# 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 <a href="http://www.nagb.org/frameworks/">http://www.nagb.org/frameworks/</a> 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	†	24%

<sup>†</sup> 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.

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

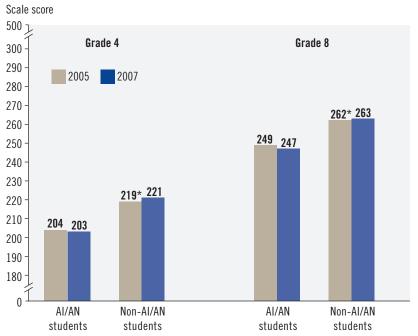
Aspects of reading	Grade 4	Grade 8
Forming a general understanding/ Developing interpretation <sup>1</sup>	60%	55%
Making reader/text connections	15%	15%
Examining content and structure	25%	30%

<sup>&</sup>lt;sup>1</sup> For the purpose of distribution by assessment time, forming a general understanding and developing interpretation were combined as per the specifications for the

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

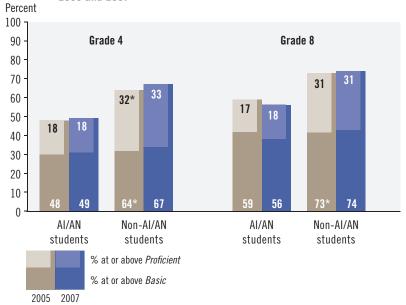


<sup>\*</sup> Significantly different (p < .05) from 2007.

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



<sup>\*</sup> Significantly different (p < .05) from 2007. NOTE: Al/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 non-AI/AN peers increased (figure 2). AI/AN students continued to score lower on average than non-AI/AN students in 2007.

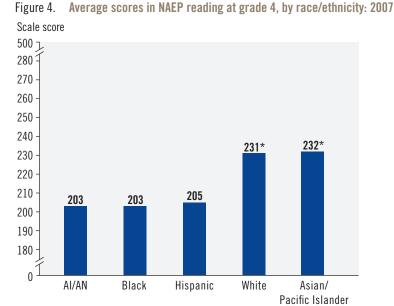
The pattern in achievement-level results was similar to that of average reading scores. There were no significant changes between 2005 and 2007 in the percentages of AI/AN students performing at or above Basic and at or above *Proficient* for either grade (figure 3). Over the same time period, the percentages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

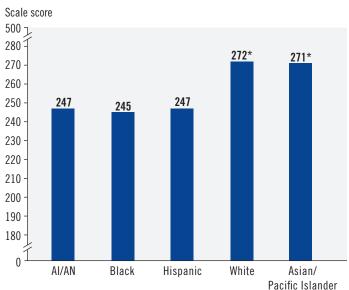


<sup>\*</sup> Significantly different (*p* < .05) from AI/AN students.

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



<sup>\*</sup> Significantly different (p < .05) from Al/AN students.

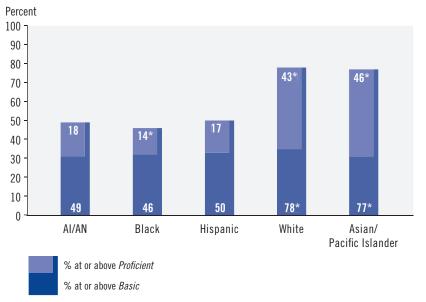
NOTE: Al/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

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

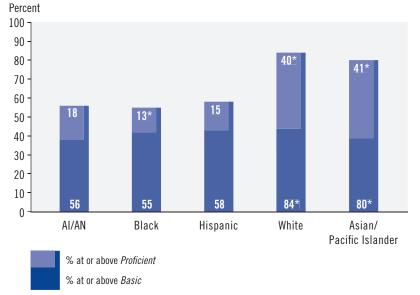
Figure 6. Achievement-level results in NAEP reading at grade 4, by race/ethnicity: 2007



<sup>\*</sup> Significantly different (p < .05) from AI/AN students.

