Reading    | 29,668 | 9.84  | 2.51 | 0.66 | 1.00 |      |
| 3. Information Reading | 29,668 | 8.63  | 2.45 | 0.68 | 0.66 | 1.00 |

*Note.* Analysis was conducted with a statewide population.

**Table 4.15 The 2010 MSA-Reading Decision Accuracy and Consistency Indices: Grade 3**

| Form | Performance Cut | Accuracy | False Positive | False Negative | Consistency |
|------|-----------------|----------|----------------|----------------|-------------|
| A    | B : PA          | 0.92     | 0.03           | 0.05           | 0.89        |
|      | BP : A          | 0.92     | 0.05           | 0.03           | 0.88        |
| B    | B : PA          | 0.93     | 0.02           | 0.04           | 0.91        |
|      | BP : A          | 0.91     | 0.05           | 0.04           | 0.88        |

*Note.* B: PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

**Table 4.16 The 2010 MSA-Reading Decision Accuracy and Consistency Indices: Grade 4**

| Form | Performance Cut | Accuracy | False Positive | False Negative | Consistency |
|------|-----------------|----------|----------------|----------------|-------------|
| A    | B : PA          | 0.93     | 0.03           | 0.04           | 0.91        |
|      | BP : A          | 0.91     | 0.05           | 0.04           | 0.87        |
| B    | B : PA          | 0.93     | 0.02           | 0.04           | 0.91        |
|      | BP : A          | 0.90     | 0.05           | 0.04           | 0.87        |

*Note.* B: PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

**Table 4.17 The 2010 MSA-Reading Decision Accuracy and Consistency Indices: Grade 5**

| Form | Performance Cut | Accuracy | False Positive | False Negative | Consistency |
|------|-----------------|----------|----------------|----------------|-------------|
| A    | B : PA          | 0.94     | 0.02           | 0.04           | 0.91        |
|      | BP : A          | 0.87     | 0.07           | 0.06           | 0.82        |
| B    | B : PA          | 0.94     | 0.02           | 0.04           | 0.92        |
|      | BP : A          | 0.87     | 0.07           | 0.06           | 0.82        |

*Note.* B: PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

**Table 4.18 The 2010 MSA-Reading Decision Accuracy and Consistency Indices: Grade 6**

| Form | Performance Cut | Accuracy | False Positive | False Negative | Consistency |
|------|-----------------|----------|----------------|----------------|-------------|
| A    | B : PA          | 0.92     | 0.03           | 0.05           | 0.89        |
|      | BP : A          | 0.88     | 0.07           | 0.06           | 0.83        |
| B    | B : PA          | 0.93     | 0.03           | 0.05           | 0.89        |
|      | BP : A          | 0.87     | 0.08           | 0.06           | 0.82        |

*Note.* B: PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

**Table 4.19 The 2010 MSA-Reading Decision Accuracy and Consistency Indices: Grade 7**

| Form | Performance Cut | Accuracy | False Positive | False Negative | Consistency |
|------|-----------------|----------|----------------|----------------|-------------|
| A    | B : PA          | 0.91     | 0.04           | 0.05           | 0.87        |
|      | BP : A          | 0.89     | 0.06           | 0.05           | 0.84        |
| B    | B : PA          | 0.91     | 0.03           | 0.06           | 0.88        |
|      | BP : A          | 0.89     | 0.07           | 0.05           | 0.84        |

*Note.* B: PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.

**Table 4.20 The 2010 MSA-Reading Decision Accuracy and Consistency Indices: Grade 8**

| Form | Performance Cut | Accuracy | False Positive | False Negative | Consistency |
|------|-----------------|----------|----------------|----------------|-------------|
| A    | B : PA          | 0.90     | 0.04           | 0.06           | 0.87        |
|      | BP : A          | 0.89     | 0.06           | 0.06           | 0.84        |
| B    | B : PA          | 0.91     | 0.03           | 0.06           | 0.87        |
|      | BP : A          | 0.88     | 0.06           | 0.06           | 0.84        |

*Note.* B: PA denotes the cut between Basic and Proficient, while BP:A denotes the cut between Proficient and Advanced.



**Table 4.21 The 2010 MSA-Math Score Difference between Rater 1 and Rater 2: Grade 3**

| Form | Item CID | Perfect |       | Adjacent |       | Discrepancy |      | Total  |        |
|------|----------|---------|-------|----------|-------|-------------|------|--------|--------|
|      |          | N       | %     | N        | %     | N           | %    | N      | %      |
| A    | 3571629  | 19,230  | 73.47 | 6,865    | 26.23 | 78          | 0.30 | 26,173 | 100.00 |
|      | 3571626  | 20,063  | 77.93 | 5,634    | 21.88 | 47          | 0.18 | 25,744 | 100.00 |
|      | 3571719  | 20,869  | 79.86 | 5,178    | 19.82 | 84          | 0.32 | 26,131 | 100.00 |
|      | 3571720  | 18,257  | 70.19 | 7,639    | 29.37 | 114         | 0.44 | 26,010 | 100.00 |
| B    | 3571492  | 18,639  | 70.31 | 7,676    | 28.96 | 193         | 0.73 | 26,508 | 100.00 |
|      | 3571493  | 19,745  | 75.37 | 6,369    | 24.31 | 82          | 0.31 | 26,196 | 100.00 |
|      | 3375185  | 18,090  | 68.61 | 7,824    | 29.67 | 453         | 1.72 | 26,367 | 100.00 |
|      | 3375187  | 20,820  | 79.28 | 5,361    | 20.41 | 81          | 0.31 | 26,262 | 100.00 |

Note. Analysis was conducted with a statewide population.

**Table 4.22 The 2010 MSA-Math Score Difference between Rater 1 and Rater 2: Grade 4**

| Form | Item CID | Perfect |       | Adjacent |       | Discrepancy |      | Total  |        |
|------|----------|---------|-------|----------|-------|-------------|------|--------|--------|
|      |          | N       | %     | N        | %     | N           | %    | N      | %      |
| A    | 3374845  | 23,641  | 80.11 | 5,853    | 19.83 | 16          | 0.05 | 29,510 | 100.00 |
|      | 3374844  | 22,853  | 77.39 | 6,624    | 22.43 | 53          | 0.18 | 29,530 | 100.00 |
|      | 3557831  | 22,395  | 75.86 | 7,051    | 23.88 | 75          | 0.25 | 29,521 | 100.00 |
|      | 3557830  | 22,980  | 77.93 | 6,431    | 21.81 | 76          | 0.26 | 29,487 | 100.00 |
| B    | 3560636  | 21,829  | 74.59 | 7,398    | 25.28 | 40          | 0.14 | 29,267 | 100.00 |
|      | 3560637  | 23,559  | 80.30 | 5,727    | 19.52 | 53          | 0.18 | 29,339 | 100.00 |
|      | 3560662  | 23,333  | 79.19 | 6,076    | 20.62 | 57          | 0.19 | 29,466 | 100.00 |
|      | 3560660  | 25,353  | 86.31 | 3,940    | 13.41 | 80          | 0.27 | 29,373 | 100.00 |

Note. Analysis was conducted with a statewide population.

**Table 4.23 The 2010 MSA-Math Score Difference between Rater 1 and Rater 2: Grade 5**

| Form | Item CID | Perfect |       | Adjacent |       | Discrepancy |      | Total  |        |
|------|----------|---------|-------|----------|-------|-------------|------|--------|--------|
|      |          | N       | %     | N        | %     | N           | %    | N      | %      |
| A    | 3374874  | 21,354  | 73.45 | 7,549    | 25.97 | 168         | 0.58 | 29,071 | 100.00 |
|      | 3374873  | 20,612  | 71.14 | 8,203    | 28.31 | 159         | 0.55 | 28,974 | 100.00 |
|      | 3557885  | 20,571  | 70.56 | 8,486    | 29.11 | 97          | 0.33 | 29,154 | 100.00 |
|      | 3557883  | 22,055  | 75.72 | 6,897    | 23.68 | 176         | 0.60 | 29,128 | 100.00 |
| B    | 3571706  | 20,902  | 72.30 | 7,807    | 27.00 | 203         | 0.70 | 28,912 | 100.00 |
|      | 3571707  | 22,680  | 78.58 | 6,029    | 20.89 | 154         | 0.53 | 28,863 | 100.00 |
|      | 3557869  | 21,774  | 75.32 | 7,003    | 24.22 | 132         | 0.46 | 28,909 | 100.00 |
|      | 3557870  | 21,182  | 73.31 | 7,647    | 26.47 | 65          | 0.22 | 28,894 | 100.00 |

Note. Analysis was conducted with a statewide population.

