## Reading

> As the key that allows access to many forms of knowledge and information, reading literacy is a skill critical to learning. The NAEP reading assessment measures reading comprehension by asking students to read passages and answer questions about what they have read. In this way, it collects valuable information on the progress of literacy and provides a broad picture of what our nation's students are able to read and understand at specific grade levels.

## The Reading Framework

The NAEP reading framework serves as the blueprint for the assessment, specifying what should be assessed. Developed under the direction of the National Assessment Governing Board, the framework reflects ideas from a variety of organizations involved in reading education, including reading experts, school administrators, policymakers, teachers, parents, and others.

The current NAEP reading framework was first used to guide the development of the 1992 assessment and has continued to be used through 2007. Updates to the framework over the years have provided more detail regarding the assessment design but have not changed the content, allowing students' performance in 2007 to be compared with previous years. For more information
on the framework, see http://www.nagb.org/frameworks/ reading_07.pdf.

The framework provides a broad definition of reading that includes developing a general understanding of written text, interpreting texts, and using texts for different purposes. In addition, it views reading as an interactive and dynamic process involving the reader, the text, and the context of the reading experience.

Recognizing that readers vary in their approach to reading according to the demands of any particular text, the framework specifies that reading performance be measured for both reading contexts and aspects of reading. Three contexts for reading provide guidance for the types of texts included in the assessment. Four aspects of reading provide guidance for the types of questions that are asked about the texts.

## CONTEXTS FOR READING

Reading for literary experience includes exploring events, characters, themes, settings, plots, actions, and the language of literary works by reading novels, short stories, poems, plays, legends, biographies, myths, and folktales.

Reading for information involves reading materials such as magazines, newspapers, textbooks, essays, and speeches in order to better understand the world.

Reading to perform a task requires readers to apply what they learn from reading materials such as directions for repairs or games, classroom procedures, maps, and so on.

## Assessment Design

Because of the large number of questions and the variety of texts included in the NAEP reading assessment, each student took just a portion of the test, consisting of two 25 -minute sections or one 50 -minute section. Each section contained a reading passage and a set of related questions. The passages used in the assessment reflect those typically available to students, such as collections of stories, children's magazines, or informational books. Students were asked to respond to both multiple-choice and constructed-response (i.e., open-ended) questions.

Each question in the NAEP reading assessment measured one of the aspects of reading within the broader context for reading. All three contexts for reading are assessed at grade 8, but only two-reading for literary experience and reading for information - are assessed at grade 4 (table 3). At both grades, the framework recommends that the assessment time for each aspect of reading be distributed as shown in table 4.

Table 3. Percentage distribution of NAEP reading questions, by grade and context for reading: 2007

| Contexts for reading | Grade 4 | Grade 8 |
| :--- | :---: | :---: |
| Reading for literary experience | $51 \%$ | $36 \%$ |
| Reading for information | $49 \%$ | $40 \%$ |
| Reading to perform a task | $\dagger$ | $24 \%$ |

$\dagger$ Not applicable. Reading to perform a task was not assessed at grade 4. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

## ASPECTS OF READING

Forming a general understanding involves considering the text as a whole and having an overall understanding of it.

Developing interpretation requires extending initial impressions and linking information across parts of the text, as well as focusing on specific information.

Making reader/text connections includes linking information in the text with knowledge and experience and applying ideas to the real world.

Examining content and structure involves understanding and critically evaluating text content, features, or appropriateness.

Table 4. Target percentage of assessment time in NAEP reading, by grade and aspect of reading: 2007

| Aspects of reading | Grade 4 | Grade 8 |
| :--- | :---: | :---: |
| Forming a general understanding/ <br> Developing interpretation |  |  |
| Making reader/text connections | $60 \%$ | $55 \%$ |
| Examining content and structure | $15 \%$ | $15 \%$ |

${ }^{1}$ For the purpose of distribution by assessment time, forming a general understanding and developing interpretation were combined as per the specifications for the assessment.
SOURCE: U.S. Department of Education, National Assessment Governing Board, Reading Framework for the 2007 National Assessment of Educational Progress (NAEP), 2006.

