

# National Indian Education Study 2019

American Indian and Alaska Native Students at Grades 4 and 8



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The National Indian Education Study (NIES) is designed to describe the condition of education for American Indian and Alaska Native students in the United States. NIES is conducted under the direction of the National Center for Education Statistics through the National Assessment of Educational Progress (NAEP) on behalf of the U.S. Department of Education’s Office of Indian Education (OIE). NIES is authorized under Executive Order 13592, Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities. Issued in 2011, Executive Order 13592 is the most recent authorization of Executive Order 13336, American Indian and Alaska Native Education (2004).

This study provides information on the academic performance of fourth- and eighth-grade American Indian/Alaska Native students in mathematics and reading, and on their educational experiences. From 2005 to 2011, NIES results were reported every two years. After 2011, the NIES reporting cycle was changed to every four years.

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NAEP is a congressionally authorized project of the National Center for Education Statistics within the Institute of Education Sciences of the U.S. Department of Education. The Commissioner of Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board oversees and sets policy for NAEP.

NAEP is an integral part of our nation’s evaluation of the condition and progress of education. Only information related to academic achievement and relevant variables is collected. The privacy of individual students and their families is protected, and the identities of participating schools are not released.

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# About This Report

This report presents results from the 2019 National Indian Education Study (NIES), which surveyed students, teachers, and school principals about the experiences of American Indian/Alaska Native (AI/AN)<sup>1</sup> students in grades 4 and 8. The survey, which has a particular emphasis on Native language and culture, also provides perspective on the overall educational context for AI/AN students in the United States. In addition to the survey results, this report provides performance results in reading and mathematics for AI/AN fourth- and eighth-graders in the nation as well as for 15 states that have relatively large proportions of AI/AN students such that their state-level results could be reported in 2019. Please note that the national survey and performance results presented here are made up of a nationally representative sample of participating AI/AN students across the nation, not just those from these 15 states (see table A-1).

NIES is administered as part of the National Assessment of Educational Progress (NAEP) to allow more in-depth reporting on the experiences and achievement of AI/AN students in grades 4 and 8. The NIES program provides tribal leaders, educators, policymakers, and researchers with reliable and accurate data regarding the education of AI/AN youth. At the same time, NIES is situated within a much larger context and the results contained here provide only a partial picture of a very complex mosaic; readers are encouraged to explore the list of Supplemental Resources provided later in this report. Finally, this report—in concord with the federal trust responsibility related to the education of AI/AN youth—seeks also to catalyze future research and collaboration among all interested stakeholders in this arena.



<sup>1</sup> This reporting group does not include Native Hawaiian students.

*“I think that our school should have more classes about languages and cultures.”*

*~ AI/AN fourth-grader response from the NIES survey*

*“I am proud of my culture and my tribes and wish I could learn more about them in school.”*

*~ AI/AN eighth-grader response from the NIES survey*

## Organization of the Report

- The *Introduction* includes information on sampling, participation, reporting, and the school types reported in the tables and figures throughout this report, as well as guidance about making comparisons and interpreting results.
- The *Survey Questionnaires* section discusses the development of the NIES survey questions as well as their importance for setting context for interpreting the educational experiences of AI/AN students. In addition, this section discusses how individual survey questions provide the building blocks for the composite variables interspersed in the two subsequent sections.
- The *AI/AN Culture and Language* section provides an in-depth look at the findings from the student, teacher, and administrator survey questions that are focused on AI/AN culture and language. Indeed, this discussion of culture and language provides the most thorough examination of these questions since the inception of the NIES program in 2005.
- The *Performance Results for the Nation* section provides information about the achievement of AI/AN students at grades 4 and 8 on the NAEP reading and mathematics assessments from 2005 to 2019. A supplemental subsection—*Perspectives Beyond the Average Score*—examines individual and contextual factors that are associated with higher versus lower academic performance among AI/AN students, as well as variables related to *engagement at school* and *perceptions about effort in school*.
- The *State Results* section provides reading and mathematics performance results for the 15 states that had reportable results for AI/AN students in 2019.

### **Explore Additional Results**

*This report presents selected results from the NAEP and NIES 2019 survey questionnaires, which can be accessed at [https://nces.ed.gov/nationsreportcard/experience/survey\\_questionnaires.aspx](https://nces.ed.gov/nationsreportcard/experience/survey_questionnaires.aspx). Complete 2019 NIES survey results and performance data for AI/AN students are available in the NAEP Data Explorer at <https://www.nationsreportcard.gov/ndecore/landing>. Copies of the most recent NIES report (*The National Indian Education Study 2019*), as well as reports from 2005, 2007, 2009, 2011, and 2015, may be downloaded from <https://nces.ed.gov/nationsreportcard/nies/>.*

# Introduction

Since 2005, the National Indian Education Study (NIES) has provided family members, tribal leaders, educators, students, policymakers, and the public with information about the educational experiences and the academic performance of fourth- and eighth-grade American Indian and Alaska Native (AI/AN) students in the United States.

## Participation in NIES 2019

AI/AN students make up about 1 percent of students in elementary and secondary schools nationally. Students were identified as AI/AN based on school records and were sampled along with other students participating in the NAEP 2019 subject-area assessments. Students were assessed in either mathematics or reading, not both. In 2019, about 7,000 AI/AN fourth-graders and 6,300 AI/AN eighth-graders responded to the NIES survey (table 1).

To maximize student sample sizes and to support the reporting of results, all fourth- and eighth-grade AI/AN students in the sampled schools were selected for participation in the NIES survey. All students participating in the NIES survey completed the same grade-specific questionnaire regardless of the NAEP subject area in which they were assessed. Furthermore, questionnaires were administered to participating students' mathematics and reading/language arts teachers to collect information specific to instructional practices in those subject areas.

**Table 1. Number of participating schools with AI/AN students and number of participating AI/AN students, by grade and type of school: 2019**

Type of school	Grade 4				Grade 8			
	Schools in NIES survey	Students			Schools in NIES survey	Students		
		NIES survey <sup>1</sup>	Mathematics assessment	Reading assessment		NIES survey <sup>1</sup>	Mathematics assessment	Reading assessment
<b>Overall</b>	<b>1,400</b>	<b>7,000</b>	<b>4,000</b>	<b>4,100</b>	<b>1,300</b>	<b>6,300</b>	<b>3,800</b>	<b>3,700</b>
Public	1,200	4,900	3,000	3,100	1,200	4,700	3,000	2,900
BIE	100	1,900	900	900	100	1,600	800	800
Private	20	‡	‡	‡	10	‡	‡	‡
DoDEA	20	‡	‡	‡	10	‡	‡	‡

‡ Reporting standards not met.

<sup>1</sup> Some fourth- and eighth-grade AI/AN students assessed in the mathematics multistage testing (MST) special study in 2019 completed the NIES student survey questionnaires.

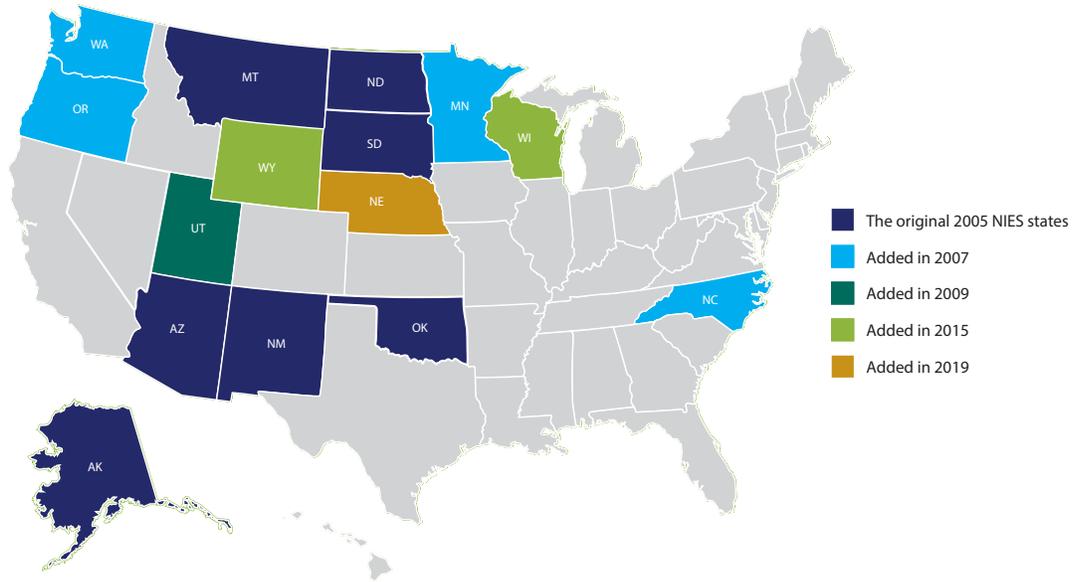
NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. DoDEA = Department of Defense Education Activity (overseas and domestic schools). NIES = National Indian Education Study. For overall, public, and BIE schools, the number of schools and the number of students are rounded to the nearest hundred. The number of private and Department of Defense schools are rounded to the nearest 10. 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), 2019 National Indian Education Study.

To obtain large enough samples to report reliable results for AI/AN students, schools with higher proportions of AI/AN students in selected states were oversampled. That is, the AI/AN students were selected for the NAEP assessments at a higher rate than they would be otherwise. All Bureau of Education (BIE) schools having grades 4 and/or 8 were also selected.

In 2019, NAEP was able to report NIES results for 15 states, with Nebraska being added in 2019 (exhibit 1). While samples of AI/AN students were large enough to report performance results for students in 15 states in 2019, in a few cases, not all states had large enough samples to report results for both reading and mathematics at grades 4 and 8 (see tables in the *State Results* section).