**Table 4.24 The 2010 MSA-Math Score Difference between Rater 1 and Rater 2: Grade 6**

| Form | Item CID | Perfect |       | Adjacent |       | Discrepancy |      | Total  |        |
|------|----------|---------|-------|----------|-------|-------------|------|--------|--------|
|      |          | N       | %     | N        | %     | N           | %    | N      | %      |
| A    | 3568771  | 22,508  | 75.46 | 7,284    | 24.42 | 35          | 0.12 | 29,827 | 100.00 |
|      | 3568770  | 22,944  | 77.06 | 6,775    | 22.76 | 54          | 0.18 | 29,773 | 100.00 |
|      | 3562055  | 21,901  | 73.46 | 7,861    | 26.37 | 50          | 0.17 | 29,812 | 100.00 |
|      | 3562053  | 22,334  | 75.00 | 7,365    | 24.73 | 81          | 0.27 | 29,780 | 100.00 |
| B    | 3489708  | 22,665  | 77.83 | 6,357    | 21.83 | 98          | 0.34 | 29,120 | 100.00 |
|      | 3489707  | 23,674  | 81.51 | 5,335    | 18.37 | 34          | 0.12 | 29,043 | 100.00 |
|      | 3562091  | 22,058  | 76.09 | 6,820    | 23.52 | 113         | 0.39 | 28,991 | 100.00 |
|      | 3562092  | 21,377  | 73.51 | 7,615    | 26.18 | 90          | 0.31 | 29,082 | 100.00 |

Note. Analysis was conducted with a statewide population.

**Table 4.25 The 2010 MSA-Math Score Difference between Rater 1 and Rater 2: Grade 7**

| Form | Item CID | Perfect |       | Adjacent |       | Discrepancy |      | Total  |        |
|------|----------|---------|-------|----------|-------|-------------|------|--------|--------|
|      |          | N       | %     | N        | %     | N           | %    | N      | %      |
| A    | 3560786  | 20,178  | 68.37 | 8,965    | 30.37 | 372         | 1.26 | 29,515 | 100.00 |
|      | 3560784  | 21,806  | 73.93 | 7,522    | 25.50 | 166         | 0.56 | 29,494 | 100.00 |
|      | 3577916  | 20,896  | 70.56 | 8,499    | 28.70 | 219         | 0.74 | 29,614 | 100.00 |
|      | 3577919  | 22,444  | 75.84 | 6,842    | 23.12 | 306         | 1.03 | 29,592 | 100.00 |
| B    | 3560795  | 20,510  | 70.50 | 8,329    | 28.63 | 252         | 0.87 | 29,091 | 100.00 |
|      | 3560796  | 19,082  | 65.91 | 9,434    | 32.58 | 437         | 1.51 | 28,953 | 100.00 |
|      | 3562065  | 20,263  | 70.22 | 8,379    | 29.04 | 214         | 0.74 | 28,856 | 100.00 |
|      | 3562066  | 20,806  | 72.25 | 7,723    | 26.82 | 269         | 0.93 | 28,798 | 100.00 |

Note. Analysis was conducted with a statewide population.

**Table 4.26 The 2010 MSA-Math Score Difference between Rater 1 and Rater 2: Grade 8**

| Form | Item CID | Perfect |       | Adjacent |       | Discrepancy |      | Total  |        |
|------|----------|---------|-------|----------|-------|-------------|------|--------|--------|
|      |          | N       | %     | N        | %     | N           | %    | N      | %      |
| A    | 3570926  | 22,024  | 73.53 | 7,873    | 26.28 | 57          | 0.19 | 29,954 | 100.00 |
|      | 3570928  | 21,349  | 71.69 | 8,330    | 27.97 | 101         | 0.34 | 29,780 | 100.00 |
|      | 3571809  | 21,291  | 71.24 | 8,504    | 28.45 | 91          | 0.30 | 29,886 | 100.00 |
|      | 3571811  | 22,573  | 75.77 | 7,186    | 24.12 | 33          | 0.11 | 29,792 | 100.00 |
| B    | 3560856  | 21,366  | 72.86 | 7,853    | 26.78 | 104         | 0.35 | 29,323 | 100.00 |
|      | 3560855  | 20,658  | 71.02 | 8,337    | 28.66 | 92          | 0.32 | 29,087 | 100.00 |
|      | 3570913  | 21,274  | 72.66 | 7,857    | 26.83 | 148         | 0.51 | 29,279 | 100.00 |
|      | 3570916  | 21,692  | 74.37 | 7,402    | 25.38 | 72          | 0.25 | 29,166 | 100.00 |

Note. Analysis was conducted with a statewide population.