## No significant change since 2005 in reading performance for American Indian/Alaska Native students

Figure 2. Average scores in NAEP reading, by grade and student group: 2005 and 2007


* Significantly different ( $p<.05$ ) from 2007.

NOTE: AI/AN = American Indian/Alaska Native.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 and 2007 National Indian Education Studies.

Figure 3. Achievement-level results in NAEP reading, by grade and student group: 2005 and 2007


* Significantly different ( $p<.05$ ) from 2007.

NOTE: AI/AN = American Indian/Alaska Native.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics,
National Assessment of Educational Progress (NAEP), 2005 and 2007 National Indian Education Studies.

The average reading scores for AI/AN fourth- and eighth-graders did not change significantly between 2005 and 2007, while scores for their nonAI/AN peers increased (figure 2). AI/AN students continued to score lower on average than non-AI/AN students in 2007.

The pattern in achievement-level results was similar to that of average reading scores. There were no significant changes between 2005 and 2007 in the percentages of AI/AN students performing at or above Basic and at or above Proficient for either grade (figure 3). Over the same time period, the percentages of non-AI/AN fourth-graders performing at or above both achievement levels increased, as did the percentage of non-AI/AN eighth-graders performing at or above Basic.

In 2007, smaller percentages of AI/AN students than non-AI/AN students performed at or above Basic and at or above Proficient at both grades.

At grade 4, AI/AN was the only one of the five racial/ethnic groups that did not show an increase in reading scores from 2005 to 2007. Since 2005, however, at grade 8, AI/AN, Hispanic, and Asian/ Pacific Islander students did not show gains (data not shown).

## No significant difference in average scores between AI/AN and Black or Hispanic students

At both grades, AI/AN students scored lower than their White and Asian/Pacific Islander counterparts in 2007; however, there was no significant difference in their scores compared with Black or Hispanic students (figures 4 and 5).

Figure 4. Average scores in NAEP reading at grade 4, by race/ethnicity: 2007


* Significantly different ( $p<.05$ ) from AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and
Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Figure 5. Average scores in NAEP reading at grade 8, by race/ethnicity: 2007


* Significantly different ( $p<.05$ ) from AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

## Higher percentages of AI/AN students perform at or above Proficient than their Black peers

Figure 6. Achievement-level results in NAEP reading at grade 4, by race/ethnicity: 2007



* Significantly different ( $p<.05$ ) from AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Figure 7. Achievement-level results in NAEP reading at grade 8, by race/ethnicity: 2007
Percent


[^0][^1]In 2007, at both grades, higher percentages of $\mathrm{AI} / \mathrm{AN}$ students performed at or above Proficient than Black students. Lower percentages of $\mathrm{AI} / \mathrm{AN}$ students performed at or above both achievement levels than either White or Asian/Pacific Islander students at both grades. When comparing the reading results of AI/AN and Hispanic students, there were no significant differences in the percentages performing at or above either achievement level at either grade (figures 6 and 7).

## Highest-performing AI/AN students score higher than their Black peers

Examining performance at selected percentiles can indicate when the overall picture diverges for lower-, middle-, or higherperforming students. A percentile indicates the percentage of students whose scores fell at or below a particular score on the NAEP reading scale. For example, 50 percent of grade $4 \mathrm{AI} / \mathrm{AN}$ students scored at or below 207 (table 5), and 50 percent of grade 8 AI/AN students scored at or below 249 (table 6).

Compared to grade 4 students from other racial/ethnic groups, higher-performing AI/AN students (those at the 75th and 90th percentiles) scored higher than their Black peers. The lowestperforming AI/AN students (those at the 10th percentile) scored lower than their Black peers.

At grade 8, the highest-performing AI/AN students scored higher than their Black and Hispanic peers.