**Exhibit 1. Map of NIES 2019 states**



NOTE: NIES = National Indian Education Study.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

## Reporting Results

This report highlights results based on survey question responses from AI/AN students as well as responses from their teachers and school administrators. Survey question results are always reported as percentages of students (e.g., the percentage of students whose teachers reported on a particular factor). Students completed the survey questionnaire voluntarily and their responses were kept confidential. The privacy of individual students and their families is protected. Similarly, NAEP performance results are not reported for individual students.

Because AI/AN students' experiences may vary depending on the types of schools they attend, results for survey questions—as well as performance results—are reported for three mutually exclusive categories of schools as well as for an overall category:

- low density public schools (where less than 25 percent of all the students in the school were AI/AN);
- high density public schools (where 25 percent or more of all the students in the school were AI/AN);
- BIE schools; and
- all AI/AN students (includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense schools).

The public school categories (low density public and high density public) were defined by the Office of Indian Education (OIE).

Sixty percent of AI/AN fourth-graders attended low density public schools, 31 percent attended high density public schools, and 9 percent attended BIE schools. Similarly, 60 percent of AI/AN eighth-graders attended low density public schools, 32 percent attended high density public schools, and 8 percent attended BIE schools.

### ***What is the BIE? [www.bie.edu](http://www.bie.edu)***

*The Bureau of Indian Education (BIE), in the U.S. Department of Interior, supports elementary and secondary schools serving students across 23 states.*

*About two-thirds of the schools are tribally controlled under P.L. 93-638 Indian Self Determination Contracts or P.L. 100-297 Tribally Controlled Grant Schools Act, with the remaining schools operated by the BIE.*

*In addition, the BIE funds 33 tribal colleges, universities, tribal technical colleges, and postsecondary schools.*

## Making Comparisons

Readers should note that there are multiple possible comparisons within the data presented in this report. Tables and figures with more than two groups may simply present results without marking statistical significance with an indicator (e.g., an asterisk). Only those differences that are found to be statistically significant are discussed in the accompanying text in terms of being “higher” or “lower” and “more likely” or “less likely.” Along these lines, readers should note that numeric differences—even relatively “large” differences—are not always statistically different. Not all statistically significant differences are discussed.

It is important to note that a relationship between a variable (e.g., a response to a survey question) and a measure of educational achievement, like the ones presented in this report, does not imply that a variable causes differences in educational achievement. Many complex factors may influence differences across the school types presented in this report. These include, for example, educational policies and practices, available resources, and the demographic characteristics of the student body. When looking at results across school types, readers should note that AI/AN students attend schools with very different characteristics and that they represent various socioeconomic backgrounds (see table 31 for more information). The results presented in this report are descriptive and readers are cautioned not to draw causal inferences based solely on the results presented here.

# Survey Questionnaires

For NIES, in addition to assessing student performance in subjects such as reading and mathematics, NAEP also collects information from students, teachers, and school administrators through both NAEP and NIES questionnaires they complete as part of the NAEP administrations.

- Students complete a survey that asks them about their experiences inside and outside of school.
- Teachers complete a survey that asks them about their training and their reading and mathematics classroom practices.
- School administrators complete a survey that asks them about staffing, resources, and school activities.

This additional information helps put student performance results into context.

Because NAEP samples were designed to be representative of students but not of teachers or school administrators, it is important to note that survey results are always reported in terms of the percentages of students (e.g., 34 percent of fourth-grade AI/AN students in high density public schools had reading teachers who integrated materials about AI/AN culture or history into their lessons once a month).

In addition to the results from individual survey questions, this report also provides combined results across multiple conceptually-related survey questions in the form of composite variables. By combining results from multiple related questions, we can better understand the frequency or prevalence of factors beyond that which we would be able to observe from responses to a single question.

The *AI/AN Culture and Language* section of the report provides results from the following two composites:

- Cultural Knowledge
- Interest in Reading About Cultures

The *Perspectives Beyond the Average Score* section provides results from these composites:

- Engagement at School
- Perceptions About Effort in School

Each composite is made up of 3 or 4 survey questions. Only those students who responded to all questions that make up each of the composites are included in the analyses presented here. See the *Technical Notes* section for more information about the construction of the composite variables.

# AI/AN Culture and Language

This section of the report provides an in-depth look at the findings from the student, teacher, and school administrator survey questions that are focused on AI/AN culture and language. Experts in the field of AI/AN education—who guided the development of the NIES questionnaires—encourage readers to explore the following core background and contexts to bolster their understanding and interpretation of those findings.

*“I wish my school would teach our languages.”*

*~ AI/AN fourth-grader response from the NIES survey*

*“I would like to say I hope our culture should be passed on generation to generation.”*

*~ AI/AN eighth-grader response from the NIES survey*

**NIES was envisioned to fulfill a unique role within a distinctive historical and educational space.** Since its inception in 2005, the NIES program has been guided by presidential and legislative mandates focused on AI/AN cultures and languages. The program was initiated under the mandate articulated in President Bush’s Executive Order 13336 of 2004, which aimed “to recognize the unique educational and culturally related academic needs of American Indian and Alaska Native students consistent with the unique political and legal relationship of the Federal Government with tribal governments” and to meet academic goals “in a manner that is consistent with tribal traditions, languages, and cultures.” In the subsequent reauthorization set out in President Obama’s Executive Order 13592 of 2011, this balance between sovereignty, educational goals, and Native cultures and languages was restated, with the goals of the Executive Order to advance “tribal self-determination and to help ensure that AI/AN students have an opportunity to learn their Native languages and histories and receive complete and competitive educations.” The 2011 Executive Order also emphasized the unique relationship between AI/AN tribes and the U.S. government “as set forth in the Constitution of the United States, treaties, Executive Orders, and court decisions,” and “guided by a trust responsibility,” with the objective of “helping to ensure that the unique cultural, educational, and language needs of AI/AN students are met.”

NIES also functions within the larger legislative umbrella that directly addresses AI/AN cultures and languages. This legislation includes, but is not limited to, the following landmark bills:

- **The Native American Languages Act (NALA)** of 1990 recognized that “the status of the cultures and languages of Native Americans is unique and the United States has the responsibility to act together with Native Americans to ensure the survival of these unique cultures and languages.” It also included provisions to encourage states to remove teacher certification obstacles for qualified instructors of Native languages (e.g., tribal elders), in order “to support the use of Native American languages as a medium of instruction.”

- The **Esther Martinez Native American Languages Preservation Act** (2006)<sup>2</sup> provided grant funding for a range of language and culture initiatives: Native American language nests,<sup>3</sup> language survival schools, restoration programs, Native American language immersion programs, and Native American language and culture camps.
- The **Every Student Succeeds Act** (ESSA) of 2015 articulated provisions aimed “to ensure that Indian students gain knowledge and understanding of Native communities, languages, tribal histories, traditions, and cultures.” In addition, it provided the establishment of language immersion programs and “activities that recognize and support the unique cultural and educational needs of Indian children, and incorporate appropriately qualified tribal elders and seniors.”

The unifying threads of these presidential orders and pieces of legislation are the “culturally responsive schooling” of AI/AN students (Castagno & Brayboy, 2008, page 1) and the preservation of AI/AN culture and language. The NIES program exists at the crossroads of these factors, providing insight into the present state of AI/AN culture and language in the context of a large-scale assessment of reading and mathematics.

**NIES also occupies a critically important shared space within the educational community.** NIES functions within the challenging environment of a student population that is becoming more culturally and linguistically diverse—a population that grapples with cultural and linguistic mismatches between home and school environments (Ogbu, 1987; Phuntsog, 1998). These cultural and linguistic discontinuities highlight the importance of culturally relevant instruction for student success and the ability of educators to distinguish between language acquisition struggles and learning disabilities (Faircloth & Tippeconnic, 2000; Kim & Helphenstine, 2017; Thomas & Collier, 1997).

While establishing the research base for an examination of culture and language within NIES, the earliest NIES reports drew on Demmert and Towner (2003) and fairly dated (but core) research such as Tharp (1982) and Bacon, Kidd, and Seaberg (1982). Subsequent research led to a major revision to the 2015 NIES questionnaire and reports, improving the alignment of NIES with the guidance of AI/AN education research concerning the need to assess AI/AN culture and language in the educational context. For example, McCarty (2011, pages 14 and 15) found that “strong, additive, academically rigorous Native language and culture programs” support both language and culture preservation, as well as student academic achievement.<sup>4</sup> She goes on to argue that strong Native language and culture programs “enhance student motivation, self-esteem, and ethnic pride,” which are tied to measurable outcomes such as better attendance, improved retention, and enhanced community relations. Reyhner (2017, page 6) finds that school initiatives in

<sup>2</sup>The Esther Martinez Native American Languages Preservation Act was reauthorized in 2019.

<sup>3</sup>Cross-generational language immersion programs that connect AI/AN elders and youth for Heritage language learning.

<sup>4</sup>For McCarty, “strong” programs are consistent, immersive, and tied to core curriculum—in contradistinction to pullouts and sporadic programming, which lead to “subtractive bilingualism.”

this area have broader impacts: “Language and cultural revitalization efforts across Indian country are working to not just revitalize tribal languages; they are working to revitalize and heal Indian communities by restoring traditional cultural values.” As well as addressing the positive impacts for AI/AN students, Oakes and Maday (2009, page 9) acknowledged that culturally responsive approaches for Native students also “hold potential for enriching the experience of non-Native learners.”