**Table 4.27 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 3 Form A**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 47                  |
| 1         | 240 <sup>a</sup> | 34                  |
| 2         | 262              | 25                  |
| 3         | 278              | 21                  |
| 4         | 290              | 19                  |
| 5         | 300              | 17                  |
| 6         | 308              | 16                  |
| 7         | 316              | 15                  |
| 8         | 322              | 14                  |
| 9         | 328              | 14                  |
| 10        | 334              | 13                  |
| 11        | 340              | 13                  |
| 12        | 345              | 13                  |
| 13        | 349              | 12                  |
| 14        | 354              | 12                  |
| 15        | 359              | 12                  |
| 16        | 363              | 12                  |
| 17        | 367              | 12                  |
| 18        | 371              | 12                  |
| 19        | 376              | 12                  |
| 20        | 380              | 11                  |
| 21        | 384              | 11                  |
| 22        | 388              | 11                  |
| 23        | 392              | 11                  |
| 24        | 396              | 11                  |
| 25        | 400              | 12                  |
| 26        | 404              | 12                  |
| 27        | 408              | 12                  |
| 28        | 413              | 12                  |
| 29        | 417              | 12                  |
| 30        | 422              | 12                  |
| 31        | 427              | 13                  |
| 32        | 432              | 13                  |
| 33        | 437              | 14                  |
| 34        | 443              | 14                  |
| 35        | 450              | 15                  |
| 36        | 457              | 16                  |
| 37        | 465              | 17                  |
| 38        | 475              | 19                  |
| 39        | 487              | 21                  |
| 40        | 503              | 24                  |
| 41        | 522              | 27                  |
| 42        | 546              | 29                  |
| 43        | 574              | 31                  |
| 44        | 608              | 38                  |
| 45        | 650 <sup>b</sup> | 49                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.28 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 3 Form B**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 47                  |
| 1         | 240 <sup>a</sup> | 34                  |
| 2         | 263              | 25                  |
| 3         | 279              | 21                  |
| 4         | 291              | 19                  |
| 5         | 301              | 17                  |
| 6         | 309              | 16                  |
| 7         | 317              | 15                  |
| 8         | 324              | 14                  |
| 9         | 330              | 14                  |
| 10        | 335              | 13                  |
| 11        | 341              | 13                  |
| 12        | 346              | 13                  |
| 13        | 351              | 12                  |
| 14        | 355              | 12                  |
| 15        | 360              | 12                  |
| 16        | 364              | 12                  |
| 17        | 368              | 12                  |
| 18        | 372              | 12                  |
| 19        | 377              | 11                  |
| 20        | 381              | 11                  |
| 21        | 385              | 11                  |
| 22        | 389              | 11                  |
| 23        | 393              | 11                  |
| 24        | 396              | 11                  |
| 25        | 401              | 11                  |
| 26        | 405              | 12                  |
| 27        | 409              | 12                  |
| 28        | 413              | 12                  |
| 29        | 417              | 12                  |
| 30        | 422              | 12                  |
| 31        | 427              | 13                  |
| 32        | 432              | 13                  |
| 33        | 437              | 13                  |
| 34        | 443              | 14                  |
| 35        | 449              | 15                  |
| 36        | 457              | 16                  |
| 37        | 465              | 17                  |
| 38        | 474              | 19                  |
| 39        | 486              | 21                  |
| 40        | 502              | 24                  |
| 41        | 522              | 27                  |
| 42        | 546              | 29                  |
| 43        | 573              | 31                  |
| 44        | 607              | 37                  |
| 45        | 650 <sup>b</sup> | 49                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.29 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 3 Form A**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 49                     |
| GR     | 1         | 262                 | 36                     |
| GR     | 2         | 291                 | 27                     |
| GR     | 3         | 311                 | 23                     |
| GR     | 4         | 326                 | 21                     |
| GR     | 5         | 339                 | 20                     |
| GR     | 6         | 351                 | 19                     |
| GR     | 7         | 362                 | 18                     |
| GR     | 8         | 372                 | 18                     |
| GR     | 9         | 382                 | 18                     |
| GR     | 10        | 393                 | 18                     |
| GR     | 11        | 403                 | 19                     |
| GR     | 12        | 415                 | 20                     |
| GR     | 13        | 429                 | 22                     |
| GR     | 14        | 446                 | 26                     |
| GR     | 15        | 473                 | 34                     |
| GR     | 16        | 650 <sup>b</sup>    | 47                     |
| LI     | 0         | 240 <sup>a</sup>    | 49                     |
| LI     | 1         | 286                 | 37                     |
| LI     | 2         | 316                 | 28                     |
| LI     | 3         | 337                 | 24                     |
| LI     | 4         | 354                 | 23                     |
| LI     | 5         | 369                 | 22                     |
| LI     | 6         | 384                 | 21                     |
| LI     | 7         | 398                 | 22                     |
| LI     | 8         | 413                 | 22                     |
| LI     | 9         | 429                 | 24                     |
| LI     | 10        | 448                 | 26                     |
| LI     | 11        | 473                 | 32                     |
| LI     | 12        | 515                 | 42                     |
| LI     | 13        | 574                 | 45                     |
| LI     | 14        | 650 <sup>b</sup>    | 54                     |
| IN     | 0         | 240 <sup>a</sup>    | 49                     |
| IN     | 1         | 291                 | 36                     |
| IN     | 2         | 322                 | 28                     |
| IN     | 3         | 342                 | 24                     |
| IN     | 4         | 358                 | 22                     |
| IN     | 5         | 373                 | 21                     |
| IN     | 6         | 385                 | 20                     |
| IN     | 7         | 398                 | 20                     |
| IN     | 8         | 410                 | 20                     |
| IN     | 9         | 423                 | 21                     |
| IN     | 10        | 437                 | 22                     |
| IN     | 11        | 455                 | 25                     |
| IN     | 12        | 479                 | 31                     |
| IN     | 13        | 517                 | 39                     |
| IN     | 14        | 571                 | 44                     |
| IN     | 15        | 650 <sup>b</sup>    | 53                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.30 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 3 Form B**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 49                     |
| GR     | 1         | 262                 | 36                     |
| GR     | 2         | 291                 | 27                     |
| GR     | 3         | 311                 | 23                     |
| GR     | 4         | 326                 | 21                     |
| GR     | 5         | 339                 | 20                     |
| GR     | 6         | 351                 | 19                     |
| GR     | 7         | 362                 | 18                     |
| GR     | 8         | 372                 | 18                     |
| GR     | 9         | 382                 | 18                     |
| GR     | 10        | 393                 | 18                     |
| GR     | 11        | 403                 | 19                     |
| GR     | 12        | 415                 | 20                     |
| GR     | 13        | 429                 | 22                     |
| GR     | 14        | 446                 | 26                     |
| GR     | 15        | 473                 | 34                     |
| GR     | 16        | 650 <sup>b</sup>    | 47                     |
| LI     | 0         | 240 <sup>a</sup>    | 48                     |
| LI     | 1         | 301                 | 35                     |
| LI     | 2         | 329                 | 27                     |
| LI     | 3         | 348                 | 23                     |
| LI     | 4         | 364                 | 22                     |
| LI     | 5         | 378                 | 21                     |
| LI     | 6         | 391                 | 21                     |
| LI     | 7         | 404                 | 21                     |
| LI     | 8         | 418                 | 21                     |
| LI     | 9         | 432                 | 23                     |
| LI     | 10        | 450                 | 26                     |
| LI     | 11        | 475                 | 32                     |
| LI     | 12        | 521                 | 44                     |
| LI     | 13        | 581                 | 44                     |
| LI     | 14        | 650 <sup>b</sup>    | 53                     |
| IN     | 0         | 240 <sup>a</sup>    | 49                     |
| IN     | 1         | 283                 | 36                     |
| IN     | 2         | 314                 | 28                     |
| IN     | 3         | 335                 | 25                     |
| IN     | 4         | 352                 | 23                     |
| IN     | 5         | 368                 | 21                     |
| IN     | 6         | 381                 | 21                     |
| IN     | 7         | 394                 | 20                     |
| IN     | 8         | 407                 | 20                     |
| IN     | 9         | 420                 | 21                     |
| IN     | 10        | 434                 | 22                     |
| IN     | 11        | 451                 | 25                     |
| IN     | 12        | 475                 | 30                     |
| IN     | 13        | 512                 | 39                     |
| IN     | 14        | 562                 | 42                     |
| IN     | 15        | 650 <sup>b</sup>    | 52                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.31 The 2010 MSA-Reading Total Raw Score to Scale Score Conversion Table for Verbatim Students: Grade 3 Form A**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 47                  |
| 1         | 262              | 35                  |
| 2         | 288              | 26                  |
| 3         | 306              | 22                  |
| 4         | 319              | 20                  |
| 5         | 330              | 18                  |
| 6         | 340              | 17                  |
| 7         | 348              | 16                  |
| 8         | 356              | 16                  |
| 9         | 364              | 15                  |
| 10        | 371              | 15                  |
| 11        | 378              | 15                  |
| 12        | 385              | 15                  |
| 13        | 391              | 15                  |
| 14        | 398              | 15                  |
| 15        | 404              | 15                  |
| 16        | 411              | 15                  |
| 17        | 418              | 15                  |
| 18        | 426              | 16                  |
| 19        | 433              | 16                  |
| 20        | 442              | 17                  |
| 21        | 452              | 18                  |
| 22        | 463              | 20                  |
| 23        | 476              | 22                  |
| 24        | 494              | 25                  |
| 25        | 516              | 29                  |
| 26        | 543              | 30                  |
| 27        | 572              | 31                  |
| 28        | 608              | 38                  |
| 29        | 650 <sup>b</sup> | 49                  |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

**Table 4.32 The 2010 MSA-Reading Total Raw Score to Scale Score Conversion Table for Verbatim Students: Grade 3 Form B**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 47                  |
| 1         | 265              | 34                  |
| 2         | 291              | 25                  |
| 3         | 308              | 22                  |
| 4         | 321              | 20                  |
| 5         | 332              | 18                  |
| 6         | 342              | 17                  |
| 7         | 350              | 16                  |
| 8         | 358              | 16                  |
| 9         | 366              | 15                  |
| 10        | 373              | 15                  |
| 11        | 380              | 15                  |
| 12        | 386              | 14                  |
| 13        | 392              | 14                  |
| 14        | 399              | 14                  |
| 15        | 405              | 14                  |
| 16        | 412              | 15                  |
| 17        | 419              | 15                  |
| 18        | 426              | 15                  |
| 19        | 433              | 16                  |
| 20        | 441              | 17                  |
| 21        | 451              | 18                  |
| 22        | 462              | 20                  |
| 23        | 475              | 22                  |
| 24        | 492              | 26                  |
| 25        | 516              | 29                  |
| 26        | 543              | 30                  |
| 27        | 571              | 31                  |
| 28        | 606              | 38                  |
| 29        | 650 <sup>b</sup> | 49                  |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.



**Table 4.33 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table for Verbatim Students: Grade 3 Form A**

| Strand | Raw Score | Scale Score (SS) | Standard Error (SE) |
|--------|-----------|------------------|---------------------|
| LI     | 0         | 240 <sup>a</sup> | 49                  |
| LI     | 1         | 286              | 37                  |
| LI     | 2         | 316              | 28                  |
| LI     | 3         | 337              | 24                  |
| LI     | 4         | 354              | 23                  |
| LI     | 5         | 369              | 22                  |
| LI     | 6         | 384              | 21                  |
| LI     | 7         | 398              | 22                  |
| LI     | 8         | 413              | 22                  |
| LI     | 9         | 429              | 24                  |
| LI     | 10        | 448              | 26                  |
| LI     | 11        | 473              | 32                  |
| LI     | 12        | 515              | 42                  |
| LI     | 13        | 574              | 45                  |
| LI     | 14        | 650 <sup>b</sup> | 54                  |
| IN     | 0         | 240 <sup>a</sup> | 49                  |
| IN     | 1         | 291              | 36                  |
| IN     | 2         | 322              | 28                  |
| IN     | 3         | 342              | 24                  |
| IN     | 4         | 358              | 22                  |
| IN     | 5         | 373              | 21                  |
| IN     | 6         | 385              | 20                  |
| IN     | 7         | 398              | 20                  |
| IN     | 8         | 410              | 20                  |
| IN     | 9         | 423              | 21                  |
| IN     | 10        | 437              | 22                  |
| IN     | 11        | 455              | 25                  |
| IN     | 12        | 479              | 31                  |
| IN     | 13        | 517              | 39                  |
| IN     | 14        | 571              | 44                  |
| IN     | 15        | 650 <sup>b</sup> | 53                  |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. LI=Literary, IN=Informational