At each of the five percentiles analyzed, the score for American Indian/Alaska Native students was lower than the score for White and Asian/Pacific Islander students at both grades 4 and 8 .

Table 5. Percentile scores in NAEP reading at grade 4, by race/ethnicity: 2007

|  | Percentile |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Race/ethnicity | 10th | 25th | 50th | 75th | 90th |  |
| Al/AN | 150 | 179 | 207 | 230 | 251 |  |
| Black | $160^{*}$ | 182 | 205 | $226^{*}$ | $244^{*}$ |  |
| Hispanic | 157 | 183 | 208 | 230 | 249 |  |
| White | $190^{*}$ | $211^{*}$ | $233^{*}$ | $252^{*}$ | 269* |  |
| Asian/Pacific Islander | $187^{*}$ | 211* | 234* | $257^{*}$ | 275* |  |
| * |  |  |  |  |  |  |

* Significantly different ( $p<.05$ ) from AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Table 6. Percentile scores in NAEP reading at grade 8, by race/ethnicity: 2007

|  | Percentile |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
|  | Race/ethnicity | 10th | 25th | 50th | 75th |  |
| AI/AN | 198 | 224 | 249 | 272 | 90th |  |
| Black | 202 | 225 | 247 | $267^{*}$ | $285^{*}$ |  |
| Hispanic | 201 | 226 | 250 | 271 | $289^{*}$ |  |
| White | $232^{*}$ | $253^{*}$ | $274^{*}$ | $293^{*}$ | $310^{*}$ |  |
| Asian/Pacific Islander | $224^{*}$ | $250^{*}$ | $274^{*}$ | $295^{*}$ | $313^{*}$ |  |

* Significantly different ( $p<.05$ ) from AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

## AI/AN female students outscore their male peers in reading

At both grades 4 and 8 , neither male nor female AI/AN students showed significant changes in average scores between 2005 and 2007 (figures 8 and 9). The results for other racial/ethnic groups varied by gender.

In 2007, female students had higher average reading scores than male students at both grades within each racial/ethnic group. Both male and female AI/AN students scored lower on average than their White or Asian/Pacific Islander
counterparts. However, when comparing scores among AI/AN, Black, and Hispanic students, the results were not significantly different across gender groups.

Figure 8. Average scores in NAEP reading at grade 4, by race/ethnicity and gender: 2005 and 2007


[^2]Figure 9. Average scores in NAEP reading at grade 8, by race/ethnicity and gender: 2005 and 2007


[^3]
## No significant change in scores for lower-income AI/AN students

For fourth- and eighth-grade AI/AN students, there were no significant changes in average scores between 2005 and 2007 based on students' eligibility for free or reduced-price lunch (figures 10 and 11).

In contrast to the previous results that showed no significant differences in the average scores between AI/AN and Black or Hispanic students, the average reading score in 2007 for fourthgrade AI/AN students eligible for
free lunch was lower than the scores for their Black and Hispanic peers. At grade 8, AI/AN students had higher average scores when compared to Black students in the not eligible category in 2007.

Figure 10. Average scores in NAEP reading at grade 4, by eligibility for National School Lunch Program and selected race/ethnicity categories: 2005 and 2007


* Significantly different ( $p<.05$ ) from 2007. NOTE: AI/AN = American Indian/ Alaska Native. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 and 2007 National Indian Education Studies.

Figure 11. Average scores in NAEP reading at grade 8, by eligibility for National School Lunch Program and selected race/ethnicity categories: 2005 and 2007


## In city schools, AI/AN fourth-graders score higher than Black and Hispanic peers

NAEP reports student achievement results for four types of school locations: city, suburb, town, and rural. The comparison of reading achievement by AI/AN students and their Black and Hispanic counterparts varies depending on the location of the students' schools. At grade 4, AI/AN students attending schools in city locations had higher reading scores than their Black and Hispanic peers attending schools in city locations. AI/AN fourth-graders attending schools in suburban locations also outperformed Hispanic students attending suburban schools. However, AI/AN students attending schools in rural locations had lower reading scores than their Black and Hispanic peers in the same type of location (figure 12).