NOTE: Al/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



<sup>\*</sup> Significantly different (p < .05) from AI/AN students.

NOTE: Al/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.

In 2007, at both grades, higher percentages of AI/AN students performed at or above *Proficient* than Black students. Lower percentages of AI/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 higher-performing 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 AI/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 lowest-performing 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						
AI/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.</li>

NOTE: Al/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	90th							
AI/AN	198	224	249	272	295							
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: Al/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

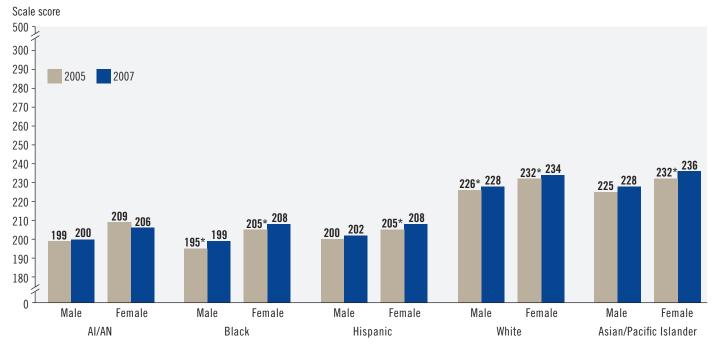
# AI/AN female students outscore their male peers in reading

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.

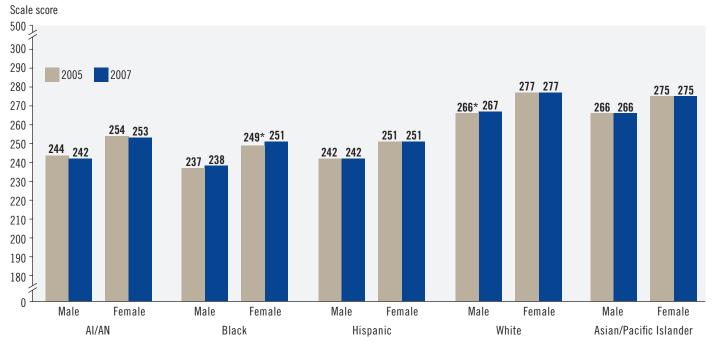
Figure 8. Average scores in NAEP reading at grade 4, by race/ethnicity and gender: 2005 and 2007



<sup>\*</sup> Significantly different (p < .05) from 2007.

NOTE: Al/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.





\* Significantly different ( $\rho$  < .05) from 2007.

NOTE: Al/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.





#### Fifty-six to sixty-four percent of Al/AN, Black, and Hispanic students eligible for free school lunch

A student's eligibility for the National School Lunch Program is used as an indicator of socioeconomic status: students from lower-income families are eligible for free or reduced-price school lunch. Table 7 shows the percentages of students assessed in NAEP reading by grade, race/ethnicity, and eligibility status in 2007. At grade 4, fifty-eight percent of AI/AN students, 64 percent of Black students, and 63 percent of Hispanic students assessed in reading in 2007 were eligible for free lunch. At grade 8, fifty-six percent of AI/AN students, 57 percent of Black students, and 58 percent of Hispanic students assessed in reading in 2007 were eligible for free lunch. See Technical Notes for more information about the National School Lunch Program.

Table 7. Percentage of students in NAEP reading, by eligibility for National School Lunch Program, grade, and race/ethnicity: 2007

Grade and race/ethnicity	Eligible for free lunch	Eligible for reduced-price lunch	Not eligible	Information not available
Grade 4				
AI/AN	58	8	32	2
Black	64	6	26	3
Hispanic	63	9	24	5
White	18	5	69	8
Asian/Pacific Islander	24	6	61	9
Grade 8				
AI/AN	56	7	35	2
Black	57	7	32	4
Hispanic	58	9	28	5
White	16	5	70	9
Asian/Pacific Islander	27	7	57	9

NOTE: Al/AN = American Indian/Alaska Native. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Detail may not sum to totals because of rounding.