**Table 4.34 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table for Verbatim Students: Grade 3 Form B**

| Strand | Raw Score | Scale Score (SS) | Standard Error (SE) |
|--------|-----------|------------------|---------------------|
| LI     | 0         | 240 <sup>a</sup> | 48                  |
| LI     | 1         | 301              | 35                  |
| LI     | 2         | 329              | 27                  |
| LI     | 3         | 348              | 23                  |
| LI     | 4         | 364              | 22                  |
| LI     | 5         | 378              | 21                  |
| LI     | 6         | 391              | 21                  |
| LI     | 7         | 404              | 21                  |
| LI     | 8         | 418              | 21                  |
| LI     | 9         | 432              | 23                  |
| LI     | 10        | 450              | 26                  |
| LI     | 11        | 475              | 32                  |
| LI     | 12        | 521              | 44                  |
| LI     | 13        | 581              | 44                  |
| LI     | 14        | 650 <sup>b</sup> | 53                  |
| IN     | 0         | 240 <sup>a</sup> | 49                  |
| IN     | 1         | 283              | 36                  |
| IN     | 2         | 314              | 28                  |
| IN     | 3         | 335              | 25                  |
| IN     | 4         | 352              | 23                  |
| IN     | 5         | 368              | 21                  |
| IN     | 6         | 381              | 21                  |
| IN     | 7         | 394              | 20                  |
| IN     | 8         | 407              | 20                  |
| IN     | 9         | 420              | 21                  |
| IN     | 10        | 434              | 22                  |
| IN     | 11        | 451              | 25                  |
| IN     | 12        | 475              | 30                  |
| IN     | 13        | 512              | 39                  |
| IN     | 14        | 562              | 42                  |
| IN     | 15        | 650 <sup>b</sup> | 52                  |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. LI=Literary, IN=Informational

**Table 4.35 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 4 Form A**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 47                  |
| 1         | 240 <sup>a</sup> | 34                  |
| 2         | 244              | 25                  |
| 3         | 260              | 21                  |
| 4         | 272              | 19                  |
| 5         | 282              | 17                  |
| 6         | 291              | 16                  |
| 7         | 299              | 16                  |
| 8         | 306              | 15                  |
| 9         | 312              | 14                  |
| 10        | 318              | 14                  |
| 11        | 324              | 14                  |
| 12        | 329              | 13                  |
| 13        | 335              | 13                  |
| 14        | 340              | 13                  |
| 15        | 344              | 12                  |
| 16        | 349              | 12                  |
| 17        | 354              | 12                  |
| 18        | 358              | 12                  |
| 19        | 362              | 12                  |
| 20        | 367              | 12                  |
| 21        | 371              | 12                  |
| 22        | 375              | 12                  |
| 23        | 380              | 12                  |
| 24        | 384              | 12                  |
| 25        | 388              | 12                  |
| 26        | 393              | 12                  |
| 27        | 397              | 12                  |
| 28        | 402              | 12                  |
| 29        | 406              | 13                  |
| 30        | 411              | 13                  |
| 31        | 417              | 13                  |
| 32        | 422              | 14                  |
| 33        | 428              | 14                  |
| 34        | 434              | 15                  |
| 35        | 441              | 16                  |
| 36        | 449              | 17                  |
| 37        | 459              | 18                  |
| 38        | 470              | 20                  |
| 39        | 484              | 23                  |
| 40        | 504              | 28                  |
| 41        | 534              | 34                  |
| 42        | 570              | 34                  |
| 43        | 603              | 34                  |
| 44        | 642              | 40                  |
| 45        | 650 <sup>b</sup> | 51                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.36 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 4 Form B**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 47                  |
| 1         | 240 <sup>a</sup> | 34                  |
| 2         | 241              | 25                  |
| 3         | 257              | 21                  |
| 4         | 270              | 19                  |
| 5         | 280              | 18                  |
| 6         | 289              | 17                  |
| 7         | 297              | 16                  |
| 8         | 304              | 15                  |
| 9         | 311              | 15                  |
| 10        | 318              | 14                  |
| 11        | 324              | 14                  |
| 12        | 329              | 13                  |
| 13        | 335              | 13                  |
| 14        | 340              | 13                  |
| 15        | 345              | 13                  |
| 16        | 350              | 12                  |
| 17        | 354              | 12                  |
| 18        | 359              | 12                  |
| 19        | 363              | 12                  |
| 20        | 368              | 12                  |
| 21        | 372              | 12                  |
| 22        | 376              | 12                  |
| 23        | 381              | 12                  |
| 24        | 385              | 12                  |
| 25        | 390              | 12                  |
| 26        | 394              | 12                  |
| 27        | 399              | 12                  |
| 28        | 403              | 13                  |
| 29        | 408              | 13                  |
| 30        | 413              | 13                  |
| 31        | 419              | 13                  |
| 32        | 424              | 14                  |
| 33        | 430              | 14                  |
| 34        | 437              | 15                  |
| 35        | 444              | 16                  |
| 36        | 453              | 17                  |
| 37        | 462              | 18                  |
| 38        | 473              | 20                  |
| 39        | 487              | 22                  |
| 40        | 504              | 25                  |
| 41        | 526              | 28                  |
| 42        | 552              | 30                  |
| 43        | 582              | 32                  |
| 44        | 618              | 39                  |
| 45        | 650 <sup>b</sup> | 50                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.37 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 4 Form A**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 49                     |
| GR     | 1         | 245                 | 36                     |
| GR     | 2         | 275                 | 28                     |
| GR     | 3         | 295                 | 24                     |
| GR     | 4         | 312                 | 23                     |
| GR     | 5         | 326                 | 21                     |
| GR     | 6         | 340                 | 21                     |
| GR     | 7         | 352                 | 20                     |
| GR     | 8         | 364                 | 20                     |
| GR     | 9         | 376                 | 20                     |
| GR     | 10        | 388                 | 20                     |
| GR     | 11        | 401                 | 21                     |
| GR     | 12        | 415                 | 23                     |
| GR     | 13        | 433                 | 26                     |
| GR     | 14        | 460                 | 35                     |
| GR     | 15        | 650 <sup>b</sup>    | 48                     |
| LI     | 0         | 240 <sup>a</sup>    | 49                     |
| LI     | 1         | 271                 | 36                     |
| LI     | 2         | 301                 | 28                     |
| LI     | 3         | 321                 | 24                     |
| LI     | 4         | 338                 | 23                     |
| LI     | 5         | 353                 | 22                     |
| LI     | 6         | 367                 | 22                     |
| LI     | 7         | 382                 | 22                     |
| LI     | 8         | 396                 | 22                     |
| LI     | 9         | 412                 | 24                     |
| LI     | 10        | 430                 | 25                     |
| LI     | 11        | 453                 | 29                     |
| LI     | 12        | 483                 | 36                     |
| LI     | 13        | 542                 | 52                     |
| LI     | 14        | 619                 | 48                     |
| LI     | 15        | 650 <sup>b</sup>    | 55                     |
| IN     | 0         | 240 <sup>a</sup>    | 50                     |
| IN     | 1         | 269                 | 38                     |
| IN     | 2         | 302                 | 29                     |
| IN     | 3         | 324                 | 25                     |
| IN     | 4         | 341                 | 23                     |
| IN     | 5         | 356                 | 21                     |
| IN     | 6         | 369                 | 20                     |
| IN     | 7         | 382                 | 20                     |
| IN     | 8         | 394                 | 20                     |
| IN     | 9         | 407                 | 21                     |
| IN     | 10        | 421                 | 23                     |
| IN     | 11        | 439                 | 26                     |
| IN     | 12        | 464                 | 33                     |
| IN     | 13        | 517                 | 50                     |
| IN     | 14        | 588                 | 46                     |
| IN     | 15        | 650 <sup>b</sup>    | 54                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.38 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 4 Form B**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 49                     |
| GR     | 1         | 245                 | 36                     |
| GR     | 2         | 275                 | 28                     |
| GR     | 3         | 295                 | 24                     |
| GR     | 4         | 312                 | 23                     |
| GR     | 5         | 326                 | 21                     |
| GR     | 6         | 340                 | 21                     |
| GR     | 7         | 352                 | 20                     |
| GR     | 8         | 364                 | 20                     |
| GR     | 9         | 376                 | 20                     |
| GR     | 10        | 388                 | 20                     |
| GR     | 11        | 401                 | 21                     |
| GR     | 12        | 415                 | 23                     |
| GR     | 13        | 433                 | 26                     |
| GR     | 14        | 460                 | 35                     |
| GR     | 15        | 650 <sup>b</sup>    | 48                     |
| LI     | 0         | 240 <sup>a</sup>    | 50                     |
| LI     | 1         | 254                 | 37                     |
| LI     | 2         | 286                 | 29                     |
| LI     | 3         | 310                 | 26                     |
| LI     | 4         | 328                 | 24                     |
| LI     | 5         | 345                 | 23                     |
| LI     | 6         | 360                 | 22                     |
| LI     | 7         | 374                 | 22                     |
| LI     | 8         | 389                 | 22                     |
| LI     | 9         | 404                 | 23                     |
| LI     | 10        | 421                 | 25                     |
| LI     | 11        | 443                 | 28                     |
| LI     | 12        | 472                 | 34                     |
| LI     | 13        | 513                 | 39                     |
| LI     | 14        | 561                 | 42                     |
| LI     | 15        | 650 <sup>b</sup>    | 52                     |
| IN     | 0         | 240 <sup>a</sup>    | 50                     |
| IN     | 1         | 280                 | 37                     |
| IN     | 2         | 312                 | 29                     |
| IN     | 3         | 334                 | 25                     |
| IN     | 4         | 351                 | 23                     |
| IN     | 5         | 366                 | 21                     |
| IN     | 6         | 379                 | 21                     |
| IN     | 7         | 392                 | 21                     |
| IN     | 8         | 405                 | 21                     |
| IN     | 9         | 420                 | 22                     |
| IN     | 10        | 436                 | 24                     |
| IN     | 11        | 456                 | 27                     |
| IN     | 12        | 484                 | 34                     |
| IN     | 13        | 536                 | 48                     |
| IN     | 14        | 601                 | 45                     |
| IN     | 15        | 650 <sup>b</sup>    | 53                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.39 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 5 Form A**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 48                  |
| 1         | 240 <sup>a</sup> | 35                  |
| 2         | 258              | 26                  |
| 3         | 275              | 22                  |
| 4         | 287              | 19                  |
| 5         | 298              | 18                  |
| 6         | 306              | 17                  |
| 7         | 314              | 16                  |
| 8         | 321              | 15                  |
| 9         | 328              | 14                  |
| 10        | 334              | 14                  |
| 11        | 339              | 14                  |
| 12        | 345              | 13                  |
| 13        | 350              | 13                  |
| 14        | 355              | 13                  |
| 15        | 360              | 12                  |
| 16        | 364              | 12                  |
| 17        | 369              | 12                  |
| 18        | 373              | 12                  |
| 19        | 378              | 12                  |
| 20        | 382              | 12                  |
| 21        | 386              | 12                  |
| 22        | 391              | 12                  |
| 23        | 395              | 12                  |
| 24        | 399              | 12                  |
| 25        | 404              | 12                  |
| 26        | 408              | 12                  |
| 27        | 413              | 12                  |
| 28        | 417              | 12                  |
| 29        | 422              | 13                  |
| 30        | 427              | 13                  |
| 31        | 432              | 13                  |
| 32        | 438              | 14                  |
| 33        | 443              | 14                  |
| 34        | 450              | 15                  |
| 35        | 456              | 15                  |
| 36        | 464              | 16                  |
| 37        | 472              | 17                  |
| 38        | 482              | 19                  |
| 39        | 493              | 20                  |
| 40        | 507              | 22                  |
| 41        | 524              | 25                  |
| 42        | 544              | 27                  |
| 43        | 568              | 30                  |
| 44        | 601              | 37                  |
| 45        | 650 <sup>b</sup> | 50                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.40 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 5 Form B**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 47                  |
| 1         | 240 <sup>a</sup> | 34                  |
| 2         | 263              | 25                  |
| 3         | 279              | 21                  |
| 4         | 290              | 19                  |
| 5         | 300              | 17                  |
| 6         | 308              | 16                  |
| 7         | 316              | 15                  |
| 8         | 322              | 15                  |
| 9         | 328              | 14                  |
| 10        | 334              | 14                  |
| 11        | 340              | 13                  |
| 12        | 345              | 13                  |
| 13        | 350              | 13                  |
| 14        | 355              | 13                  |
| 15        | 359              | 12                  |
| 16        | 364              | 12                  |
| 17        | 368              | 12                  |
| 18        | 373              | 12                  |
| 19        | 377              | 12                  |
| 20        | 381              | 12                  |
| 21        | 385              | 12                  |
| 22        | 390              | 12                  |
| 23        | 394              | 12                  |
| 24        | 398              | 12                  |
| 25        | 402              | 12                  |
| 26        | 407              | 12                  |
| 27        | 411              | 12                  |
| 28        | 416              | 12                  |
| 29        | 420              | 12                  |
| 30        | 425              | 13                  |
| 31        | 430              | 13                  |
| 32        | 435              | 13                  |
| 33        | 441              | 14                  |
| 34        | 447              | 14                  |
| 35        | 454              | 15                  |
| 36        | 461              | 16                  |
| 37        | 469              | 17                  |
| 38        | 479              | 19                  |
| 39        | 491              | 21                  |
| 40        | 507              | 24                  |
| 41        | 527              | 27                  |
| 42        | 551              | 30                  |
| 43        | 581              | 33                  |
| 44        | 621              | 41                  |
| 45        | 650 <sup>b</sup> | 53                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.