**NIES can become a culture and language research bridge.** As the NIES program moves into the future, it has the opportunity to bridge Native and non-Native educators and researchers as envisioned in the originating 2004 Executive Order which aimed:

to seek ways to develop and enhance the capacity of tribal governments, tribal universities and colleges, and schools and educational programs serving American Indian and Alaska Native students and communities to carry out, disseminate, and implement education research, as well as to develop related partnerships or collaborations with non-tribal universities, colleges, and research organizations. (Executive Order No. 13336, 2004)

A more granular aspect of this opportunity is also articulated in the same Executive Order as “developing a national network of individuals, organizations, and communities to share best practices in AI/AN education and encouraging them to implement these practices.” NIES has an integral voice in these potential conversations, from inviting researchers to engage with questions that arise from its particular dataset to initiating collaborations around culturally responsive assessment and how those assessment approaches could potentially inform NAEP as a whole (Montenegro & Jankowski, 2017; Trumbull & Nelson-Barber, 2019). With a growing population of young dual language learners reflecting a “superdiversity” in schools around the country (Park, Zong, & Batalova, 2018), emerging AI/AN educational practices such as Native American language nests offer opportunities for shared practices—with NIES as a potential bridging partner.

NIES can potentially function as an important bridge that not only provides learning *about* the AI/AN educational community, but can also provide opportunities for learning *from* the AI/AN community. In many ways, the goals of NIES align with and naturally grow out of the ideas of Cajete’s groundbreaking work *Look to the Mountain: An Ecology of Indigenous Education*. His “exploration of Indigenous education attempts to develop insights into the community of shared metaphors and understandings that are specific to Indian cultures, yet reflect the nature of human learning as a whole” (Cajete, 1994, page 21). With this enveloping context in mind, this section will take a deep dive into the results from the 2019 surveys of students, teachers, and school administrators focused on AI/AN cultures and languages.

## How much do AI/AN students know about their culture?

The 2019 NIES student, teacher, and school surveys include questions about various aspects of AI/AN cultural knowledge and how that knowledge is shared with students. As part of the grade 4 survey, AI/AN students were asked a single question about how much they know about their American Indian tribe or Alaska Native group. Most grade 4 AI/AN students reported having at least “a little” knowledge of their AI/AN tribe or group, with 17 percent reporting knowing “nothing” (table 2). About 19 to 23 percent of grade 4 AI/AN students reported having “a lot” of cultural knowledge across school types.

**Table 2. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on the extent of their cultural knowledge, by school type/density: 2019**

Grade and student survey question/composite	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: How much do you know about your American Indian tribe or Alaska Native group? For example, you may know about the history, traditions, or arts and crafts of your tribe or group.</b>				
Nothing	17	18	21	18 <sup>b</sup>
A little	31	30	33	30
Some	32	32	28	29
A lot	20	19	19	23 <sup>b</sup>
<b>Grade 8: Amount of student cultural knowledge composite</b>				
Nothing	18	23	12 <sup>a</sup>	5 <sup>a,b</sup>
A little	27	29	26	16 <sup>a,b</sup>
Some	33	30	37 <sup>a</sup>	45 <sup>a,b</sup>
A lot	22	18	25 <sup>a</sup>	34 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

The grade 8 NIES survey also includes questions about how much students know about the culture of their AI/AN tribe or group, and these questions have been aggregated into a composite. This composite is made up of three survey questions included in the grade 8 questionnaire and represents the amount of knowledge students report having about multiple aspects of their culture. Specifically, this composite reflects how much students reported knowing about

- their AI/AN history;
- their AI/AN traditions, ways of life, and customs; and
- issues today that are important to AI/AN people.

Across school types, most (77 to 95 percent) grade 8 AI/AN students reported having at least “a little” knowledge of their AI/AN history, traditions, and current issues. Eighth-graders attending BIE schools were the least likely to report having no knowledge, with 5 percent of those students reporting no AI/AN cultural knowledge. By comparison, students in schools with lower proportions of AI/AN students were more likely to report knowing “nothing,” with 12 percent of students in high density schools and 23 percent of students in low density schools reporting having no AI/AN cultural knowledge.

More generally, the data show an unsurprising pattern: students from schools with higher proportions of AI/AN students reported having more AI/AN cultural knowledge than students from schools with lower proportions of AI/AN students. Eighth-graders in BIE schools reported more knowledge of AI/AN culture than their peers in other types of schools, with 79 percent of them reporting “some” or “a lot” of knowledge, compared to 62 percent of high density public school students and 48 percent of low density public school students.

## Where do AI/AN students learn about their culture?

A primary way for AI/AN students to learn about their culture is through other people: family members, friends, teachers, tribal representatives or elders, and others who share their knowledge of AI/AN history, traditions, and other cultural memories with younger generations. These exchanges can take several forms, including storytelling, classroom lessons, or even hands-on lessons in traditional arts and crafts. As part of the 2019 NIES questionnaire, AI/AN students in both grades 4 and 8 were asked about who taught them most of their cultural knowledge.

Across grades, school types, and topics, AI/AN students consistently identified family members as the most common sources of cultural knowledge. Family members were identified as the people who taught students the most about AI/AN history with 45 percent of grade 4 students and 60 percent of grade 8 students so reporting (table 3). Similarly, 45 percent of grade 4 students and 57 percent of grade 8 students identified family members as the people who taught them the most about AI/AN traditions. In addition, fourth-graders were asked about arts and crafts, and eighth-graders were asked about current issues: 36 percent of AI/AN fourth-graders reported that they learned the most about arts and crafts from their families and 45 percent of AI/AN eighth-graders said that they learned the most about current issues important to AI/AN people from their family members (table 4).

Teachers were the second most commonly identified group of people important for educating students on AI/AN cultural topics. Twenty-three percent of grade 4 students and 17 percent of grade 8 students identified teachers as the group that taught them the most of what they know about AI/AN traditions. AI/AN students also reported teachers as the second most commonly identified group of people they learned the most from on the topics of arts and crafts (25 percent for grade 4) and current issues important to AI/AN people (21 percent for grade 8).

**Table 3. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on learning about AI/AN history and traditions, by school type/density: 2019**

Grade and student survey question	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: Who taught you most of what you know about AI/AN history?</b>				
No one has taught me about AI/AN history	12	12	14	16 <sup>a</sup>
Family members	45	47	47	43 <sup>b</sup>
Friends	5	5	6	7
Teachers	23	23	19	19
Tribal representatives or elders	6	6	6	7
Someone else	9	8	7	8
<b>Grade 8: Who taught you most of what you know about AI/AN history?</b>				
No one has taught me about AI/AN history	8	11	5 <sup>a</sup>	2 <sup>a,b</sup>
Family members	60	59	61	59
Friends	1	1	1	2
Teachers	17	17	16	18
Tribal representatives or elders	8	7	11 <sup>a</sup>	12 <sup>a</sup>
Someone else	5	5	5	7 <sup>b</sup>
<b>Grade 4: Who taught you most of what you know about AI/AN traditions (ways of life, customs)?</b>				
No one has taught me about AI/AN traditions	15	14	18 <sup>a</sup>	17
Family members	45	48	45	41 <sup>a,b</sup>
Friends	4	3	5 <sup>a</sup>	7 <sup>a,b</sup>
Teachers	23	22	19	18 <sup>a</sup>
Tribal representatives or elders	7	6	7	10 <sup>a,b</sup>
Someone else	7	7	6	7 <sup>b</sup>
<b>Grade 8: Who taught you most of what you know about AI/AN traditions (ways of life, customs)?</b>				
No one has taught me about AI/AN traditions	12	15	8 <sup>a</sup>	3 <sup>a,b</sup>
Family members	57	56	59	58
Friends	2	2	2	2 <sup>a</sup>
Teachers	17	16	17	18
Tribal representatives or elders	9	8	11 <sup>a</sup>	14 <sup>a,b</sup>
Someone else	3	3	3	4 <sup>b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

**Table 4. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on learning about AI/AN arts and crafts or important issues, by school type/density: 2019**

Grade and student survey question	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: Who taught you most of what you know about AI/AN arts and crafts?</b>				
No one has taught me about AI/AN arts and crafts	19	19	20	17
Family members	36	37	38	37
Friends	6	6	6	8
Teachers	25	24	22	23
Tribal representatives or elders	8	6	9	10 <sup>a</sup>
Someone else	6	7	6	6
<b>Grade 8: Who taught you most of what you know about issues today that are important to AI/AN people?</b>				
No one has taught me about issues today that are important to AI/AN people	19	25	15 <sup>a</sup>	8 <sup>a,b</sup>
Family members	45	44	47	44
Friends	2	2	3	3
Teachers	21	18	21	28 <sup>a,b</sup>
Tribal representatives or elders	9	7	11 <sup>a</sup>	14 <sup>a,b</sup>
Someone else	4	4	4	3

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

Another avenue for AI/AN students to learn about their culture is to attend or get involved in cultural events. Demonstrations and performances give life to the ideas that students may have about their heritage, and students’ participation in ceremonies and performances ensures that future generations of AI/AN people will also get the opportunity to have these cultural experiences as well.

As part of the 2019 NIES questionnaire, AI/AN students were asked a series of questions about whether they had attended or participated in AI/AN cultural events. Overall, 19 percent of grade 4 AI/AN students reported that they attended AI/AN ceremonies and gatherings “several times a year” (table 5). Grade 8 students were asked more specific questions, with 25 percent of AI/AN eighth-graders reporting that they participated in ceremonies and gatherings for their own tribes or groups “several times a year” and 21 percent reporting that they participated “several times a year” in events that brought many different tribes or groups together. Finally, as a means to capture participation in other types of perhaps less official cultural events or activities, 22 percent of AI/AN eighth-graders also reported participating in “other AI/AN activities” at the same frequency. The percentage of AI/AN students participating at this frequency varies by school type, such that the percentage of grades 4 and 8 students in BIE schools reporting this frequency of participation was higher than the percentage of their peers in low or high density public schools. Twenty-four percent of grade 4 BIE students reported attending events “several times a year,” and 32 to 46 percent of grade 8 students reported that they participate in ceremonies, gatherings, and other activities “several times a year.” In low density public schools, attendance and participation was reported by 16 to 19 percent of AI/AN students across grades.