At grade 8, AI/AN students scored lower than Hispanic students in rural schools in 2007. The apparent differences between AI/AN and Black or Hispanic students within all other school locations were not statistically significant (figure 13).
At grade 4, AI/AN students attending schools in rural locations scored lower than AI/AN students in all other types of locations in 2007. At grade 8, AI/AN students in rural settings had lower scores than their AI/AN peers in suburban schools, but not significantly different scores from their AI/AN peers attending schools in city or town locations in 2007. See Technical Notes for more information on school locations (see also table A-3).

Figure 12. Average scores in NAEP reading for AI/AN students at grade 4, by type of school location and selected race/ethnicity categories: 2007


* Significantly different ( $p<.05$ ) from AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Figure 13. Average scores in NAEP reading for AI/AN students at grade 8, by type of school location and selected race/ethnicity categories: 2007


[^4]
## AI/AN students in low density schools score higher than their peers in high density schools

School density refers to the percentage of AI/AN students enrolled in the school. High density schools are defined by the office of Indian Education as those in which at least 25 percent of students are AI/AN.

At fourth grade, 46 percent of AI/AN students assessed in NAEP reading attended high density schools in 2007, and at eighth grade, 45 percent did so (data not shown). At both grades 4 and 8 , low density schools were more evenly distributed across the four school locations than were high density schools, which were concentrated in rural locations (table 8). Compared to AI/AN students in low density schools, higher percentages of AI/AN students in high density schools were identified as eligible for free/reduced-price school lunch and English language learners.

There were no significant changes in average reading scores for AI/AN students in either low or high density schools at either grade between 2005 and 2007 (figure 14).
At both grades in 2007, AI/AN students at low density schools had higher average scores than their counterparts at high density schools.

Table 8. Percentage of AI/AN students in NAEP reading, by grade, school density, and selected school and student characteristics: 2007

| School/student characteristics | Grade 4 |  | Grade 8 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | High density | Low density | High density | $\begin{array}{r} \text { Low } \\ \text { density } \end{array}$ |
| School location |  |  |  |  |
| City | 2* | 33 | 2* | 29 |
| Suburb | 1* | 26 | 1* | 26 |
| Town | 24* | 16 | 19 | 19 |
| Rural | 73* | 25 | 78* | 25 |
| Eligible for free/reduced-price lunch | 79* | 54 | 77* | 51 |
| Students with disabilities | 10* | 13 | 10 | 13 |
| English language learners | 16* | 3 | 15* | 2 |

* Significantly different ( $p<.05$ ) from AI/AN students attending low density schools.

NOTE: AI/AN = American Indian/Alaska Native. School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Figure 14. Average scores in NAEP reading for AI/AN students, by grade and school density: 2005 and 2007
Scale score


[^5]
## AI/AN students in public schools score higher than their peers in BIE schools

Eighty-eight to 89 percent of AI/AN students who were assessed in NAEP reading in 2007 attended public schools, and approximately 6 to 7 percent attended BIE schools (table 9-A). Ninety-three percent of AI/AN students enrolled in BIE schools were in rural locations, and 94 percent were eligible for free/reduced-price school lunch (table 9-B).

At both grades, AI/AN students who attended public schools had higher reading scores than their AI/AN peers attending BIE schools. However, at both grades, there was no significant difference in the scores of AI/AN English language learners between the two types of schools.