**Table 4.41 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 5 Form A**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 48                     |
| GR     | 1         | 258                 | 35                     |
| GR     | 2         | 286                 | 27                     |
| GR     | 3         | 304                 | 23                     |
| GR     | 4         | 319                 | 21                     |
| GR     | 5         | 331                 | 20                     |
| GR     | 6         | 343                 | 19                     |
| GR     | 7         | 355                 | 19                     |
| GR     | 8         | 366                 | 19                     |
| GR     | 9         | 377                 | 20                     |
| GR     | 10        | 389                 | 20                     |
| GR     | 11        | 402                 | 21                     |
| GR     | 12        | 417                 | 23                     |
| GR     | 13        | 436                 | 27                     |
| GR     | 14        | 464                 | 36                     |
| GR     | 15        | 650 <sup>b</sup>    | 48                     |
| LI     | 0         | 240 <sup>a</sup>    | 52                     |
| LI     | 1         | 272                 | 41                     |
| LI     | 2         | 312                 | 33                     |
| LI     | 3         | 339                 | 28                     |
| LI     | 4         | 360                 | 25                     |
| LI     | 5         | 377                 | 23                     |
| LI     | 6         | 392                 | 22                     |
| LI     | 7         | 405                 | 21                     |
| LI     | 8         | 419                 | 21                     |
| LI     | 9         | 432                 | 22                     |
| LI     | 10        | 447                 | 23                     |
| LI     | 11        | 465                 | 25                     |
| LI     | 12        | 488                 | 30                     |
| LI     | 13        | 520                 | 35                     |
| LI     | 14        | 564                 | 42                     |
| LI     | 15        | 650 <sup>b</sup>    | 53                     |
| IN     | 0         | 240 <sup>a</sup>    | 48                     |
| IN     | 1         | 306                 | 35                     |
| IN     | 2         | 333                 | 26                     |
| IN     | 3         | 351                 | 23                     |
| IN     | 4         | 366                 | 21                     |
| IN     | 5         | 379                 | 20                     |
| IN     | 6         | 391                 | 20                     |
| IN     | 7         | 403                 | 20                     |
| IN     | 8         | 416                 | 21                     |
| IN     | 9         | 429                 | 22                     |
| IN     | 10        | 444                 | 23                     |
| IN     | 11        | 462                 | 26                     |
| IN     | 12        | 486                 | 31                     |
| IN     | 13        | 521                 | 37                     |
| IN     | 14        | 569                 | 43                     |
| IN     | 15        | 650 <sup>b</sup>    | 53                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.42 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 5 Form B**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 48                     |
| GR     | 1         | 258                 | 35                     |
| GR     | 2         | 286                 | 27                     |
| GR     | 3         | 304                 | 23                     |
| GR     | 4         | 319                 | 21                     |
| GR     | 5         | 331                 | 20                     |
| GR     | 6         | 343                 | 19                     |
| GR     | 7         | 355                 | 19                     |
| GR     | 8         | 366                 | 19                     |
| GR     | 9         | 377                 | 20                     |
| GR     | 10        | 389                 | 20                     |
| GR     | 11        | 402                 | 21                     |
| GR     | 12        | 417                 | 23                     |
| GR     | 13        | 436                 | 27                     |
| GR     | 14        | 464                 | 36                     |
| GR     | 15        | 650 <sup>b</sup>    | 48                     |
| LI     | 0         | 240 <sup>a</sup>    | 49                     |
| LI     | 1         | 293                 | 37                     |
| LI     | 2         | 324                 | 28                     |
| LI     | 3         | 345                 | 25                     |
| LI     | 4         | 362                 | 23                     |
| LI     | 5         | 376                 | 21                     |
| LI     | 6         | 389                 | 20                     |
| LI     | 7         | 402                 | 20                     |
| LI     | 8         | 414                 | 20                     |
| LI     | 9         | 427                 | 21                     |
| LI     | 10        | 441                 | 22                     |
| LI     | 11        | 458                 | 25                     |
| LI     | 12        | 480                 | 30                     |
| LI     | 13        | 515                 | 37                     |
| LI     | 14        | 563                 | 43                     |
| LI     | 15        | 650 <sup>b</sup>    | 53                     |
| IN     | 0         | 240 <sup>a</sup>    | 49                     |
| IN     | 1         | 297                 | 36                     |
| IN     | 2         | 327                 | 28                     |
| IN     | 3         | 347                 | 24                     |
| IN     | 4         | 364                 | 22                     |
| IN     | 5         | 378                 | 21                     |
| IN     | 6         | 391                 | 21                     |
| IN     | 7         | 403                 | 20                     |
| IN     | 8         | 416                 | 21                     |
| IN     | 9         | 430                 | 22                     |
| IN     | 10        | 445                 | 23                     |
| IN     | 11        | 463                 | 26                     |
| IN     | 12        | 488                 | 32                     |
| IN     | 13        | 532                 | 44                     |
| IN     | 14        | 600                 | 49                     |
| IN     | 15        | 650 <sup>b</sup>    | 57                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.43 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 6 Form A**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 44                  |
| 1         | 241              | 31                  |
| 2         | 264              | 23                  |
| 3         | 279              | 19                  |
| 4         | 289              | 17                  |
| 5         | 298              | 16                  |
| 6         | 306              | 15                  |
| 7         | 312              | 14                  |
| 8         | 318              | 13                  |
| 9         | 324              | 13                  |
| 10        | 329              | 12                  |
| 11        | 334              | 12                  |
| 12        | 339              | 12                  |
| 13        | 343              | 12                  |
| 14        | 347              | 11                  |
| 15        | 352              | 11                  |
| 16        | 356              | 11                  |
| 17        | 360              | 11                  |
| 18        | 364              | 11                  |
| 19        | 368              | 11                  |
| 20        | 371              | 11                  |
| 21        | 375              | 11                  |
| 22        | 379              | 11                  |
| 23        | 383              | 11                  |
| 24        | 387              | 11                  |
| 25        | 391              | 11                  |
| 26        | 395              | 11                  |
| 27        | 399              | 11                  |
| 28        | 403              | 11                  |
| 29        | 408              | 12                  |
| 30        | 412              | 12                  |
| 31        | 417              | 12                  |
| 32        | 422              | 12                  |
| 33        | 427              | 13                  |
| 34        | 432              | 13                  |
| 35        | 438              | 14                  |
| 36        | 445              | 14                  |
| 37        | 452              | 15                  |
| 38        | 460              | 17                  |
| 39        | 470              | 18                  |
| 40        | 482              | 20                  |
| 41        | 498              | 24                  |
| 42        | 520              | 28                  |
| 43        | 549              | 32                  |
| 44        | 588              | 38                  |
| 45        | 650 <sup>b</sup> | 48                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.44 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 6 Form B**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 44                  |
| 1         | 248              | 31                  |
| 2         | 270              | 23                  |
| 3         | 284              | 19                  |
| 4         | 295              | 17                  |
| 5         | 304              | 15                  |
| 6         | 311              | 14                  |
| 7         | 317              | 14                  |
| 8         | 323              | 13                  |
| 9         | 329              | 13                  |
| 10        | 334              | 12                  |
| 11        | 339              | 12                  |
| 12        | 343              | 12                  |
| 13        | 348              | 11                  |
| 14        | 352              | 11                  |
| 15        | 356              | 11                  |
| 16        | 360              | 11                  |
| 17        | 364              | 11                  |
| 18        | 368              | 11                  |
| 19        | 372              | 11                  |
| 20        | 376              | 11                  |
| 21        | 380              | 11                  |
| 22        | 384              | 11                  |
| 23        | 387              | 11                  |
| 24        | 391              | 11                  |
| 25        | 395              | 11                  |
| 26        | 399              | 11                  |
| 27        | 403              | 11                  |
| 28        | 407              | 11                  |
| 29        | 412              | 12                  |
| 30        | 416              | 12                  |
| 31        | 421              | 12                  |
| 32        | 426              | 12                  |
| 33        | 431              | 13                  |
| 34        | 437              | 13                  |
| 35        | 443              | 14                  |
| 36        | 450              | 15                  |
| 37        | 458              | 16                  |
| 38        | 467              | 18                  |
| 39        | 479              | 20                  |
| 40        | 493              | 23                  |
| 41        | 512              | 25                  |
| 42        | 535              | 27                  |
| 43        | 560              | 29                  |
| 44        | 592              | 35                  |
| 45        | 650 <sup>b</sup> | 46                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.45 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 6 Form A**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 44                     |
| GR     | 1         | 270                 | 32                     |
| GR     | 2         | 295                 | 24                     |
| GR     | 3         | 311                 | 21                     |
| GR     | 4         | 325                 | 19                     |
| GR     | 5         | 336                 | 18                     |
| GR     | 6         | 347                 | 18                     |
| GR     | 7         | 357                 | 18                     |
| GR     | 8         | 367                 | 18                     |
| GR     | 9         | 378                 | 18                     |
| GR     | 10        | 389                 | 19                     |
| GR     | 11        | 401                 | 20                     |
| GR     | 12        | 415                 | 21                     |
| GR     | 13        | 432                 | 25                     |
| GR     | 14        | 458                 | 33                     |
| GR     | 15        | 650 <sup>b</sup>    | 45                     |
| LI     | 0         | 240 <sup>a</sup>    | 46                     |
| LI     | 1         | 280                 | 34                     |
| LI     | 2         | 308                 | 26                     |
| LI     | 3         | 326                 | 22                     |
| LI     | 4         | 341                 | 20                     |
| LI     | 5         | 354                 | 19                     |
| LI     | 6         | 365                 | 19                     |
| LI     | 7         | 376                 | 18                     |
| LI     | 8         | 388                 | 19                     |
| LI     | 9         | 399                 | 19                     |
| LI     | 10        | 412                 | 20                     |
| LI     | 11        | 427                 | 22                     |
| LI     | 12        | 445                 | 25                     |
| LI     | 13        | 471                 | 32                     |
| LI     | 14        | 525                 | 49                     |
| LI     | 15        | 650 <sup>b</sup>    | 56                     |
| IN     | 0         | 240 <sup>a</sup>    | 46                     |
| IN     | 1         | 290                 | 34                     |
| IN     | 2         | 319                 | 27                     |
| IN     | 3         | 340                 | 24                     |
| IN     | 4         | 356                 | 22                     |
| IN     | 5         | 371                 | 20                     |
| IN     | 6         | 384                 | 20                     |
| IN     | 7         | 397                 | 20                     |
| IN     | 8         | 409                 | 20                     |
| IN     | 9         | 423                 | 20                     |
| IN     | 10        | 437                 | 22                     |
| IN     | 11        | 454                 | 24                     |
| IN     | 12        | 476                 | 28                     |
| IN     | 13        | 510                 | 36                     |
| IN     | 14        | 563                 | 44                     |
| IN     | 15        | 650 <sup>b</sup>    | 52                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.46 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 6 Form B**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 44                     |
| GR     | 1         | 270                 | 32                     |
| GR     | 2         | 295                 | 24                     |
| GR     | 3         | 311                 | 21                     |
| GR     | 4         | 325                 | 19                     |
| GR     | 5         | 336                 | 18                     |
| GR     | 6         | 347                 | 18                     |
| GR     | 7         | 357                 | 18                     |
| GR     | 8         | 367                 | 18                     |
| GR     | 9         | 378                 | 18                     |
| GR     | 10        | 389                 | 19                     |
| GR     | 11        | 401                 | 20                     |
| GR     | 12        | 415                 | 21                     |
| GR     | 13        | 432                 | 25                     |
| GR     | 14        | 458                 | 33                     |
| GR     | 15        | 650 <sup>b</sup>    | 45                     |
| LI     | 0         | 240 <sup>a</sup>    | 45                     |
| LI     | 1         | 292                 | 33                     |
| LI     | 2         | 320                 | 25                     |
| LI     | 3         | 338                 | 22                     |
| LI     | 4         | 352                 | 20                     |
| LI     | 5         | 365                 | 19                     |
| LI     | 6         | 377                 | 19                     |
| LI     | 7         | 388                 | 19                     |
| LI     | 8         | 400                 | 19                     |
| LI     | 9         | 412                 | 20                     |
| LI     | 10        | 426                 | 21                     |
| LI     | 11        | 442                 | 24                     |
| LI     | 12        | 465                 | 29                     |
| LI     | 13        | 501                 | 37                     |
| LI     | 14        | 550                 | 40                     |
| LI     | 15        | 650 <sup>b</sup>    | 49                     |
| IN     | 0         | 240 <sup>a</sup>    | 45                     |
| IN     | 1         | 298                 | 33                     |
| IN     | 2         | 325                 | 26                     |
| IN     | 3         | 344                 | 22                     |
| IN     | 4         | 359                 | 21                     |
| IN     | 5         | 372                 | 20                     |
| IN     | 6         | 385                 | 19                     |
| IN     | 7         | 397                 | 19                     |
| IN     | 8         | 409                 | 19                     |
| IN     | 9         | 422                 | 20                     |
| IN     | 10        | 436                 | 21                     |
| IN     | 11        | 453                 | 24                     |
| IN     | 12        | 476                 | 30                     |
| IN     | 13        | 514                 | 39                     |
| IN     | 14        | 567                 | 41                     |
| IN     | 15        | 650 <sup>b</sup>    | 50                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.47 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 7 Form A**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 46                  |
| 1         | 242              | 33                  |
| 2         | 266              | 24                  |
| 3         | 280              | 20                  |
| 4         | 291              | 18                  |
| 5         | 300              | 16                  |
| 6         | 308              | 15                  |
| 7         | 314              | 14                  |
| 8         | 320              | 13                  |
| 9         | 326              | 13                  |
| 10        | 331              | 13                  |
| 11        | 335              | 12                  |
| 12        | 340              | 12                  |
| 13        | 344              | 12                  |
| 14        | 349              | 11                  |
| 15        | 353              | 11                  |
| 16        | 357              | 11                  |
| 17        | 361              | 11                  |
| 18        | 364              | 11                  |
| 19        | 368              | 11                  |
| 20        | 372              | 11                  |
| 21        | 376              | 11                  |
| 22        | 379              | 11                  |
| 23        | 383              | 11                  |
| 24        | 387              | 11                  |
| 25        | 391              | 11                  |
| 26        | 395              | 11                  |
| 27        | 399              | 11                  |
| 28        | 403              | 12                  |
| 29        | 407              | 12                  |
| 30        | 412              | 12                  |
| 31        | 416              | 12                  |
| 32        | 421              | 13                  |
| 33        | 427              | 13                  |
| 34        | 432              | 14                  |
| 35        | 439              | 15                  |
| 36        | 446              | 16                  |
| 37        | 454              | 17                  |
| 38        | 464              | 19                  |
| 39        | 476              | 21                  |
| 40        | 492              | 24                  |
| 41        | 513              | 27                  |
| 42        | 538              | 29                  |
| 43        | 565              | 30                  |
| 44        | 599              | 37                  |
| 45        | 650 <sup>b</sup> | 48                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.48 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 7 Form B**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 46                  |
| 1         | 241              | 33                  |
| 2         | 264              | 24                  |
| 3         | 279              | 20                  |
| 4         | 290              | 18                  |
| 5         | 299              | 16                  |
| 6         | 307              | 15                  |
| 7         | 313              | 14                  |
| 8         | 319              | 14                  |
| 9         | 325              | 13                  |
| 10        | 330              | 13                  |
| 11        | 335              | 12                  |
| 12        | 339              | 12                  |
| 13        | 344              | 12                  |
| 14        | 348              | 12                  |
| 15        | 352              | 11                  |
| 16        | 356              | 11                  |
| 17        | 360              | 11                  |
| 18        | 364              | 11                  |
| 19        | 368              | 11                  |
| 20        | 371              | 11                  |
| 21        | 375              | 11                  |
| 22        | 379              | 11                  |
| 23        | 383              | 11                  |
| 24        | 386              | 11                  |
| 25        | 390              | 11                  |
| 26        | 394              | 11                  |
| 27        | 398              | 11                  |
| 28        | 402              | 11                  |
| 29        | 406              | 12                  |
| 30        | 411              | 12                  |
| 31        | 415              | 12                  |
| 32        | 420              | 13                  |
| 33        | 425              | 13                  |
| 34        | 431              | 14                  |
| 35        | 437              | 14                  |
| 36        | 444              | 15                  |
| 37        | 452              | 16                  |
| 38        | 461              | 18                  |
| 39        | 472              | 20                  |
| 40        | 485              | 22                  |
| 41        | 502              | 24                  |
| 42        | 523              | 27                  |
| 43        | 547              | 29                  |
| 44        | 579              | 36                  |
| 45        | 650 <sup>b</sup> | 48                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.