On the other end of the spectrum, nonparticipation in AI/AN cultural events by AI/AN students is also somewhat common. Almost half (45 percent) of grade 4 students reported having “never” gone to an AI/AN ceremony or gathering, and 38 to 42 percent of grade 8 students reported having “never” participated in ceremonies, gatherings, or other AI/AN activities, regardless of whether the event was held by their own tribe. These results vary by school type at grades 4 and 8, with a general pattern of students in schools with higher AI/AN student densities being less likely to report “never” participating in AI/AN ceremonies and gatherings.

**Table 5. Percentage distribution of fourth- and eighth-grade AI/AN students who reported how often they have participated in AI/AN activities, by school type/density: 2019**

Grade and student survey question	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: How often do you go to AI/AN ceremonies and gatherings?</b>				
Never	45	48	45	40 <sup>a,b</sup>
Every few years	19	18	21	22 <sup>a</sup>
At least once a year	17	18	16	15
Several times a year	19	16	18	24 <sup>a,b</sup>
<b>Grade 8: How often have you participated in ceremonies and gatherings for people from your American Indian tribe or Alaska Native group?</b>				
Never	38	46	32 <sup>a</sup>	15 <sup>a,b</sup>
Every few years	15	15	15	14
At least once a year	22	21	24	26 <sup>a</sup>
Several times a year	25	19	29 <sup>a</sup>	46 <sup>a,b</sup>
<b>Grade 8: How often have you participated in ceremonies and gatherings that bring people together from many different American Indian tribes or Alaska Native groups?</b>				
Never	42	51	35 <sup>a</sup>	19 <sup>a,b</sup>
Every few years	17	15	18 <sup>a</sup>	18 <sup>a</sup>
At least once a year	20	17	24 <sup>a</sup>	29 <sup>a,b</sup>
Several times a year	21	18	23	34 <sup>a,b</sup>
<b>Grade 8: How often have you participated in other AI/AN activities?</b>				
Never	39	45	31 <sup>a</sup>	19 <sup>a,b</sup>
Every few years	17	16	19	20 <sup>a</sup>
At least once a year	22	19	25 <sup>a</sup>	28 <sup>a,b</sup>
Several times a year	22	19	25 <sup>a</sup>	32 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## How do teachers contribute to AI/AN student cultural knowledge?

Teachers can be an important source of cultural knowledge for AI/AN students. In addition to sharing AI/AN cultural information as a standalone subject, teachers have the opportunity to share cultural knowledge in the context of teaching core subjects. When teachers integrate information about AI/AN culture and history into reading/language arts and mathematics lessons, AI/AN students have an additional opportunity to consider the importance of their people's traditions and ideas. As part of the 2019 NIES questionnaire, teachers were asked whether these topics were being integrated into reading and mathematics lessons at their school. The results shown in the following tables 6 through 8 are based on teachers selecting the response option for each of the questions that best reflected how often they engaged in specific teaching practices.

These data suggest that a majority of AI/AN students had teachers who integrated AI/AN culture or history into reading lessons. Given AI/AN traditions of storytelling, reading is a natural fit for inclusion of AI/AN topics. Overall, 89 percent of grade 4 students and 76 percent of grade 8 students had teachers who reported using these concepts in reading lessons "at least once a year" or more. Some AI/AN students had these opportunities regularly, with 18 percent of grade 4 students and 11 percent of grade 8 students having teachers who integrated these concepts into lessons on at least a weekly basis (table 6).

Among BIE school students, 35 percent of grade 4 and 44 percent of grade 8 students had teachers who reported integrating AI/AN culture or history into reading lessons "at least once a week" or more. In contrast, AI/AN students in low density public schools were less likely than students in BIE schools to have teachers who integrated AI/AN cultural and historical concepts into reading lessons at this frequency. About 5 percent of grade 4 students and less than 1 percent of grade 8 students had teachers who reported using these concepts at least weekly. AI/AN students in low density public schools were more likely than students in BIE schools or high density public schools to have teachers who reported using these concepts in reading lessons "at least once a year" or not at all.



**Table 6. Percentage distribution of fourth- and eighth-grade AI/AN students, whose teachers reported how often they integrate materials about AI/AN culture or history into their reading/language arts lessons, by school type/density: 2019**

How often do you integrate materials about AI/AN culture or history into your reading/language arts lessons?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Never	11	18	6 <sup>a</sup>	2 <sup>a,b</sup>
At least once a year	41	55	41 <sup>a</sup>	18 <sup>a,b</sup>
At least once a month	30	22	34 <sup>a</sup>	45 <sup>a,b</sup>
At least once a week	12	4	13	25 <sup>a,b</sup>
Every day or almost every day	6	1	6 <sup>a</sup>	11 <sup>a,b</sup>
<b>Grade 8</b>				
Never	24	33	15 <sup>a</sup>	# <sup>a,b</sup>
At least once a year	49	57	43 <sup>a</sup>	21 <sup>a,b</sup>
At least once a month	16	10	27 <sup>a</sup>	35 <sup>a,b</sup>
At least once a week	6	#	12 <sup>a</sup>	29 <sup>a,b</sup>
Every day or almost every day	5	#	3	15 <sup>b</sup>

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense schools. Detail may not sum to totals because of rounding. Teachers were prompted to select **one** of the response options shown in the questionnaire. Analysis is based on mutually exclusive, single responses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

Some teachers who taught mathematics to AI/AN students reported integrating AI/AN culture or history into their instruction, but 67 percent of grade 4 students and 66 percent of grade 8 students had teachers who reported “never” doing so (table 7). Of the students whose teachers do integrate AI/AN culture and history topics into their lessons, they were in general most likely to have these lessons “at least once a year.” The teachers of 18 percent of grade 4 students and 22 percent of grade 8 students chose this response. By contrast, about 9 percent of grade 4 students and 6 percent of grade 8 students had teachers who reported integrating AI/AN culture and history topics into their math lessons “at least once a week” or more. These numbers varied by school type, with a higher percentage of students attending BIE schools having mathematics teachers who integrated AI/AN culture and history compared to their peers attending high density public schools.

**Table 7. Percentage distribution of fourth- and eighth-grade AI/AN students, whose teachers reported how often they integrate materials about AI/AN culture or history into their mathematics lessons, by school type/density: 2019**

How often do you integrate materials about AI/AN culture or history into your mathematics lessons?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Never	67	78	53 <sup>a</sup>	33 <sup>a,b</sup>
At least once a year	18	18	26 <sup>a</sup>	26 <sup>a</sup>
At least once a month	7	4	11 <sup>a</sup>	24 <sup>a,b</sup>
At least once a week	7	1	6 <sup>a</sup>	14 <sup>a,b</sup>
Every day or almost every day	1	#	4	4
<b>Grade 8</b>				
Never	66	81	51 <sup>a</sup>	32 <sup>a,b</sup>
At least once a year	22	18	31 <sup>a</sup>	27
At least once a month	6	1	12 <sup>a</sup>	17 <sup>a</sup>
At least once a week	3	#	6	20 <sup>b</sup>
Every day or almost every day	3	#	#	4

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense schools. Detail may not sum to totals because of rounding. Teachers were prompted to select **one** of the response options shown in the questionnaire. Analysis is based on mutually exclusive, single responses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

In the 2019 NIES survey, teachers also answered additional, more specific, questions about the integration of AI/AN culture into the curriculum. Three of these questions inquired about the frequency with which teachers gave students assignments featuring literature by AI/AN authors and with AI/AN themes and current events. Overall, most students were exposed to all of these topics (table 8). According to their teachers, 80 to 90 percent of AI/AN students at grades 4 and 8 read literature with AI/AN themes “at least once a year” or more, and 8 to 12 percent read these materials at least weekly. Concerning AI/AN literature, 74 to 79 percent of AI/AN students at both grades read works by AI/AN authors “at least once a year” or more, and 6 to 7 percent read literature by AI/AN authors “at least once a week” or more. AI/AN students also had teachers who asked them to read about or discuss current issues of concern to the AI/AN community. Sixty-four to 66 percent of AI/AN students at grades 4 and 8 spent class time reading about or discussing these issues “at least once a year” or more, and 9 to 16 percent did so “at least once a week” or more. These responses followed a pattern similar to that of other questions, with students from BIE schools generally more likely to have teachers who integrated AI/AN authors, themes, and current issues into their instruction than did AI/AN students from low or high density public schools.