Table 9-A. Percentage of AI/AN students and average scores in NAEP reading, by grade and type of school: 2007

| Type of school | Grade 4 |  | Grade 8 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Percentage | Average score | Percentage | Average score |
| Public | 89 | 206 | 88 | 248 |
| BIE | 7* | 180* | 6* | 228* |

* Significantly different ( $p<.05$ ) from AI/AN students attending public schools.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. The percentages do not sum to 100 because results are not shown for Department of Defense and private schools.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Table 9-B. Percentage of AI/AN students and average scores in NAEP reading, by type of school, grade, and selected school and student characteristics: 2007

| Grade and school/student characteristics | Public schools |  | BIE schools |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Percentage | Average score | Percentage | Average score |
| Grade 4 |  |  |  |  |
| School location |  |  |  |  |
| City | 21 | 208 | \# | $\ddagger$ |
| Suburb | 15 | 215 | 4* | $\ddagger$ |
| Town | 22 | 206 | 3* | $\ddagger$ |
| Rural | 42 | 201 | 93* | 179* |
| Eligible for free/reduced-price lunch | 65 | 198 | 94* | 179* |
| Students with disabilities | 12 | 168 | 9* | 148* |
| English language learners | 8 | 173 | 28* | 167 |
| Grade 8 |  |  |  |  |
| School location |  |  |  |  |
| City | 18 | 247 | \# | $\ddagger$ |
| Suburb | 16 | 256 | 3* | $\ddagger$ |
| Town | 21 | 248 | 5* | $\ddagger$ |
| Rural | 45 | 247 | 93* | 228* |
| Eligible for free/reduced-price lunch | 62 | 242 | 94* | 227* |
| Students with disabilities | 12 | 214 | 11 | 194* |
| English language learners | 7 | 216 | 16* | 215 |

[^6]
## State Reading Results

Results for 11 states with relatively large populations of American Indian/Alaska Native (AI/AN) students are reported for NIES 2007. The AI/AN student enrollment in these states represents more than 50 percent of the AI/AN student enrollment in the nation. NIES state-level data include results from AI/AN students who attended public and BIE schools. The national AI/AN sample referenced as a point of comparison to these state results was also made up of public and BIE school students only.

In examining the results for the selected states, the variations in educational contexts, such as different school types, demographic factors, and socioeconomic factors, should be considered.

## School and student characteristics vary by state

The following two tables show the percentage of AI/AN students within each of the selected states by a variety of school and student characteristics. The data in these two tables provide a snapshot of the diverse settings represented by the selected states.

For example, at grade 4, the percentages of AI/AN students who attended BIE schools in four of the states
(Arizona, New Mexico, North Dakota, and South Dakota) ranged from 20 to 29 percent, while the other seven selected states had 6 percent or less of AI/AN students who attended BIE schools (table 10-A). The percentages of grade $8 \mathrm{AI} / \mathrm{AN}$ students who attended public schools ranged from 61 percent in South Dakota to 100 percent in Alaska, North Carolina, and Oregon.

Table 10-A. Percentage of AI/AN students assessed in NAEP reading, by various school characteristics, grade, and selected states: 2007