**Table 4.49 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 7 Form A**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 46                     |
| GR     | 1         | 265                 | 34                     |
| GR     | 2         | 291                 | 25                     |
| GR     | 3         | 308                 | 22                     |
| GR     | 4         | 322                 | 20                     |
| GR     | 5         | 333                 | 19                     |
| GR     | 6         | 344                 | 18                     |
| GR     | 7         | 354                 | 18                     |
| GR     | 8         | 365                 | 18                     |
| GR     | 9         | 375                 | 18                     |
| GR     | 10        | 386                 | 19                     |
| GR     | 11        | 397                 | 20                     |
| GR     | 12        | 411                 | 22                     |
| GR     | 13        | 428                 | 25                     |
| GR     | 14        | 454                 | 34                     |
| GR     | 15        | 650 <sup>b</sup>    | 46                     |
| LI     | 0         | 240 <sup>a</sup>    | 47                     |
| LI     | 1         | 290                 | 34                     |
| LI     | 2         | 317                 | 26                     |
| LI     | 3         | 335                 | 22                     |
| LI     | 4         | 349                 | 21                     |
| LI     | 5         | 361                 | 20                     |
| LI     | 6         | 373                 | 19                     |
| LI     | 7         | 385                 | 19                     |
| LI     | 8         | 397                 | 20                     |
| LI     | 9         | 410                 | 21                     |
| LI     | 10        | 425                 | 23                     |
| LI     | 11        | 444                 | 26                     |
| LI     | 12        | 469                 | 32                     |
| LI     | 13        | 512                 | 41                     |
| LI     | 14        | 568                 | 43                     |
| LI     | 15        | 650 <sup>b</sup>    | 51                     |
| IN     | 0         | 240 <sup>a</sup>    | 48                     |
| IN     | 1         | 292                 | 35                     |
| IN     | 2         | 321                 | 26                     |
| IN     | 3         | 340                 | 23                     |
| IN     | 4         | 354                 | 21                     |
| IN     | 5         | 367                 | 20                     |
| IN     | 6         | 379                 | 19                     |
| IN     | 7         | 390                 | 19                     |
| IN     | 8         | 402                 | 19                     |
| IN     | 9         | 414                 | 20                     |
| IN     | 10        | 427                 | 21                     |
| IN     | 11        | 443                 | 24                     |
| IN     | 12        | 466                 | 30                     |
| IN     | 13        | 504                 | 40                     |
| IN     | 14        | 560                 | 44                     |
| IN     | 15        | 650 <sup>b</sup>    | 53                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.50 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 7 Form B**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 46                     |
| GR     | 1         | 265                 | 34                     |
| GR     | 2         | 291                 | 25                     |
| GR     | 3         | 308                 | 22                     |
| GR     | 4         | 322                 | 20                     |
| GR     | 5         | 333                 | 19                     |
| GR     | 6         | 344                 | 18                     |
| GR     | 7         | 354                 | 18                     |
| GR     | 8         | 365                 | 18                     |
| GR     | 9         | 375                 | 18                     |
| GR     | 10        | 386                 | 19                     |
| GR     | 11        | 397                 | 20                     |
| GR     | 12        | 411                 | 22                     |
| GR     | 13        | 428                 | 25                     |
| GR     | 14        | 454                 | 34                     |
| GR     | 15        | 650 <sup>b</sup>    | 46                     |
| LI     | 0         | 240 <sup>a</sup>    | 47                     |
| LI     | 1         | 292                 | 35                     |
| LI     | 2         | 320                 | 26                     |
| LI     | 3         | 339                 | 23                     |
| LI     | 4         | 354                 | 21                     |
| LI     | 5         | 367                 | 20                     |
| LI     | 6         | 379                 | 19                     |
| LI     | 7         | 391                 | 19                     |
| LI     | 8         | 403                 | 20                     |
| LI     | 9         | 415                 | 20                     |
| LI     | 10        | 429                 | 22                     |
| LI     | 11        | 446                 | 25                     |
| LI     | 12        | 469                 | 30                     |
| LI     | 13        | 504                 | 37                     |
| LI     | 14        | 553                 | 42                     |
| LI     | 15        | 650 <sup>b</sup>    | 51                     |
| IN     | 0         | 240 <sup>a</sup>    | 48                     |
| IN     | 1         | 286                 | 35                     |
| IN     | 2         | 314                 | 26                     |
| IN     | 3         | 333                 | 23                     |
| IN     | 4         | 347                 | 21                     |
| IN     | 5         | 360                 | 19                     |
| IN     | 6         | 371                 | 19                     |
| IN     | 7         | 383                 | 19                     |
| IN     | 8         | 394                 | 19                     |
| IN     | 9         | 406                 | 20                     |
| IN     | 10        | 419                 | 21                     |
| IN     | 11        | 435                 | 24                     |
| IN     | 12        | 457                 | 29                     |
| IN     | 13        | 490                 | 36                     |
| IN     | 14        | 537                 | 41                     |
| IN     | 15        | 650 <sup>b</sup>    | 51                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.51 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 8 Form A**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 44                  |
| 1         | 244              | 31                  |
| 2         | 267              | 23                  |
| 3         | 282              | 19                  |
| 4         | 293              | 17                  |
| 5         | 301              | 16                  |
| 6         | 309              | 15                  |
| 7         | 316              | 14                  |
| 8         | 322              | 13                  |
| 9         | 327              | 13                  |
| 10        | 332              | 12                  |
| 11        | 337              | 12                  |
| 12        | 342              | 12                  |
| 13        | 346              | 11                  |
| 14        | 350              | 11                  |
| 15        | 354              | 11                  |
| 16        | 358              | 11                  |
| 17        | 362              | 11                  |
| 18        | 366              | 11                  |
| 19        | 369              | 11                  |
| 20        | 373              | 11                  |
| 21        | 377              | 11                  |
| 22        | 380              | 11                  |
| 23        | 384              | 11                  |
| 24        | 388              | 11                  |
| 25        | 392              | 11                  |
| 26        | 395              | 11                  |
| 27        | 399              | 11                  |
| 28        | 403              | 11                  |
| 29        | 407              | 11                  |
| 30        | 411              | 11                  |
| 31        | 416              | 12                  |
| 32        | 421              | 12                  |
| 33        | 426              | 13                  |
| 34        | 431              | 13                  |
| 35        | 437              | 14                  |
| 36        | 443              | 15                  |
| 37        | 451              | 16                  |
| 38        | 460              | 17                  |
| 39        | 471              | 19                  |
| 40        | 485              | 22                  |
| 41        | 502              | 25                  |
| 42        | 524              | 26                  |
| 43        | 549              | 28                  |
| 44        | 580              | 35                  |
| 45        | 650 <sup>b</sup> | 46                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.52 The 2010 MSA-Math Total Raw Score to Scale Score Conversion Table: Grade 8 Form B**

