Testing Brief<br>National Assessment of Educational Progress (NAEP) - Mathematics January 26 - March 6, 2015

The Nation's Report Card, the National Assessment of Educational Progress (NAEP), is a nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, history, geography, and other fields. By making objective information on student performance available to policymakers at the national, state, and local levels, NAEP is an integral part of our nation's evaluation of the condition and progress of education. Only information related to academic achievement is collected under this program. NAEP guarantees the privacy of individual students and their families. This report provides selected NAEP results for Georgia's public school students in mathematics at grades 4 and 8. Student performance is reported as an average score based on the NAEP mathematics scale, which ranges from 0 to 500. Beginning in 1990, mathematics has been assessed in eleven different years at the state level (at grade 8 in 1990, and at both grades 4 and 8 in 1992, 1996, 2000, 2003, 2005, 2007, 2009, 2011, 2013 and 2015). This report presents results from 2000 to 2015.

## Key Findings in Mathematics

## Grade 4

- The average mathematics scale score for students in Georgia was 236. This was significantly different from the score in 2013 (240), but not from the score in 2011 (238).
- Georgia's average scale score in 2015 (236) was significantly different than that of the nation's public schools (240).
- The average mathematics scale score for White students in Georgia decreased five (5) points from 2013 (250) to 2015 (245). The average scale score for Black students decreased two (2) points from 2013 (226) to 2015 (224). The average scale score for Hispanic students decreased one (1) point from 2013 (235) to 2015 (234). Scale score changes for these race/ethnic groups were not statistically significant.
- The average mathematics scale score for students who were eligible for the National School Lunch (NSL) Program was 230 in 2013 and 228 in 2015, a two (2) point decrease.
- In 2015, the percentage of students in Georgia who performed at or above Basic was 78 percent. This was not significantly different from 2013 (81 percent) or 2011 ( 80 percent).
- The percentage of students in Georgia who performed at or above Basic (78 percent) was significantly different than that of students in the nation's public schools (81 percent).
- In 2015, the percentage of students in Georgia who performed at or above Proficient was 35 percent. This was significantly different from 2013 ( 39 percent), but was not significantly different from 2011 (37 percent).
- The percentage of students in Georgia who performed at or above Proficient ( 35 percent) was significantly different than that of students in the nation's public schools ( 39 percent).
- In 2015, the percentage of students in Georgia who performed at Advanced was 5 percent. This was not significantly different from 2013 (7 percent) or 2011 (6 percent).
- The percentage of students in Georgia who performed at Advanced was 5 percent while the percentage for the nation's public schools was 7 percent.


## Key Findings in Mathematics

## Grade 8

- The average mathematics scale score for students in Georgia was 279 , and was not significantly different from that in 2013 (279) or 2011 (278).
- Georgia's average scale score (279) was significantly different than for the nation's public schools (281).
- The average mathematics scale score for White students in Georgia decreased one (1) point from 2013 (292) to 2015 (291). The average scale score for Black students increased two (2) points from 2013 (262) to 2015 (264). The average scale score for Hispanic students decreased six (6) points from 2013 (276) to 2015 (270). Scale score changes for these race/ethnic groups were not statistically significant.
- The average mathematics scale score for students who were eligible for the National School Lunch (NSL) Program in Georgia was unchanged at 267 from 2013 to 2015.
- In 2015, the percentage of students in Georgia who performed at or above Basic was 67 percent. This was not significantly different from 2013 ( 68 percent) or 2011 ( 68 percent).
- The percentage of students in Georgia who performed at or above Basic ( 67 percent) was significantly different than the percentage for the nation's public schools ( 70 percent).
- In 2015, the percentage of students in Georgia who performed at or above Proficient was 28 percent. This was not significantly different from 2013 (29 percent) or 2011 (28 percent).
- The percentage of students in Georgia who performed at or above Proficient ( 28 percent) was significantly different than the percentage for the nation's public schools ( 32 percent).
- In 2015, the percentage of students in Georgia who performed at Advanced was 7 percent. This was not significantly different from 2013 (7 percent) or 2011 ( 6 percent).
- The percentage of students in Georgia who performed at Advanced was 7 percent while the percentage for the nation's public schools was 8 percent.