| Grade and state | Type of school |  | School location |  |  |  | School density |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public | BIE | City | Suburb | Town | Rural | High | Low |
| Grade 4 |  |  |  |  |  |  |  |  |
| Nation | 93 | 7 | 19 | 14 | 20 | 46 | 45 | 55 |
| Alaska | 100 | \# | 24 | 1* | 17 | 58* | 69* | 31* |
| Arizona | 74* | 26* | 18 | 8* | 9 | 64* | 67* | 33* |
| Minnesota | 95* | 5* | 11 | 7 | 20 | 62 | 40 | 60 |
| Montana | 100 | \# | 15 | \# | 19 | $66^{*}$ | 71* | 29* |
| New Mexico | 71* | 29* | 18 | 7* | 18 | 58 | 71* | 29* |
| North Carolina | 100 | \# | 9* | 9 | 20 | 61 | 60* | 40* |
| North Dakota | 80* | 20* | 13* | 6* | 10 * | 72* | 68* | 32* |
| Oklahoma | 100 | \# | 9* | 10 | 35* | 46 | 59* | 41* |
| Oregon | 100 | \# | 24 | 11 | 38 | 27 | 17 | 83 |
| South Dakota | 73* | 27* | 12* | 2* | 9* | 77* | 78* | 22* |
| Washington | 94* | 6* | 27 | 34* | 15 | 24* | 24* | 76* |
| Grade 8 |  |  |  |  |  |  |  |  |
| Nation | 94 | 6 | 17 | 15 | 20 | 48 | 44 | 56 |
| Alaska | 100 | \# | 20 | 3* | $14 *$ | $64 *$ | 60* | 40* |
| Arizona | 85* | 15* | 17 | 4* | 16 | 63* | 74* | 26* |
| Minnesota | 96* | 4* | 22 | 11 | 13 | 54 | 36 | 64 |
| Montana | 98* | 2* | 16 | 2* | 20 | 61* | 63* | 37* |
| New Mexico | 80* | 20* | 12 | 4* | 9* | $74 *$ | 80* | 20* |
| North Carolina | 100 | \# | 6 | \# | 42 | 53 | 58 | 42 |
| North Dakota | 73* | 27* | 7* | 7* | 15 | 71* | 70* | 30* |
| Oklahoma | 99* | 1* | 6* | 11* | 31 * | 52 | 66* | 34* |
| Oregon | 100 | \# | 15 | 13 | 39 | 33 | 20* | 80* |
| South Dakota | 61* | 39* | 13 | \# | 14 | 73* | 75* | 25* |
| Washington | 95 | 5 | 18 | 39* | 14 | 30* | 15* | 85* |

\# Rounds to zero.

* Significantly different ( $p<.05$ ) from AI/AN students in the nation.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. The percentages under the type of school category may not sum to 100 because results are not shown for Department of Defense and private schools. The percentages under the school location and school density categories may not sum to totals because of rounding. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

In most of the selected states (at both grades), over 50 percent of AI/AN students attended rural schools. Fourth-grade AI/AN students who attended high density schools ranged from 17 percent in Oregon to 78 percent in South Dakota.

The percentages of AI/AN students eligible for free school lunch ranged from 46 percent in grade 8
in Oregon to 90 percent in grade 4 in South Dakota (table 10-B). The percentages of grade $4 \mathrm{AI} / \mathrm{AN}$ students identified as English language learners ranged from 1 percent (Washington) to 39 percent (New Mexico). At grade 8, the percentages of AI/AN students identified as English language learners ranged from 1 percent (Oklahoma) to 37 percent (Alaska).

Table 10-B. Percentage of AI/AN students assessed in NAEP reading, by various student characteristics, grade, and selected states: 2007

| Grade and state | Eligibility for National School Lunch Program |  |  | Students with disabilities | English language learners |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Eligible for free lunch | Eligible for reduced-price lunch | Not eligible |  |  |
| Grade 4 |  |  |  |  |  |
| Nation | 59 | 8 | 32 | 12 | 9 |
| Alaska | 62 | 5 | 31 | 15 | 25* |
| Arizona | 74* | 7 | 16* | 11 | 20* |
| Minnesota | 57 | 2 | 40 | 15 | 3* |
| Montana | 71* | 7 | 22* | 11 | 27* |
| New Mexico | 88* | \# | $12^{*}$ | 9 | 39* |
| North Carolina | 60 | 12 | 28 | 17 | \# |
| North Dakota | 84* | 3* | $13^{*}$ | 14 | 5* |
| Oklahoma | 52* | 11* | 37 | 11 | \# |
| Oregon | 52 | 22 | 26 | 18 | 11 |
| South Dakota | 90* | \# | $10^{*}$ | 11 | 10 |
| Washington | 55 | 4 | 40 | 13 | 1* |
| Grade 8 |  |  |  |  |  |
| Nation | 56 | 7 | 35 | 12 | 8 |
| Alaska | 55 | 5* | 39 | 14 | 37* |
| Arizona | 67 | 9 | 23* | 8 | 11 |
| Minnesota | 74* | \# | 26 | 16 | \# |
| Montana | 61 | 10 | 29 | 17 | $30^{*}$ |
| New Mexico | 84* | 2* | 13* | 10 | 31 * |
| North Carolina | 61 | 8 | 30 | 9 | \# |
| North Dakota | 81* | \# | 19* | 11 | 12 |
| Oklahoma | 49* | 11* | 40 | 11 | 1* |
| Oregon | 46 | 13 | 41 | 12 | 5 |
| South Dakota | 79* | 2* | 19* | 10 | 5* |
| Washington | 51 | 6 | 43 | 12 | 2* |

[^7]* Significantly different ( $p<.05$ ) from AI/AN students in the nation.