**Table 8. Percentage distribution of fourth- and eighth-grade AI/AN students, whose teachers reported how often they have their students read literature with AI/AN themes, by school type/density: 2019**

Grade and student survey question	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: How often do you have your students read literature with AI/AN themes?</b>				
Never	10	15	10	1 <sup>a</sup>
At least once a year	53	65	52 <sup>a</sup>	33 <sup>a,b</sup>
At least once a month	25	16	31 <sup>a</sup>	50 <sup>a,b</sup>
At least once a week	11	3	4	13 <sup>a,b</sup>
Every day or almost every day	1	#	2	2 <sup>a</sup>
<b>Grade 8: How often do you have your students read literature with AI/AN themes?</b>				
Never	20	26	13 <sup>a</sup>	# <sup>a,b</sup>
At least once a year	57	65	53 <sup>a</sup>	30 <sup>a,b</sup>
At least once a month	15	8	25 <sup>a</sup>	43 <sup>a,b</sup>
At least once a week	4	#	8 <sup>a</sup>	19 <sup>a,b</sup>
Every day or almost every day	4	#	2	8 <sup>b</sup>
<b>Grade 4: How often do you have your students read literature by AI/AN authors?</b>				
Never	21	28	15 <sup>a</sup>	8 <sup>a</sup>
At least once a year	51	61	58	37 <sup>a,b</sup>
At least once a month	22	9	22 <sup>a</sup>	45 <sup>a,b</sup>
At least once a week	6	2	3	8 <sup>a,b</sup>
Every day or almost every day	1	#	1	2 <sup>a</sup>
<b>Grade 8: How often do you have your students read literature by AI/AN authors?</b>				
Never	26	34	19 <sup>a</sup>	7 <sup>a,b</sup>
At least once a year	53	59	47 <sup>a</sup>	41 <sup>a</sup>
At least once a month	14	7	27 <sup>a</sup>	29 <sup>a</sup>
At least once a week	3	#	7 <sup>a</sup>	15 <sup>a,b</sup>
Every day or almost every day	4	#	1	7 <sup>b</sup>
<b>Grade 4: How often do you have your students read about, or discuss, current issues of concern to the AI/AN community?</b>				
Never	34	46	30 <sup>a</sup>	5 <sup>a,b</sup>
At least once a year	36	43	37	34 <sup>a</sup>
At least once a month	14	10	26 <sup>a</sup>	35 <sup>a,b</sup>
At least once a week	15	1	6 <sup>a</sup>	22 <sup>a,b</sup>
Every day or almost every day	1	1	1	4 <sup>a,b</sup>
<b>Grade 8: How often do you have your students read about, or discuss, current issues of concern to the AI/AN community?</b>				
Never	36	47	24 <sup>a</sup>	11 <sup>a,b</sup>
At least once a year	42	48	39	13 <sup>a,b</sup>
At least once a month	13	5	24 <sup>a</sup>	43 <sup>a,b</sup>
At least once a week	5	#	13 <sup>a</sup>	23 <sup>a,b</sup>
Every day or almost every day	4	#	1	10 <sup>b</sup>

# Rounds to zero.

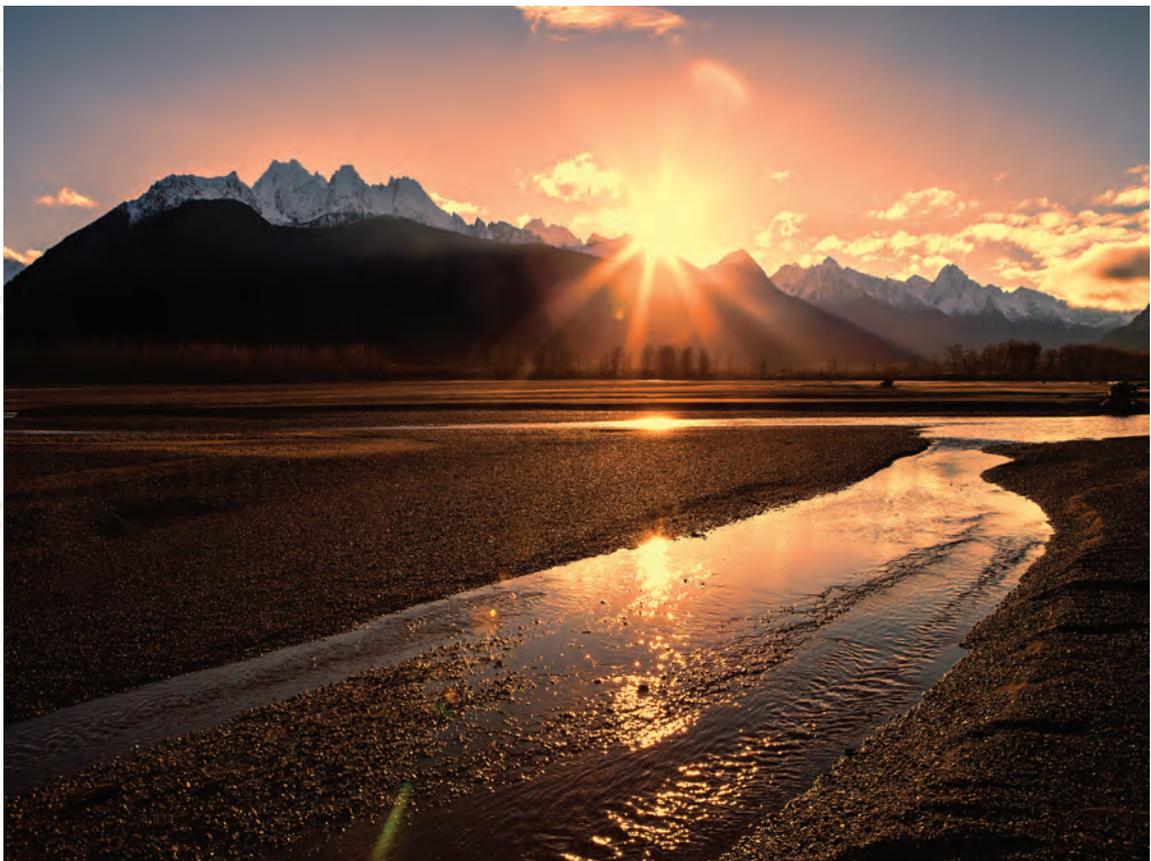
<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense schools. Detail may not sum to totals because of rounding. Teachers were prompted to select **one** of the response options shown in the questionnaire. Analysis is based on mutually exclusive, single responses.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

## How does school administration contribute to AI/AN student cultural knowledge?

In 2019, school administrators were also asked questions about AI/AN cultural topics in school curriculum, reporting on whether students at their schools receive instruction on several aspects of AI/AN culture. Similar to the results of the teacher questions, in general, AI/AN students at grades 4 and 8 attending BIE schools were more likely than students from low or high density public schools to have school administrators who reported that an AI/AN-related topic was part of instruction (table 9). Regarding instruction on AI/AN tribal history, traditions and customs, and arts topics, a majority of AI/AN students at both grades (from 68 to 72 percent at grade 4 and from 59 to 70 percent at grade 8) had school administrators who reported that these topics were a part of student instruction. In the case of BIE schools, 93 to 100 percent of students had school administrators who reported that these topics were part of school instruction.



**Table 9. Percentage distribution of fourth- and eighth-grade AI/AN students, whose school administrators reported whether students in their school receive instruction about AI/AN cultures in various areas, by school type/density: 2019**

Do students in your school receive instruction about AI/AN cultures in any of the following areas?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: History of tribes or cultural groups</b>				
Yes	72	60	79 <sup>a</sup>	93 <sup>a,b</sup>
No	28	40	21 <sup>a</sup>	7 <sup>a,b</sup>
<b>Grade 8: History of tribes or cultural groups</b>				
Yes	70	57	88 <sup>a</sup>	95 <sup>a</sup>
No	30	43	12 <sup>a</sup>	5 <sup>a</sup>
<b>Grade 4: Traditions and customs</b>				
Yes	71	60	80 <sup>a</sup>	97 <sup>a,b</sup>
No	29	40	20 <sup>a</sup>	3 <sup>a,b</sup>
<b>Grade 8: Traditions and customs</b>				
Yes	65	50	86 <sup>a</sup>	98 <sup>a,b</sup>
No	35	50	14 <sup>a</sup>	2 <sup>a,b</sup>
<b>Grade 4: Arts, crafts, music, or dance</b>				
Yes	68	54	79 <sup>a</sup>	98 <sup>a,b</sup>
No	32	46	21 <sup>a</sup>	2 <sup>a,b</sup>
<b>Grade 8: Arts, crafts, music, or dance</b>				
Yes	59	43	79 <sup>a</sup>	100 <sup>a,b</sup>
No	41	57	21 <sup>a</sup>	# <sup>a,b</sup>
<b>Grade 4: Tribal or village government</b>				
Yes	38	24	47 <sup>a</sup>	66 <sup>a,b</sup>
No	62	76	53 <sup>a</sup>	34 <sup>a,b</sup>
<b>Grade 8: Tribal or village government</b>				
Yes	37	28	51 <sup>a</sup>	87 <sup>a,b</sup>
No	63	72	49 <sup>a</sup>	13 <sup>a,b</sup>
<b>Grade 4: Current events and issues important to tribes or cultural groups</b>				
Yes	40	23	55 <sup>a</sup>	68 <sup>a,b</sup>
No	60	77	45 <sup>a</sup>	32 <sup>a,b</sup>
<b>Grade 8: Current events and issues important to tribes or cultural groups</b>				
Yes	44	36	57 <sup>a</sup>	82 <sup>a,b</sup>
No	56	64	43 <sup>a</sup>	18 <sup>a,b</sup>

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

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SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

Administrators also reported on whether tribal or village government and current events important to tribes or cultural groups were a part of student instruction. According to the administrators, less than half of students (23 to 36 percent) in low density public schools were exposed to these topics as a part of instruction. By contrast, high density public schools and BIE schools had higher percentages. Sixty-six to 68 percent of grade 4 students and 82 to 87 percent of grade 8 students in BIE schools had administrators who reported that these topics were covered as a part of instruction. Forty-seven to 55 percent of grade 4 students and 51 to 57 percent of grade 8 students in high density public schools had school administrators who did so.

In addition to including AI/AN culture and history in the classroom, having members of the AI/AN community visit the school is another way to share cultural knowledge and related information. As part of the 2019 NIES questionnaire, school administrators were asked about the frequency of visits from members of the AI/AN community to discuss topics relevant to AI/AN students.