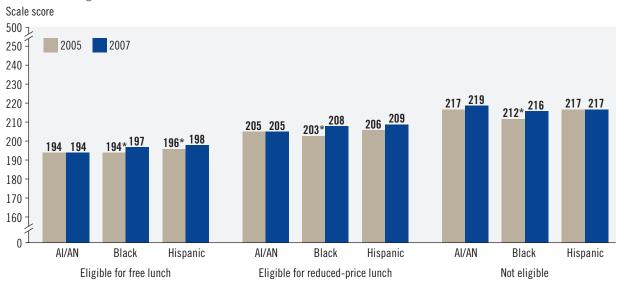
#### No significant change in scores for lower-income AI/AN students

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

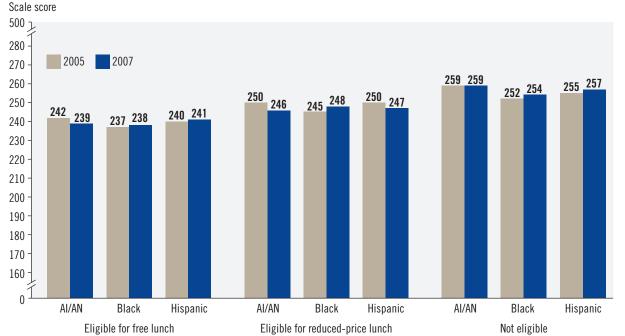
free lunch was lower than the scores for their Black and Hispanic peers. At grade 8, AI/AN students had higher average scores when compared to Black students in the not eligible category in 2007.

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



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** (NAFP) 2005 and 2007 National Indian Education Studies

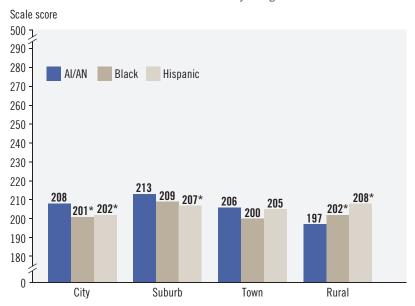
# In city schools, AI/AN fourth-graders score higher than Black and Hispanic peers

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 Al/AN students at grade 4, by type of school location and selected race/ethnicity categories: 2007

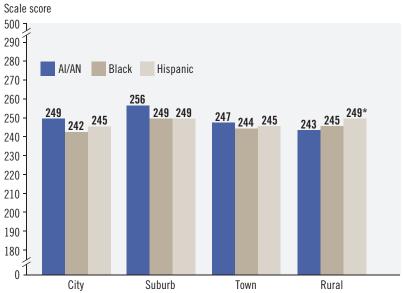


<sup>\*</sup> Significantly different (p < .05) from AI/AN students.

NOTE: Al/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 Al/AN students at grade 8, by type of school location and selected race/ethnicity categories: 2007



<sup>\*</sup> Significantly different (p < .05) from Al/AN students.

NOTE: Al/AN = American Indian/Alaska Native. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

# 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).

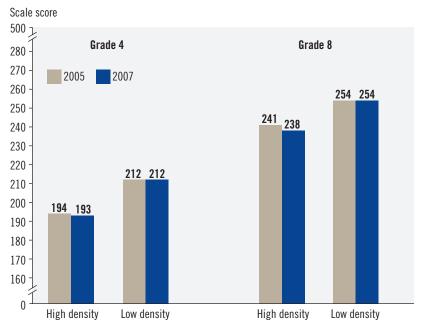
At both grades in 2007, AI/AN students at low density schools had higher average scores than their counterparts at high density schools.

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

	Gra	de 4	Grade 8			
School/student characteristics	High density	Low density	High density	Low density		
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		

<sup>\*</sup> Significantly different (p < .05) from Al/AN students attending low density schools.

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



NOTE: Al/AN = American Indian/Alaska Native. School density indicates the proportion of Al/AN students enrolled. High density schools have 25 percent or more Al/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.