NOTE: AI/AN = American Indian/Alaska Native. The percentages under the eligibility for National School Lunch Program category may not sum to 100 percent because results are not shown for students whose eligibility status was not available.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

## AI/AN fourth-graders in Oklahoma score higher than AI/AN peers in the nation

Figure 15 shows the average reading scores of grade $4 \mathrm{AI} / \mathrm{AN}$ students in the nation and in the selected states, rank-ordered from the highest to the lowest. AI/AN students in Oklahoma had higher average scores, and AI/AN students in New Mexico, South Dakota, Alaska, and Arizona had lower average scores when compared to AI/AN students in the nation.

Figure 16 shows achievement-level results for the selected states. The percentages of AI/AN students performing at or above the Basic level ranged from 29 percent in Arizona to 60 percent in Oklahoma.

The jurisdiction had a higher average score than the jurisdiction listed at the top of the column.
No statistically significant difference detected from the jurisdiction listed at the top of the column.
The jurisdiction had a lower average score than the jurisdiction listed at the top of the column.

Figure 15. Cross-state comparison of average scores in NAEP reading for AI/AN students at grade 4: 2007

${ }^{1}$ The "other 39 states" category includes all states not shown and the District of Columbia.
NOTE: AI/AN = American Indian/Alaska Native. Read across the row corresponding to a jurisdiction listed to the left of the chart. Match the shading intensity (and arrow direction) to the chart's key to determine whether the average score for students in this jurisdiction was found to be higher than (up arrow), not significantly different from (blank cell), or lower than (down arrow) the average score for students in the jurisdiction in the column heading. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Figure 16. Percentage of AI/AN students in NAEP reading at grade 4, by achievement level and selected states: 2007


[^8]
## AI/AN eighth-graders in Oregon and Oklahoma score higher than AI/AN peers in the nation

Compared to AI/AN grade 8 students in the nation, AI/AN students in Oregon and Oklahoma had higher average scores, and their AI/AN peers in South Dakota, Alaska, New Mexico, and Arizona had lower average scores (figure 17).

Figure 18 shows achievement-level results for the selected states. The percentages of AI/AN students performing at or above the Basic level ranged from 40 percent in Arizona to 69 percent in Oregon.

The jurisdiction had a higher average score than the jurisdiction listed at the top of the column.
No statistically significant difference detected from the jurisdiction listed at the top of the column.
The jurisdiction had a lower average score than the jurisdiction listed at the top of the column.

Figure 17. Cross-state comparison of average scores in NAEP reading for AI/AN students at grade 8: 2007

${ }^{1}$ The "other 39 states" category includes all states not shown and the District of Columbia.
NOTE: AI/AN = American Indian/Alaska Native. Read across the row corresponding to a jurisdiction listed to the left of the chart. Match the shading intensity (and arrow direction) to the chart's key to determine whether the average score for students in this jurisdiction was found to be higher than (up arrow), not significantly different from (blank cell), or lower than (down arrow) the average score for students in the jurisdiction in the column heading. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Figure 18. Percentage of AI/AN students in NAEP reading at grade 8, by achievement level and selected states: 2007


## Regional Reading Results

Reading results are reported for the five NIES-defined regions: Atlantic, North Central, South Central, Mountain, and Pacific. These regions, which differ from the typical regions used in other NAEP reports, are based on U.S. Census divisions and are configured to align with the overall distribution of the American Indian/Alaska Native student population. The regional results are based on samples from students enrolled in all types of schools (public, private, BIE, and Department of Defense), and reflect the combined state samples from all of the states within each region.