Table 1: Average Scale Scores - NAEP Grade 4 Mathematics 2000-2015

| Average Scale Scores |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 5}$ | Change <br> $\mathbf{2 0 0 0}$ <br> $\mathbf{2 0 1 5}$ |
| All Students | $219^{*}$ | $230^{*}$ | 234 | 235 | 236 | 238 | $240^{*}$ | 236 | +17 |
| White | $230^{*}$ | 241 | 243 | 246 | 247 | 249 | 250 | 245 | +15 |
| Black | $204^{*}$ | $217^{*}$ | 221 | 222 | 221 | 224 | 226 | 224 | +20 |
| Hispanic | $217^{*}$ | $219^{*}$ | 229 | 229 | 231 | 233 | 235 | 234 | +17 |
| Asian | N/A | 248 | 255 | 255 | 256 | 263 | 263 | 260 | $+12^{* *}$ |
| Male | $220^{*}$ | $231^{*}$ | 234 | 236 | 237 | 238 | 241 | 237 | +17 |
| Female | $218^{*}$ | $229^{*}$ | 233 | 234 | 236 | $239^{*}$ | $239^{*}$ | 236 | +18 |
| FRL (NSL) | $204^{*}$ | $219^{*}$ | $224^{*}$ | $224^{*}$ | 225 | 227 | 230 | 228 | +24 |
| Students with Disabilities | $196^{*}$ | 209 | 218 | 219 | 215 | 214 | 216 | 214 | +18 |
| English Learner | N/A | 208 | 208 | 212 | 220 | 219 | 217 | 216 | $+8^{* *}$ |

*Value is significantly different from the 2015 value.
N/A - Reporting standards for sample size not met.
**Due to N/A, change reported for years other than 2000-2015.

Figure 1: Average Scale Scores - NAEP Grade 4 Mathematics 2000-2015
NAEP Grade 4: Math Average Scale Scores


Table 2: Achievement Level - Percent At or Above Basic on NAEP Grade 4 Mathematics 2000-2015

| Percent At or Above Basic |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 5}$ | Change <br> $\mathbf{2 0 0 0 -}$ <br> $\mathbf{2 0 1 5}$ |
| All Students | $57^{*}$ | $72^{*}$ | 76 | 79 | 78 | 80 | 81 | 78 | +21 |
| White | $73^{*}$ | 84 | 87 | 90 | 90 | 91 | 91 | 88 | +15 |
| Black | $36^{*}$ | 56 | 61 | 64 | 62 | 65 | 68 | 64 | +28 |
| Hispanic | $58^{*}$ | 60 | 73 | 75 | 75 | 76 | 77 | 76 | +18 |
| Asian | N/A | 87 | 95 | 90 | 93 | 94 | 95 | 94 | $+7^{* *}$ |
| Male | $59^{*}$ | $72^{*}$ | 76 | 79 | 77 | 78 | 81 | 77 | +18 |
| Female | $55^{*}$ | $71^{*}$ | 76 | 78 | 79 | 81 | 81 | 78 | +23 |
| FRL (NSL) | $36^{*}$ | $59^{*}$ | 65 | 68 | 68 | 70 | 73 | 69 | +33 |
| Students with Disabilities | $32^{*}$ | 43 | 54 | 58 | 53 | 49 | 53 | 49 | +17 |
| English Learner | N/A | 41 | 42 | 51 | 59 | 56 | 54 | 53 | $+12^{* *}$ |

*Value is significantly different from the 2015 value.
N/A - Reporting standards for sample size not met.
**Due to N/A, change reported for years other than 2000-2015.