| Raw Score | Scale Score (SS) | Standard Error (SE) |
|-----------|------------------|---------------------|
| 0         | 240 <sup>a</sup> | 44                  |
| 1         | 242              | 32                  |
| 2         | 266              | 23                  |
| 3         | 281              | 20                  |
| 4         | 292              | 17                  |
| 5         | 301              | 16                  |
| 6         | 309              | 15                  |
| 7         | 316              | 14                  |
| 8         | 322              | 13                  |
| 9         | 327              | 13                  |
| 10        | 332              | 12                  |
| 11        | 337              | 12                  |
| 12        | 342              | 12                  |
| 13        | 346              | 11                  |
| 14        | 350              | 11                  |
| 15        | 354              | 11                  |
| 16        | 358              | 11                  |
| 17        | 362              | 11                  |
| 18        | 366              | 11                  |
| 19        | 369              | 11                  |
| 20        | 373              | 10                  |
| 21        | 377              | 10                  |
| 22        | 380              | 10                  |
| 23        | 384              | 10                  |
| 24        | 387              | 11                  |
| 25        | 391              | 11                  |
| 26        | 395              | 11                  |
| 27        | 399              | 11                  |
| 28        | 403              | 11                  |
| 29        | 407              | 11                  |
| 30        | 411              | 11                  |
| 31        | 415              | 12                  |
| 32        | 420              | 12                  |
| 33        | 425              | 12                  |
| 34        | 430              | 13                  |
| 35        | 436              | 14                  |
| 36        | 443              | 15                  |
| 37        | 450              | 16                  |
| 38        | 459              | 17                  |
| 39        | 469              | 19                  |
| 40        | 482              | 21                  |
| 41        | 499              | 24                  |
| 42        | 520              | 26                  |
| 43        | 544              | 28                  |
| 44        | 575              | 35                  |
| 45        | 650 <sup>b</sup> | 46                  |