The results from these questions showed that AI/AN students had opportunities for exposure to AI/AN cultural information through school visits from AI/AN community members. Overall, 54 to 57 percent of grade 4 students and 51 to 55 percent of grade 8 students attended schools where these visits occurred at least once during a typical school year (tables 10 and 11). In the case of BIE school students, 55 to 56 percent of grade 4 students and 62 to 68 percent of grade 8 students had school administrators who reported that AI/AN community members visited their schools to discuss education issues or traditions and culture three or more times a year. AI/AN students in low density public schools were less likely to have these experiences, with over half of these students attending schools that never have AI/AN community visitors.



**Table 10. Percentage distribution of fourth- and eighth-grade AI/AN students, whose school administrators reported how many times a member of the AI/AN community visited the school to discuss education issues with students and staff, other than a conference regarding an individual student, by school type/density: 2019**

In a typical school year, how many times has a member of the AI/AN community visited the school to discuss education issues with students and staff, other than a conference regarding an individual student?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Never	39	58	19 <sup>a</sup>	16 <sup>a</sup>
1–2 times	24	17	37 <sup>a</sup>	28 <sup>a</sup>
3 or more times	30	15	39 <sup>a</sup>	55 <sup>a,b</sup>
I don't know	7	10	5	1 <sup>a</sup>
<b>Grade 8</b>				
Never	41	51	22 <sup>a</sup>	9 <sup>a,b</sup>
1–2 times	22	20	27	19
3 or more times	29	20	45 <sup>a</sup>	62 <sup>a,b</sup>
I don't know	8	9	5	9

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

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SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

**Table 11. Percentage distribution of fourth- and eighth-grade AI/AN students, whose school administrators reported how many times a member of the AI/AN community visited the school to share AI/AN traditions and culture with students and staff, by school type/density: 2019**

In a typical school year, how many times has a member of the AI/AN community visited the school to share AI/AN traditions and culture with students and staff?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Never	37	55	10 <sup>a</sup>	9 <sup>a</sup>
1–2 times	30	26	51 <sup>a</sup>	35 <sup>a,b</sup>
3 or more times	27	10	37 <sup>a</sup>	56 <sup>a,b</sup>
I don't know	6	10	2 <sup>a</sup>	1 <sup>a</sup>
<b>Grade 8</b>				
Never	40	55	11 <sup>a</sup>	7 <sup>a</sup>
1–2 times	33	26	52 <sup>a</sup>	22 <sup>b</sup>
3 or more times	21	11	35 <sup>a</sup>	68 <sup>a,b</sup>
I don't know	5	7	3	3 <sup>a</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## Do AI/AN students see their culture represented in their educators?

Beyond questions of AI/AN culture represented in class lessons and visits from members of the AI/AN community, another important way AI/AN students can see themselves represented in their school is through the presence of AI/AN teachers and staff. AI/AN adults in positions of authority can act as role models for AI/AN students, and some research indicates that racial-minority students can benefit from working with a teacher of their own race (Egalite, Kisida, & Winters, 2015; Gershenson, Holt, & Papageorge, 2016). As part of the 2019 NIES questionnaire, school administrators were asked about the presence of AI/AN teachers and staff at their schools.

The results from these questions yield two important observations. First, though some schools have meaningful AI/AN representation among their faculty and staff, some AI/AN students attend schools where none or almost none of the adults share their native heritage. In low density public schools, 46 to 47 percent of students at grades 4 and 8 had no AI/AN teachers at their schools, and 40 to 41 percent of students had no AI/AN staff (table 12). Second, schools with a higher density of AI/AN students, including BIE schools, are more likely to have higher concentrations of AI/AN faculty and staff in general. According to BIE school administrators, for 44 to 52 percent of the students at grades 4 and 8, more than half of the teachers were AI/AN, while for 44 to 66 percent of the students, more than half of the staff members were AI/AN.



**Table 12. Percentage distribution of fourth- and eighth-grade AI/AN students, by school-identified percentage of AI/AN teachers and staff in their schools and school type/density: 2019**

Grade and percentage of AI/AN teachers and staff at school	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: Percentage of AI/AN teachers at your school</b>				
0%	27	46	6 <sup>a</sup>	5 <sup>a</sup>
1–5%	18	24	10 <sup>a</sup>	9 <sup>a</sup>
6–10%	6	3	15 <sup>a</sup>	11 <sup>a</sup>
11–25%	17	5	19 <sup>a</sup>	14 <sup>a</sup>
26–50%	7	#	21 <sup>a</sup>	9 <sup>a,b</sup>
51–75%	8	1	14	16
76–100%	5	#	8	37 <sup>b</sup>
I don't know	13	21	8 <sup>a</sup>	#
<b>Grade 8: Percentage of AI/AN teachers at your school</b>				
0%	29	47	1 <sup>a</sup>	6 <sup>a,b</sup>
1–5%	26	28	25	22
6–10%	8	4	18 <sup>a</sup>	4 <sup>b</sup>
11–25%	10	2	18 <sup>a</sup>	7 <sup>a,b</sup>
26–50%	8	#	23	17
51–75%	3	1	4	13 <sup>a,b</sup>
76–100%	4	#	6	31 <sup>b</sup>
I don't know	12	17	5 <sup>a</sup>	#
<b>Grade 4: Percentage of AI/AN staff other than teachers at your school</b>				
0%	25	41	1 <sup>a</sup>	#
1–5%	21	30	17 <sup>a</sup>	9 <sup>a,b</sup>
6–10%	8	5	15 <sup>a</sup>	4 <sup>b</sup>
11–25%	6	1	18 <sup>a</sup>	6 <sup>a,b</sup>
26–50%	11	#	13 <sup>a</sup>	15 <sup>a</sup>
51–75%	4	#	10	17
76–100%	11	#	19	49 <sup>b</sup>
I don't know	14	23	6 <sup>a</sup>	#
<b>Grade 8: Percentage of AI/AN staff other than teachers at your school</b>				
0%	25	40	1	6 <sup>a</sup>
1–5%	27	35	18 <sup>a</sup>	7 <sup>a,b</sup>
6–10%	8	4	17 <sup>a</sup>	15 <sup>a</sup>
11–25%	6	1	14 <sup>a</sup>	13 <sup>a</sup>
26–50%	9	1	24	15 <sup>b</sup>
51–75%	5	1	12 <sup>a</sup>	16 <sup>a</sup>
76–100%	7	1	8 <sup>a</sup>	28 <sup>a,b</sup>
I don't know	12	18	5 <sup>a</sup>	#

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## Are AI/AN students interested in reading about cultures?

Student interest is key to learning. Motivation research suggests that intrinsic motivation is related to student learning outcomes. The depth of knowledge that AI/AN students possess about cultures and traditions is determined in part by their interest in learning about the topic (Cerasoli, Nicklin, & Ford, 2014). Therefore, exploring AI/AN student interest in the overall topic of culture is a natural next step for this section of the report.

As part of the 2019 NIES survey, AI/AN students in grades 4 and 8 were asked questions about their interest in AI/AN culture and culture in general. Similar to the AI/AN cultural knowledge questions in the grade 8 survey, these questions have been aggregated into a composite, *Interest in Reading About Cultures*. Specifically, students were asked to report the extent to which they thought the three following statements described a person like them:

- When my teacher talks about AI/AN history or culture, I try to read more about it.
- I enjoy reading about AI/AN people.
- I enjoy reading about people who have different traditions and cultures (ways of life, customs) than I have.

Overall, the largest proportion of AI/AN students in both grades reported that these statements were “a little like me,” with 49 to 55 percent of students selecting this response (table 13). The second largest proportion of grade 4 students (25 percent) reported that these statements were “not like me,” but data from grade 8 students showed a different pattern, with the second largest proportion of grade 8 students (29 percent) reporting that the statements were “a lot like me.”

**Table 13. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on their interest in reading about cultures, by school type/density: 2019**

Extent to which survey statements about reading about cultures described a person like the student	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Not like me	25	26	26	23 <sup>b</sup>
A little like me	55	51	57 <sup>a</sup>	57 <sup>a</sup>
A lot like me	20	23	17 <sup>a</sup>	20 <sup>b</sup>
<b>Grade 8</b>				
Not like me	22	26	20 <sup>a</sup>	13 <sup>a,b</sup>
A little like me	49	46	50	53 <sup>a,b</sup>
A lot like me	29	28	30	34 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

There were also some differences in student responses based on school type. In low density public schools, 51 percent of grade 4 AI/AN students reported that the statements were “a little like me.” By contrast, higher percentages of AI/AN students (57 percent) in high density public schools and BIE schools provided the same answer. As for the other responses from grade 4 students, a higher percentage of students in low density public schools (23 percent) than in high density public schools (17 percent) reported that the statements were “a lot like me.” In grade 8, the results for BIE school students were different than those for AI/AN students in high density and low density public schools, with a smaller percentage of students reporting that the statements were “not like me” (13 percent for BIE compared to 20 percent for high density and 26 percent for low density) and a larger percentage of students reporting that the statements were “a lot like me” (34 percent for BIE compared to 30 percent for high density and 28 percent for low density).

## Do AI/AN students have access to books and other media about AI/AN people?

School resources are a consideration for AI/AN students’ ability to read about cultures. For students in general, libraries provide important access to the Internet, books, and other media concerning cultural topics. Libraries and other kinds of media centers are the only access points to the Internet available for some AI/AN students, for whom access can be limited (American Indian Policy Institute, 2019). As part of the 2019 NIES survey, students were asked about their access to books, videos, and other materials about AI/AN people. In general, most students said they had access to a library or media center with materials about AI/AN people, with 61 percent of grade 4 and 75 percent of grade 8 AI/AN students answering “yes” (table 14). Student responses to this question were similar across school types.