Figure 2: Percent At or Above Basic - NAEP Grade 4 Mathematics 2000-2015
NAEP Grade 4 Math: Percent At or Above Basic


Table 3: Achievement Level - Percent At or Above Proficient in NAEP Grade 4 Mathematics 2000-2015

| Percent At or Above Proficient |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 5}$ | Change <br> $\mathbf{2 0 0 0}$ <br> $\mathbf{2 0 1 5}$ |
| All Students | $17^{*}$ | $22^{*}$ | $30^{*}$ | 32 | 34 | 37 | $39^{*}$ | 35 | +18 |
| White | $27^{*}$ | 40 | 43 | 46 | 48 | 51 | 53 | 47 | +20 |
| Black | $5^{*}$ | $11^{*}$ | 12 | 13 | 15 | 18 | 20 | 19 | +14 |
| Hispanic | $12^{*}$ | $13^{*}$ | 22 | 20 | 26 | 29 | 33 | 28 | +16 |
| Asian | N/A | 53 | 57 | 63 | 60 | 70 | 71 | 65 | $+12^{* *}$ |
| Male | $19^{*}$ | $29^{*}$ | 30 | 33 | 35 | 37 | 40 | 36 | +17 |
| Female | $16^{*}$ | $25^{*}$ | 29 | 30 | 32 | 37 | 38 | 33 | +17 |
| FRL (NSL) | $5^{*}$ | $12^{*}$ | $16^{*}$ | $16^{*}$ | 19 | 21 | 25 | 23 | +18 |
| Students with Disabilities | $4^{*}$ | 11 | 15 | 18 | 13 | 14 | 16 | 14 | +10 |
| English Learner | N/A | 8 | 4 | 5 | 14 | 13 | 11 | 6 | $-2^{* *}$ |

*Value is significantly different from the 2015 value.
N/A - Reporting standards for sample size not met.
**Due to N/A, change reported for years other than 2000-2015.

Figure 3: Percent At or Above Proficient - NAEP Grade 4 Mathematics 2000-2015

NAEP Grade 4 Math: Percent At or Above Proficient


Table 4: Average Scale Scores - NAEP Grade 8 Mathematics 2000-2015

| Average Scale Scores |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 5}$ | Change <br> $\mathbf{2 0 0 0 -}$ <br> $\mathbf{2 0 1 5}$ |
| All Students | $265^{*}$ | $270^{*}$ | $272^{*}$ | $275^{*}$ | 278 | 278 | 279 | 279 | +14 |
| White | $279^{*}$ | $284^{*}$ | $284^{*}$ | 288 | 289 | 291 | 292 | 291 | +12 |
| Black | $244^{*}$ | $250^{*}$ | $255^{*}$ | 261 | 262 | 262 | 262 | 264 | +20 |
| Hispanic | N/A | 262 | $258^{*}$ | 266 | 270 | 277 | 276 | 270 | $+8^{* *}$ |
| Asian | N/A | $286^{*}$ | $301^{*}$ | N/A | 300 | 302 | 310 | 317 | $+31^{* *}$ |
| Male | $265^{*}$ | $270^{*}$ | $273^{*}$ | 275 | 277 | 279 | 279 | 279 | +14 |
| Female | $265^{*}$ | $269^{*}$ | $272^{*}$ | $274^{*}$ | 278 | 278 | 279 | 279 | +14 |
| FRL (NSL) | $246^{*}$ | $253^{*}$ | $257^{*}$ | $262^{*}$ | 265 | 267 | 267 | 267 | +21 |
| Students with Disabilities | $232^{*}$ | $234^{*}$ | 241 | 246 | 245 | 244 | 244 | 245 | +13 |
| English Learner | N/A | 239 | 242 | 237 | N/A | 245 | 239 | 242 | $+3^{* *}$ |

*Value is significantly different from the 2015 value.
N/A - Reporting standards for sample size not met.
**Due to N/A, change reported for years other than 2000-2015.