Note. <sup>a</sup>LOSS was set to 240.

Note. <sup>b</sup>HOSS was set to 650.

**Table 4.53 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 8 Form A**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 45                     |
| GR     | 1         | 272                 | 32                     |
| GR     | 2         | 298                 | 24                     |
| GR     | 3         | 314                 | 21                     |
| GR     | 4         | 327                 | 19                     |
| GR     | 5         | 338                 | 18                     |
| GR     | 6         | 348                 | 17                     |
| GR     | 7         | 358                 | 17                     |
| GR     | 8         | 367                 | 17                     |
| GR     | 9         | 376                 | 17                     |
| GR     | 10        | 385                 | 17                     |
| GR     | 11        | 395                 | 18                     |
| GR     | 12        | 406                 | 19                     |
| GR     | 13        | 418                 | 20                     |
| GR     | 14        | 434                 | 24                     |
| GR     | 15        | 459                 | 32                     |
| GR     | 16        | 650 <sup>b</sup>    | 44                     |
| LI     | 0         | 240 <sup>a</sup>    | 46                     |
| LI     | 1         | 286                 | 34                     |
| LI     | 2         | 315                 | 26                     |
| LI     | 3         | 335                 | 23                     |
| LI     | 4         | 351                 | 21                     |
| LI     | 5         | 365                 | 20                     |
| LI     | 6         | 378                 | 20                     |
| LI     | 7         | 390                 | 19                     |
| LI     | 8         | 403                 | 20                     |
| LI     | 9         | 417                 | 21                     |
| LI     | 10        | 433                 | 24                     |
| LI     | 11        | 456                 | 29                     |
| LI     | 12        | 495                 | 39                     |
| LI     | 13        | 546                 | 41                     |
| LI     | 14        | 650 <sup>b</sup>    | 49                     |
| IN     | 0         | 240 <sup>a</sup>    | 46                     |
| IN     | 1         | 289                 | 34                     |
| IN     | 2         | 318                 | 26                     |
| IN     | 3         | 337                 | 22                     |
| IN     | 4         | 352                 | 21                     |
| IN     | 5         | 365                 | 20                     |
| IN     | 6         | 377                 | 19                     |
| IN     | 7         | 389                 | 19                     |
| IN     | 8         | 401                 | 19                     |
| IN     | 9         | 413                 | 20                     |
| IN     | 10        | 426                 | 21                     |
| IN     | 11        | 442                 | 23                     |
| IN     | 12        | 464                 | 28                     |
| IN     | 13        | 498                 | 36                     |
| IN     | 14        | 548                 | 42                     |
| IN     | 15        | 650 <sup>b</sup>    | 50                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational

**Table 4.54 The 2010 MSA-Reading Subtotal Raw Score to Scale Score Conversion Table: Grade 8 Form B**

| Strand | Raw Score | Scale Score<br>(SS) | Standard Error<br>(SE) |
|--------|-----------|---------------------|------------------------|
| GR     | 0         | 240 <sup>a</sup>    | 45                     |
| GR     | 1         | 272                 | 32                     |
| GR     | 2         | 298                 | 24                     |
| GR     | 3         | 314                 | 21                     |
| GR     | 4         | 327                 | 19                     |
| GR     | 5         | 338                 | 18                     |
| GR     | 6         | 348                 | 17                     |
| GR     | 7         | 358                 | 17                     |
| GR     | 8         | 367                 | 17                     |
| GR     | 9         | 376                 | 17                     |
| GR     | 10        | 385                 | 17                     |
| GR     | 11        | 395                 | 18                     |
| GR     | 12        | 406                 | 19                     |
| GR     | 13        | 418                 | 20                     |
| GR     | 14        | 434                 | 24                     |
| GR     | 15        | 459                 | 32                     |
| GR     | 16        | 650 <sup>b</sup>    | 44                     |
| LI     | 0         | 240 <sup>a</sup>    | 46                     |
| LI     | 1         | 295                 | 34                     |
| LI     | 2         | 323                 | 26                     |
| LI     | 3         | 341                 | 22                     |
| LI     | 4         | 356                 | 20                     |
| LI     | 5         | 369                 | 19                     |
| LI     | 6         | 381                 | 19                     |
| LI     | 7         | 393                 | 19                     |
| LI     | 8         | 406                 | 20                     |
| LI     | 9         | 420                 | 21                     |
| LI     | 10        | 436                 | 24                     |
| LI     | 11        | 459                 | 30                     |
| LI     | 12        | 499                 | 39                     |
| LI     | 13        | 553                 | 41                     |
| LI     | 14        | 650 <sup>b</sup>    | 49                     |
| IN     | 0         | 240 <sup>a</sup>    | 47                     |
| IN     | 1         | 279                 | 36                     |
| IN     | 2         | 310                 | 27                     |
| IN     | 3         | 331                 | 23                     |
| IN     | 4         | 347                 | 21                     |
| IN     | 5         | 361                 | 20                     |
| IN     | 6         | 373                 | 19                     |
| IN     | 7         | 384                 | 19                     |
| IN     | 8         | 396                 | 19                     |
| IN     | 9         | 408                 | 20                     |
| IN     | 10        | 422                 | 21                     |
| IN     | 11        | 437                 | 23                     |
| IN     | 12        | 458                 | 27                     |
| IN     | 13        | 488                 | 33                     |
| IN     | 14        | 531                 | 39                     |
| IN     | 15        | 650 <sup>b</sup>    | 49                     |

Note. <sup>a</sup>LOSS was set to 240. <sup>b</sup>HOSS was set to 650.

Note. GR= General Reading, LI=Literary, IN=Informational