**Table 14.** Percentage distribution of fourth- and eighth-grade AI/AN students who reported on whether they have access to a library, media center, or resource center with books, videos, or other materials about AI/AN people, by school type/density: 2019

In school, do you have access to a library, media center, or resource center with books, videos, or other materials (including Internet resources) about AI/AN people?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Yes	61	60	59	58
No	39	40	41	42
<b>Grade 8</b>				
Yes	75	74	76	76
No	25	26	24	24

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

Having access to media is important for AI/AN students, but that access is only meaningful if students take advantage of it. This access can be provided by libraries and other media centers in school as well as outside of school. Students must be motivated to access these materials, whether to complete school assignments or for their own interests. The 2019 NIES survey included questions about how frequently students used books and other media about AI/AN people during the school year.

Student responses to these questions show that various percentages of AI/AN students did not regularly use books, videos, or other materials about AI/AN people in school or outside of school, with 35 to 43 percent of AI/AN students at grades 4 and 8 who did not use such media in school and 46 to 47 percent of students who did not use such media outside of school (tables 15 and 16). Twenty-three to 30 percent of AI/AN students at grades 4 and 8 reported using books and other materials about AI/AN people in school “three or more times” during the school year. Similarly, 23 to 26 percent of students reported using such media “three or more times” outside of school during the school year.

While the grade 4 results are similar across school types, the results for grade 8 vary by school density of AI/AN students. A larger percentage of BIE students at grade 8 reported using books and other materials about AI/AN people “three or more times” during the school year than students in low and high density public schools, including use in school (38 percent vs. 15 and 28 percent, respectively) and outside of school (31 percent vs. 21 and 25 percent, respectively). Given that these schools have a larger proportion of AI/AN students, it is unsurprising that BIE schools would feature more emphasis on AI/AN people and possibly more access to relevant books, videos, and other resources. These results also align with those of the *Interest in Reading About Cultures* composite variable.

**Table 15. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on whether they have used books, videos, or other materials about AI/AN people in school, by school type/density: 2019**

During the school year, have you used books, videos, or other materials (including Internet resources) about AI/AN people in school?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Yes, once or twice	35	35	33	33
Yes, three or more times	30	28	29	32
No	35	37	38	34
<b>Grade 8</b>				
Yes, once or twice	34	31	39 <sup>a</sup>	42 <sup>a</sup>
Yes, three or more times	23	15	28 <sup>a</sup>	38 <sup>a,b</sup>
No	43	54	33 <sup>a</sup>	20 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

**Table 16.** Percentage distribution of fourth- and eighth-grade AI/AN students who reported on whether they have used books, videos, or other materials about AI/AN people outside of school, by school type/density: 2019

During the school year, have you used books, videos, or other materials (including Internet resources) about AI/AN people outside of school?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Yes, once or twice	29	26	30	29
Yes, three or more times	26	25	25	25
No	46	48	45	46
<b>Grade 8</b>				
Yes, once or twice	30	26	33 <sup>a</sup>	36 <sup>a,b</sup>
Yes, three or more times	23	21	25 <sup>a</sup>	31 <sup>a,b</sup>
No	47	53	42 <sup>a</sup>	33 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## Do teachers engage in culturally specific professional development for their AI/AN students?

Another way that AI/AN students have their interest in reading about culture nurtured is through their teachers. One of the primary ways that teachers share information with their students is through reading, either in class or as part of homework. Teachers can be better equipped to inspire curiosity in the topic of AI/AN culture by participating in professional development on instructional practices specifically designed for AI/AN students. Culturally specific instructional practices include assignment of reading and other activities that are contextualized in AI/AN cultural information (Apthorp, D'Amato, & Richardson, 2002), and using such strategies can lead AI/AN students to develop interest in exploring the topic further. As a part of the 2019 NIES survey, teachers were asked about their participation in these types of professional development programs.



Overall, 60 percent of AI/AN students at grades 4 and 8 had teachers who reported “never” attending professional development programs aimed at developing AI/AN culturally specific instructional practices over the past two years (table 17). There was also a general pattern of higher percentages of students having teachers who reported occasional participation (e.g., 1 or 2 times) rather than more regular participation (e.g., 5 or more times). Teacher participation in this type of professional development varies by school type. In schools with greater proportions of AI/AN students, higher percentages of AI/AN students at grade 4 had teachers who reported participating “3 or 4 times” and “5 or more times.” For example, in the case of BIE schools, 19 percent of AI/AN students at grade 4 had teachers who reported attending professional development programs aimed at developing culturally specific instructional practices “3 or 4 times” in the last two years and 16 percent had teachers who did so “5 or more times.”

**Table 17. Percentage distribution of fourth- and eighth-grade AI/AN students, whose teachers reported how many times they have attended professional or community-based development programs aimed at developing culturally specific instructional practices for AI/AN students during the last two years, by school type/density: 2019**

During the last two years, how many times have you attended professional or community-based development programs (such as in-service classes and workshops, including online classes) aimed at developing culturally specific instructional practices for AI/AN students?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Never	60	79	42 <sup>a</sup>	30 <sup>a,b</sup>
1 or 2 times	22	17	38 <sup>a</sup>	36 <sup>a</sup>
3 or 4 times	13	3	11 <sup>a</sup>	19 <sup>a,b</sup>
5 or more times	4	1	9 <sup>a</sup>	16 <sup>a,b</sup>
<b>Grade 8</b>				
Never	60	73	47 <sup>a</sup>	24 <sup>a,b</sup>
1 or 2 times	22	16	33 <sup>a</sup>	43 <sup>a</sup>
3 or 4 times	14	10	13	20 <sup>b</sup>
5 or more times	4	1	7	13 <sup>a</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## Are AI/AN students exposed to their Heritage languages?

As part of the NIES student survey in 2019, AI/AN students were asked a series of questions about their exposure to their Heritage<sup>5</sup> languages. AI/AN fourth- and eighth-graders have various sources for potential interactions with their Heritage languages—and for getting support for learning them. Overall, 37 percent of AI/AN fourth-graders and 45 percent of AI/AN eighth-graders reported that their primary source for learning about their Heritage languages was their family (table 18). Readers should note that about one quarter of all AI/AN fourth- and eighth-graders reported that no one had taught them about their Heritage languages. Looking at results by school type, there were no measurable differences in the percentages of AI/AN fourth-graders across the school types reporting that their families taught them the most about their Heritage languages. At grade 8, higher percentages of AI/AN students in BIE and high density public schools (51 and 48 percent, respectively) than in low density public schools (42 percent) reported their families as their foremost source of Heritage language knowledge.

**Table 18. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on learning about AI/AN language, by school type/density: 2019**

Who taught you most of what you know about an AI/AN language?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
No one has taught me about an AI/AN language	25	31	23 <sup>a</sup>	19 <sup>a,b</sup>
Family members	37	38	39	37
Friends	4	4	5	5
Teachers	20	15	19	22 <sup>a,b</sup>
Tribal representatives or elders	8	7	8	10 <sup>a</sup>
Someone else	6	6	6	7
<b>Grade 8</b>				
No one has taught me about an AI/AN language	24	32	16 <sup>a</sup>	4 <sup>a,b</sup>
Family members	45	42	48 <sup>a</sup>	51 <sup>a</sup>
Friends	2	1	3 <sup>a</sup>	3 <sup>a</sup>
Teachers	17	14	19	27 <sup>a,b</sup>
Tribal representatives or elders	9	8	11	11 <sup>a</sup>
Someone else	3	2	3	4

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

<sup>5</sup> Heritage languages may also be referred to as Native, Indigenous, Treasure, Amerindian, North American Native, American Indian, Alaska Native, and/or traditional languages. Authors will use a subset of this terminology interchangeably, reflecting and acknowledging the fact that preferred terms may differ across communities.

Teachers were the next most commonly reported knowledge source, with 20 percent of AI/AN fourth-graders and 17 percent of AI/AN eighth-graders indicating that they learned the most about their Heritage languages from their teachers. AI/AN students at grades 4 and 8 attending BIE schools were more likely than their peers attending low and high density public schools to report that their teachers had taught them the most of what they knew about their Heritage languages.

While a plurality of AI/AN students indicated that their families taught them the most of what they know about their Heritage languages, 56 percent of AI/AN fourth-graders and 55 percent of AI/AN eighth-graders reported never or hardly ever hearing their family members talk in their American Indian or Alaska Native languages (table 19).

When considering school types, results at grades 4 and 8 show a stepwise decrease in the percentages of students reporting never or hardly ever hearing their families speak in their Heritage languages (i.e., the percentage of AI/AN students from low density public schools was higher than the percentage of students from high density public schools, which was in turn higher than that of BIE schools) and the opposite pattern reporting daily exposure to their Heritage languages at home—with students attending BIE schools more likely to hear their Native languages spoken at home daily or almost every day compared to their grade-level peers attending high density or low density public schools. For example, for AI/AN students attending BIE schools, the percentage of students who reported hearing their Native languages spoken at home daily or almost every day ranged from 30 percent at grade 4 to 51 percent at grade 8.

**Table 19. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on AI/AN language usage at home, by school type/density: 2019**

How often do members of your family talk to each other in your AI/AN language?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Never or hardly ever	56	61	52 <sup>a</sup>	37 <sup>a,b</sup>
Once or twice a month	16	15	15	18 <sup>a,b</sup>
Once or twice a week	11	10	13 <sup>a</sup>	15 <sup>a,b</sup>
Every day or almost every day	18	13	20 <sup>a</sup>	30 <sup>a,b</sup>
<b>Grade 8</b>				
Never or hardly ever	55	66	46 <sup>a</sup>	21 <sup>a,b</sup>
Once or twice a month	12	13	12	11
Once or twice a week	11	9	15 <sup>a</sup>	16 <sup>a</sup>
Every day or almost every day	22	12	27 <sup>a</sup>	51 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

Some AI/AN students also have the opportunity to hear their Heritage languages spoken in their schools and perhaps engage in exchanges with teachers, principals, visitors, parents, and other school staff. However, a majority of AI/AN students never hear their Heritage languages spoken at their schools, with 65 percent of fourth-graders and 73 percent of eighth-graders reporting that they never or hardly ever heard people in their schools talk to each other in their American Indian or Alaska Native languages (table 20).