NOTE: Al/AN = American Indian/Alaska Native. School density indicates the proportion of Al/AN students enrolled. High density schools have 25 percent or more Al/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.

# 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

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

<sup>\*</sup> Significantly different (p < .05) from Al/AN students attending public schools.

NOTE: Al/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.

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

	Public	schools	BIE schools			
Grade and school/student characteristics	Percentage	Average score	Percentage	Average score		
Grade 4						
School location						
City	21	208	#	‡		
Suburb	15	215	4*	‡		
Town	22	206	3*	‡		
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	#	‡		
Suburb	16	256	3*	‡		
Town	21	248	5*	‡		
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		

<sup>#</sup> Rounds to zero.

<sup>‡</sup> Reporting standards not met. Sample size was insufficient to permit a reliable estimate.

 $<sup>^{*}</sup>$  Significantly different (p < .05) from Al/AN students attending public schools.

NOTE: Al/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.

#### 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 AI/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 Al/AN students assessed in NAEP reading, by various school characteristics, grade, and selected states: 2007

	Type of sch	ool		School lo	cation		School density		
Grade and state	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*	

<sup>#</sup> Rounds to zero.

<sup>\*</sup> Significantly different (p < .05) from Al/AN students in the nation.

NOTE: Al/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of Al/AN students enrolled. High density schools have 25 percent or more Al/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 AI/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 Al/AN students assessed in NAEP reading, by various student characteristics, grade, and selected states: 2007

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

<sup>#</sup> Rounds to zero.

<sup>\*</sup> Significantly different (p < .05) from Al/AN students in the nation.

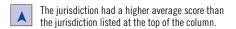
NOTE: Al/AN = American Indian/Alaska Native. The percentages under the eligibility for National School Lunch Program category may not sum to 100 percent because results are not shown for students whose eligibility status was not available.

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 AI/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.



No statistically significant difference detected from 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

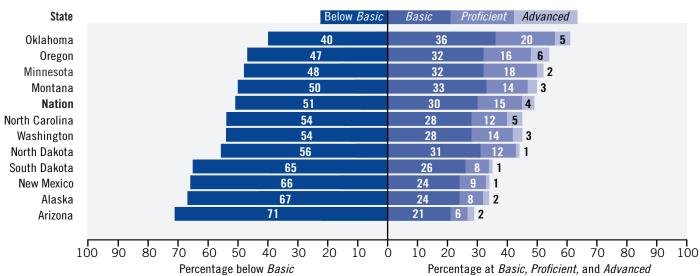
Jurisdiction (Average score)	Nation	Oklahoma	Other 39 states <sup>1</sup>	Oregon	Minnesota	Montana	Washington	North Carolina	North Dakota	New Mexico	South Dakota	Alaska	Arizona
Nation (204)		٧	Y							<b>A</b>	<b>A</b>	<b>A</b>	A
Oklahoma (213)	<b>A</b>								<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	A
Other 39 states <sup>1</sup> (211)	<b>A</b>								<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
Oregon (206)													<b>A</b>
Minnesota (205)												<b>A</b>	<b>A</b>
Montana (204)										<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
Washington (204)												<b>A</b>	<b>A</b>
North Carolina (202)												<b>A</b>	<b>A</b>
North Dakota (201)		٧	٧								<b>A</b>	<b>A</b>	<b>A</b>
New Mexico (193)	٧	٧	٧			٧							
South Dakota (192)	٧	٧	Y			Y			Y				<b>A</b>
Alaska (188)	Y	٧	٧		٧	٧	٧	٧	٧				
Arizona (184)	Y	٧	٧	٧	Y	Y	<b>Y</b>	٧	V		Y		

The "other 39 states" category includes all states not shown and the District of Columbia.

NOTE: Al/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



NOTE: Al/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.

The jurisdiction had a lower average score than the jurisdiction listed at the top of the column.