Figure 4: Average Scale Scores - NAEP Grade 8 Mathematics 2000-2015


Table 5: Achievement Level - Percent At or Above Basic on NAEP Grade 8 Mathematics 2000-2015

| Percent At or Above Basic |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 5}$ | Change <br> $\mathbf{2 0 0 0 -}$ <br> $\mathbf{2 0 1 5}$ |
| All Students | $54^{*}$ | $59^{*}$ | $62^{*}$ | 64 | 67 | 68 | 68 | 67 | +13 |
| White | $71^{*}$ | 77 | 76 | 80 | 80 | 82 | 81 | 81 | +10 |
| Black | $28^{*}$ | $36^{*}$ | $43^{*}$ | 48 | 50 | 51 | 51 | 52 | +24 |
| Hispanic | N/A | 49 | $48^{*}$ | 55 | 59 | 69 | 67 | 60 | $+11^{* *}$ |
| Asian | N/A | 73 | 84 | N/A | 86 | 88 | 86 | 90 | $+17^{* *}$ |
| Male | $55^{*}$ | $60^{*}$ | 62 | 64 | 65 | 67 | 68 | 67 | +12 |
| Female | $54^{*}$ | $59^{*}$ | $62^{*}$ | 64 | 68 | 70 | 68 | 67 | +13 |
| FRL (NSL) | $30^{*}$ | $39^{*}$ | $44^{*}$ | $49^{*}$ | 53 | 58 | 57 | 57 | +27 |
| Students with Disabilities | 26 | 24 | 29 | 34 | 28 | 30 | 30 | 29 | +3 |
| English Learner | N/A | 25 | 27 | 20 | N/A | 28 | 22 | 26 | $+1^{* *}$ |

*Value is significantly different from the 2015 value.
N/A - Reporting standards for sample size not met.
**Due to N/A, change reported for years other than 2000-2015.

Figure 5: Percent At or Above Basic - NAEP Grade 8 Mathematics 2000-2015


Table 6: Achievement Level - Percent At or Above Proficient on NAEP Grade 8 Mathematics 2000-2015

| Percent At or Above Proficient |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 5}$ | Change <br> $\mathbf{2 0 0 0 -}$ <br> $\mathbf{2 0 1 5}$ |
| All Students | $19^{*}$ | $22^{*}$ | $23^{*}$ | $25^{*}$ | 27 | 28 | 29 | 28 | +9 |
| White | $27^{*}$ | $32^{*}$ | $34^{*}$ | 37 | 39 | 40 | 42 | 41 | +14 |
| Black | $4^{*}$ | $7^{*}$ | $8^{*}$ | 11 | 11 | 12 | 12 | 13 | +9 |
| Hispanic | N/A | 14 | 12 | 16 | 18 | 25 | 24 | 19 | $+5^{* *}$ |
| Asian | N/A | $40^{*}$ | 52 | N/A | 49 | 52 | 62 | 68 | $+28^{* *}$ |
| Male | $19^{*}$ | $24^{*}$ | $24^{*}$ | 26 | 27 | 29 | 30 | 29 | +10 |
| Female | $18^{*}$ | $20^{*}$ | $23^{*}$ | $23^{*}$ | 27 | 27 | 29 | 28 | +10 |
| FRL (NSL) | $5^{*}$ | $8^{*}$ | $9^{*}$ | 12 | 13 | 16 | 17 | 15 | +10 |
| Students with Disabilities | 5 | 6 | 6 | 6 | 6 | 4 | 6 | 5 | 0 |
| English Learner | N/A | 4 | 10 | 1 | N/A | 6 | 4 | 4 | $0 * *$ |

*Value is significantly different from the 2015 value.
N/A - Reporting standards for sample size not met.
**Due to N/A, change reported for years other than 2000-2015.

Figure 6: Percent At or Above Proficient - NAEP Grade 8 Mathematics 2000-2015