## AI/AN results vary across regions

At grade 4, AI/AN students scored lower on average than nonAI/AN students in each of the regions (figure 19). The score gap between non-AI/AN and AI/AN students was 18 points at the national level. The score gaps in the regions ranged from 5 points (South Central) to 29 points (Mountain).

Approximately 74 percent of the grade 4 AI/AN students assessed in reading attended schools in the South Central, Mountain, and Pacific regions combined (table 11).

Figure 19. Average scores in NAEP reading at grade 4, by region and student group: 2007


* Significantly different ( $p<.05$ ) from AI/AN students in the same region.

NOTE: AI/AN = American Indian/Alaska Native
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Table 11. Percentage of AI/AN and non-AI/AN students assessed in NAEP reading at grade 4, by region: 2007

| Region | AI/AN students | Non-AI/AN students |
| :--- | ---: | ---: |
| Atlantic | 10 | $36^{*}$ |
| North Central | 16 | $22^{*}$ |
| South Central | 27 | $18^{*}$ |
| Mountain | 29 | $7 *$ |
| Pacific | 17 | 17 |

* Significantly different ( $p<.05$ ) from AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

With the exception of the South Central region (in which there was no significant difference in average scores), AI/AN grade 8 students in each of the regions had lower average scores than non-AI/AN students (figure 20). At the national level, the score gap between non-AI/AN and AI/AN eighth-graders was 16 points. The difference in average scores within the regions ranged from 2 points (South Central, a nonsignificant difference) to 26 points (Mountain).

Approximately 75 percent of the grade $8 \mathrm{AI} / \mathrm{AN}$ students assessed in reading attended schools in the South Central, Mountain, and Pacific regions combined (table 12).

Table 12. Percentage of AI/AN and nonAI/AN students assessed in NAEP reading at grade 8 , by region: 2007

| Region | AI/AN <br> students | Non-AI/AN <br> students |
| :--- | ---: | ---: |
| Atlantic | 9 | $37^{*}$ |
| North Central | 15 | $22^{*}$ |
| South Central | 21 | $17^{*}$ |
| Mountain | 31 | $7^{*}$ |
| Pacific | 23 | $17^{*}$ |

* Significantly different ( $p<.05$ ) from AI/AN students. NOTE: AI/AN = American Indian/Alaska Native. Detail may not sum to totals because of rounding. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

Figure 20. Average scores in NAEP reading at grade 8, by region and student group: 2007


* Significantly different ( $p<.05$ ) from AI/AN students in the same region. NOTE: AI/AN = American Indian/Alaska Native
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.


[^0]:    \% at or above Proficient
    \% at or above Basic

[^1]:    * Significantly different ( $p<.05$ ) from AI/AN students.

    NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
    SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

[^2]:    * Significantly different ( $p<.05$ ) from 2007.

    NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
    SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 and 2007 National Indian Education Studies.

[^3]:    * Significantly different ( $p$ < .05) from 2007

    NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.
    SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 and 2007 National Indian Education Studies.

[^4]:    * Significantly different ( $p<.05$ ) from AI/AN students.

    NOTE: AI/AN = American Indian/Alaska Native. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.
    SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

[^5]:    NOTE: AI/AN = American Indian/Alaska Native. School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 and 2007 National Indian Education Studies.

[^6]:    \# Rounds to zero.
    $\ddagger$ Reporting standards not met. Sample size was insufficient to permit a reliable estimate.

    * Significantly different ( $p<.05$ ) from AI/AN students attending public schools.

    NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. Results are not shown for Department of Defense and private schools. Detail may not sum to totals because of rounding.
    SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

[^7]:    \# Rounds to zero.

[^8]:    NOTE: AI/AN = American Indian/Alaska Native. Detail may not sum to totals because of rounding.
    SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

