

# Massachusetts

| Reading                            | Equivalent NAEP grades tested by state in 2005   | Skills assessed       | AYP standard | Performance standards development                | Year standard adopted | Substantive changes to test since 2002-03 |
|------------------------------------|--|-----------------------|--------------|--|-----------------------|---|
|                                    | 4  | English language arts | Proficient   | Expert reviewers generate then educator approval | 2001                  | None                                      |
| State standards                    | Through the Massachusetts Comprehensive Assessment System (MCAS), the Commonwealth administered exams in grade 3 in reading, grades 4, 7, and 10 in English/language arts and grades 4, 6, 8, and 10 in mathematics. Massachusetts used four achievement levels for reporting purposes: warning, needs improvement, proficient, and advanced.  |                       |              |  |                       |   |
| State performance standard for AYP | <p><b>Grade 4.</b> On MCAS, a grade 4 student at the proficient level demonstrates solid knowledge of common prefixes, Greek and Latin roots, figurative phrases, words with multiple meanings, dictionary skills, antonyms, synonyms, homophones and context clues to derive meaning of unfamiliar words in text; demonstrates and uses solid knowledge of parts of speech, correct mechanics and other grammatical conventions; demonstrates solid understanding of basic facts and main idea(s) in literary and non-literary texts; makes solid comparison between/within texts; demonstrates solid understanding of actions and motivations of characters in literary texts; demonstrates solid awareness of textual and graphic features, organizational structures, and characteristics of literary and non-literary texts; and demonstrates solid understanding of direct comparisons or how an author’s choice of words appeals to the senses. A proficient student writes compositions with solid focus and development of ideas, and supporting detail, and with solid control of the standard English conventions of sentence structure, grammar and usage, spelling and punctuation. The preceding list includes selected descriptors and is not exhaustive.</p> |                       |              |  |                       |   |

# Massachusetts

## Reading

| 2005 NAEP scale equivalent |   |                |                             |  |                       | 2005 NAEP exclusion rates       |                            |   |
|----------------------------|---|----------------|-----------------------------|--|-----------------------|---------------------------------|----------------------------|---|
| Grade                      | NAEP equivalent at the state standard for AYP             | Standard error | Relative error <sup>1</sup> | Correlation between NAEP and state results |                       | English language learners (ELL) | Students with disabilities | Students who are both ELL and with disabilities |
|                            |   |                |                             | Unadjusted                                 | Adjusted <sup>2</sup> |                                 |                            |   |
| 4                          | 234   | 0.8            | 1.2                         | 0.78                                       | 0.96                  | 0.9                             | 6.1                        | 1.1   |
| 8                          | English language arts was not assessed at grade 8 in 2005 |                |                             |  |                       | 0.7                             | 5.2                        | 0.7   |

- 1 Relative error provides a measure of how well the state's standard for AYP maps to the NAEP scale. Values of 1.5 or higher indicate poor mapping of school-level results and comparisons between NAEP and state assessments should be made with caution.
- 2 Estimate of what the correlation between NAEP and state assessment school-level percentages meeting primary state standards would have been if it were based on a standard set at the student population median and with no school samples having fewer than 30 students.

### State accommodations not allowed on NAEP

Amplification equipment, noise buffer, tape recorder, multiple sessions, taking the test at a time beneficial to the student, and study carrel. The following are considered non-standard on the ELA Language and Literature/ELA Reading/ELA Composition tests: Reading questions aloud, spell checker/assistance, and speech/text device.

# Massachusetts

| Mathematics                        | Equivalent NAEP grades tested by state in 2005   | Skills assessed | AYP standard | Performance standards development | Year standard adopted | Substantive changes to test since 2002-03 |
|------------------------------------|--|-----------------|--------------|-----------------------------------|-----------------------|---|
| State standards                    | Through the Massachusetts Comprehensive Assessment System (MCAS), the Commonwealth administered exams in grade 3 in reading, grades 4, 7, and 10 in English/language arts and grades 4, 6, 8, and 10 in mathematics. Massachusetts used four achievement levels for reporting purposes: warning, needs improvement, proficient, and advanced.  |                 |              |                                   |                       |   |
| State performance standard for AYP | <p><b>Grade 4.</b> On MCAS, a grade 4 student at the proficient level: reads, writes, and interprets different place value representations through hundred thousands; multiplies three-digit numbers by two-digit numbers and divides by single-digit numbers with remainders; applies basic operations to solve routine problems; identifies and determines equivalent fractions; verifies the reasonableness of solutions in addition, subtraction, multiplication, and division problems by using estimations; formulates rules and generalizations about number patterns; identifies figures by their properties (e.g., number of right angles, symmetry, number of faces, two or three dimensions); finds the perimeter, area, and volume of shapes using diagrams, models, and manipulatives; solves simple elapsed-time problems; organizes data and constructs displays (e.g., tables, charts, tallies, graphs); determines the chance that an event will occur in situations where events are not equally likely; and identifies all possible combinations with an organized strategy. Note that the preceding list includes selected descriptors and is not exhaustive.</p> <p><b>Grade 8.</b> On MCAS, a grade 8 student at the proficient level: computes ratios, proportions, and percents; uses relationships operations to estimate computations; solves linear equations with one variable; generates rules of general terms to describe numeric and geometric patterns; uses geometric formulas and characteristics of geometric figures to find unknown values (e.g., lengths, angles); applies the formulas for perimeter, area, and volume to solve problems; explains why and how much a change in a score will change the mean of a set of scores; and determines theoretical probabilities in given situations. Note that the preceding list includes selected descriptors and is not exhaustive.</p> |                 |              |                                   |                       |   |

# Massachusetts

## Mathematics

| 2005 NAEP scale equivalent |   |                |                             |  |                       | 2005 NAEP exclusion rates       |                            |   |  |
|----------------------------|---|----------------|-----------------------------|--|-----------------------|---------------------------------|----------------------------|---|--|
| Grade                      | NAEP equivalent at the state standard for AYP | Standard error | Relative error <sup>1</sup> | Correlation between NAEP and state results |                       | English language learners (ELL) | Students with disabilities | Students who are both ELL and with disabilities |  |
|                            |   |                |                             | Unadjusted                                 | Adjusted <sup>2</sup> |                                 |                            |   |  |
| 4                          | 255   | 1.0            | 1.2                         | 0.81                                       | 0.92                  | 0.8                             | 2.7                        | 0.5   |  |
| 8                          | 301   | 1.3            | 1.1                         | 0.87                                       | 0.90                  | 0.7                             | 5.2                        | 0.5   |  |

1 Relative error provides a measure of how well the state's standard for AYP maps to the NAEP scale. Values of 1.5 or higher indicate poor mapping of school-level results and comparisons between NAEP and state assessments should be made with caution.

2 Estimate of what the correlation between NAEP and state assessment school-level percentages meeting primary state standards would have been if it were based on a standard set at the student population median and with no school samples having fewer than 30 students.

### State accommodations not allowed on NAEP

Amplification equipment, noise buffer, abacus, arithmetic tables, manipulatives, tape recorder, multiple sessions, taking the test at a time beneficial to the student, carrel, calculator (considered non-standard if used on non-calculator sections of the Mathematics Test), spell checker/assistance, and speech/text device.