# 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.

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

Jurisdiction (Average score)	Nation	Oregon	Oklahoma	Other 39 states <sup>1</sup>	Washington	Montana	Minnesota	North Dakota	South Dakota	North Carolina	Alaska	New Mexico	Arizona
Nation (247)		¥	٧	٧					<b>A</b>		<b>A</b>	<b>A</b>	<b>A</b>
Oregon (260)	<b>A</b>							<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
Oklahoma (256)	<b>A</b>							A	<b>A</b>	<b>A</b>	A	<b>A</b>	<b>A</b>
Other 39 states <sup>1</sup> (253)	<b>A</b>								<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
Washington (251)											<b>A</b>	<b>A</b>	<b>A</b>
Montana (249)									<b>A</b>		<b>A</b>	<b>A</b>	<b>A</b>
Minnesota (246)												<b>A</b>	<b>A</b>
North Dakota (246)		¥	Y								<b>A</b>	<b>A</b>	<b>A</b>
South Dakota (241)	Y	٧	Y	٧		Y						<b>A</b>	<b>A</b>
North Carolina (236)		٧	Y	٧									
Alaska (236)	٧	٧	٧	٧	Y	Y		Y					
New Mexico (233)	٧	٧	Y	٧	٧	Y	٧	٧	٧				
Arizona (232)	Y	Y	Y	Y	Y	Y	Y	Y	Y				

The jurisdiction had a higher average score than the jurisdiction listed at the top of the column.

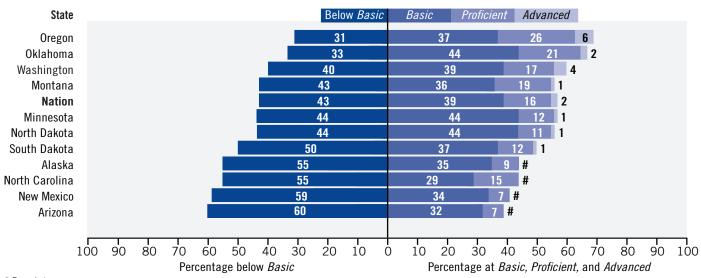
The jurisdiction had a lower average score than the jurisdiction listed at the top of the column.

<sup>1</sup> The "other 39 states" category includes all states not shown and the District of Columbia.

NOTE: Al/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 Al/AN students in NAEP reading at grade 8, by achievement level and selected states: 2007



# Rounds to zero.

NOTE: Al/AN = American Indian/Alaska Native. Detail may not sum to totals because of rounding.

No statistically significant difference detected from the jurisdiction listed at the top of the column.

#### 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 non-AI/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).

Scale score 500 J 280 7 AI/AN students Non-AI/AN students 270 260 250 240 230 225\* 224\* 221\* 214 218\* 219\* 220 213 213\* 210 206 203 201 200 190 190 180 0 **Nation Atlantic** North South Mountain **Pacific** 

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

Central

Central

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

<sup>\*</sup> Significantly different (p < .05) from AI/AN students.

NOTE: Al/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.

<sup>\*</sup> 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.

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).

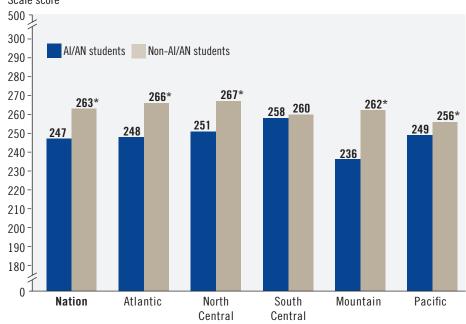
Approximately 75 percent of the grade 8 AI/AN students assessed in reading attended schools in the South Central, Mountain, and Pacific regions combined (table 12).

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

Region	AI/AN students	Non-AI/AN students
Atlantic	9	37*
North Central	15	22*
South Central	21	17*
Mountain	31	7*
Pacific	23	17*

<sup>\*</sup> Significantly different (p < .05) from Al/AN students. NOTE: Al/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 Scale score



<sup>\*</sup> Significantly different (p < .05) from Al/AN students in the same region. NOTE: Al/AN = American Indian/Alaska Native.