AI/AN students attending BIE schools at grades 4 and 8 were more likely to hear their Heritage languages spoken at school daily or almost every day compared to their grade-level peers attending high or low density public schools.

**Table 20. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on AI/AN language usage in school, by school type/density: 2019**

How often do people in your school talk to each other in your AI/AN language?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Never or hardly ever	65	74	66 <sup>a</sup>	48 <sup>a,b</sup>
Once or twice a month	13	12	13	14
Once or twice a week	10	6	9 <sup>a</sup>	17 <sup>a,b</sup>
Every day or almost every day	12	8	12 <sup>a</sup>	20 <sup>a,b</sup>
<b>Grade 8</b>				
Never or hardly ever	73	86	64 <sup>a</sup>	35 <sup>a,b</sup>
Once or twice a month	9	7	13 <sup>a</sup>	15 <sup>a,b</sup>
Once or twice a week	9	4	13 <sup>a</sup>	23 <sup>a,b</sup>
Every day or almost every day	9	3	10 <sup>a</sup>	27 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

In addition to the less formal avenues for Heritage language exposure within their schools, AI/AN students were asked about attending classes in school that were taught in AI/AN languages.<sup>6</sup> Overall, approximately 35 percent of grade 4 AI/AN students and 25 percent of grade 8 AI/AN students attended schools where they attended classes with instruction in their own Native languages at least once a month (table 21).

On the other end of the access spectrum, the majority of AI/AN students at both grades reported that such classes were not offered at all or that they never attended them. For example, at grade 4, percentages of AI/AN students reporting that classes taught in Heritage languages were not offered at their schools at all or that they never attended such classes ranged from approximately 44 percent for students in BIE schools to 77 percent for those attending low density public schools.

<sup>6</sup> Readers should note that the later teacher survey question exploring whether teachers taught core subjects using Heritage languages is distinct from this student survey question. The classes that are asked about here could potentially be in subjects other than reading/language arts or mathematics, supplemental culture or language classes, and/or classes taught by tribal elders or other community visitors to the school in addition to the students' classroom teachers.

**Table 21. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on attending classes taught in an AI/AN language, by school type/density: 2019**

How often do you attend classes in school that are taught in an AI/AN language?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
My school does not offer classes that are taught in an AI/AN language	43	53	40 <sup>a</sup>	26 <sup>a,b</sup>
Never or hardly ever	23	24	24	18 <sup>a,b</sup>
Once or twice a month	10	10	11	13 <sup>a,b</sup>
Once or twice a week	11	8	13 <sup>a</sup>	16 <sup>a,b</sup>
Every day or almost every day	14	6	13 <sup>a</sup>	26 <sup>a,b</sup>
<b>Grade 8</b>				
My school does not offer classes that are taught in an AI/AN language	50	66	34 <sup>a</sup>	12 <sup>a,b</sup>
Never or hardly ever	24	23	31 <sup>a</sup>	16 <sup>a,b</sup>
Once or twice a month	6	4	9 <sup>a</sup>	9 <sup>a</sup>
Once or twice a week	8	3	8 <sup>a</sup>	24 <sup>a,b</sup>
Every day or almost every day	11	3	17 <sup>a</sup>	40 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## How do AI/AN students view their Heritage language abilities?

As part of the NIES student surveys in 2019, students were also asked to evaluate how well they could speak and read their Heritage languages. Overall, 40 and 42 percent of AI/AN students at grades 4 and 8, respectively, reported that they could not speak their Heritage language (table 22) with 49 percent of AI/AN fourth-graders and 56 percent of AI/AN eighth-graders reporting that they could not read in their Heritage languages (table 23).<sup>7</sup>

Among the remainder of AI/AN students—those who had at least some Heritage language abilities—the plurality, across both grades, reported that they could speak or read a few words or phrases. Looking at this group in the context of school types, the percentages of AI/AN students attending BIE schools at both grades with this level of language ability were higher than the percentages of their grade-level peers attending high density public schools, which were in turn higher than the percentages for students attending low density public schools.

<sup>7</sup> Readers should note that the availability of materials in written text varies across Heritage languages.

**Table 22. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on how they rate themselves in speaking an AI/AN language, by school type/density: 2019**

How do you rate yourself in speaking an AI/AN language?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
I cannot speak an AI/AN language	40	48	39 <sup>a</sup>	29 <sup>a,b</sup>
I can speak a few words or phrases	43	36	44 <sup>a</sup>	52 <sup>a,b</sup>
I can speak well	17	16	17	19 <sup>a,b</sup>
<b>Grade 8</b>				
I cannot speak an AI/AN language	42	54	31 <sup>a</sup>	9 <sup>a,b</sup>
I can speak a few words or phrases	49	39	58 <sup>a</sup>	78 <sup>a,b</sup>
I can speak well	9	7	10 <sup>a</sup>	12 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

**Table 23. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on how they rate themselves in reading an AI/AN language, by school type/density: 2019**

How do you rate yourself in reading an AI/AN language?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
I cannot read an AI/AN language	49	55	45 <sup>a</sup>	38 <sup>a,b</sup>
I can read a few words or phrases	36	31	38 <sup>a</sup>	44 <sup>a,b</sup>
I can read well	15	14	17	19 <sup>a</sup>
<b>Grade 8</b>				
I cannot read an AI/AN language	56	68	45 <sup>a</sup>	22 <sup>a,b</sup>
I can read a few words or phrases	36	26	45 <sup>a</sup>	65 <sup>a,b</sup>
I can read well	8	6	10 <sup>a</sup>	13 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## Do AI/AN students have teachers who speak their Heritage languages?

While AI/AN students report that their teachers are their second-most likely source for learning about their Heritage languages (with their families being their primary source), small proportions of AI/AN students in 2019 had teachers who reported having even moderate levels of fluency.

Overall, approximately 9 percent of AI/AN fourth-graders and 7 percent of AI/AN eighth-graders had teachers who spoke (to at least a moderate level) Heritage languages spoken by their AI/AN students (table 24). For both grades in general, percentages of AI/AN students attending BIE schools who had teachers who were fluent native speakers were higher than for students attending high density or low density public schools; however, these percentages for BIE students were still relatively low: 24 percent at grade 4 and 18 percent at grade 8.

At both grades, the overall picture shows that approximately 90 percent of AI/AN students have teachers with little or no Heritage language speaking capability (combining “nonspeaker” and “minimal ability” categories). These NIES results speak to the enormous challenges faced by schools in assisting with Native language preservation as they operate within the larger context where “three quarters of [Native languages] are endangered” (U.S. Departments of Education, Health and Human Services, and Interior, 2016, page 13).

**Table 24. Percentage distribution of fourth- and eighth-grade AI/AN students, whose teachers reported the extent to which they speak any AI/AN languages, by school type/density: 2019**

To what extent do you speak any of the native languages spoken by AI/AN students who attend this school? If you know more than one of these languages, answer for the one you know best.	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
No knowledge or skill; nonspeaker	73	95	66 <sup>a</sup>	24 <sup>a,b</sup>
Minimal functional or communicative ability; ability to use some words or phrases	18	4	23 <sup>a</sup>	43 <sup>a,b</sup>
Moderate communicative ability; can express some ideas and communicate in some situations, but limited and cannot always express ideas	5	#	4 <sup>a</sup>	9 <sup>a,b</sup>
Fluent nonnative speaker	#	1	#	1
Fluent native speaker	4	#	7 <sup>a</sup>	24 <sup>a,b</sup>
<b>Grade 8</b>				
No knowledge or skill; nonspeaker	77	96	60 <sup>a</sup>	13 <sup>a,b</sup>
Minimal functional or communicative ability; ability to use some words or phrases	16	4	33 <sup>a</sup>	54 <sup>a,b</sup>
Moderate communicative ability; can express some ideas and communicate in some situations, but limited and cannot always express ideas	2	#	4 <sup>a</sup>	15 <sup>a,b</sup>
Fluent nonnative speaker	#	#	1	#
Fluent native speaker	5	#	2	18 <sup>b</sup>

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## Do AI/AN students receive instruction in core subjects in their Heritage languages?

As part of the NIES teacher surveys in 2019, teachers were asked whether they used their students' AI/AN languages to teach any of the core subjects. Response options ranged from "Instruction is entirely in English" to "Instruction is primarily in the students' American Indian or Alaska Native language(s)." Given the results from the previous survey question about language capabilities, it is not surprising that approximately 95 percent of AI/AN students had classroom instruction in core subjects entirely in English or with only the occasional use of a word or a phrase from their Heritage languages (table 25). Even in BIE schools, 83 percent of AI/AN fourth-graders and 87 percent of AI/AN eighth-graders received instruction in core subjects with only the occasional or no use of their Heritage languages. It should also be noted that regardless of school type, the likelihood of AI/AN students receiving instruction primarily in their Heritage languages is generally almost zero.

**Table 25. Percentage distribution of fourth- and eighth-grade AI/AN students, whose teachers reported the extent to which they use AI/AN languages when teaching core subjects, by school type/density: 2019**

Grade and teacher survey question	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: To what extent do you use your students' AI/AN language(s) when you teach any core subject (reading, mathematics, science, and social studies)?</b>				
Instruction is entirely in English	78	95	83 <sup>a</sup>	48 <sup>a,b</sup>
Instruction is primarily in English, but words or phrases from the students' AI/AN language(s) are included occasionally	16	4	13 <sup>a</sup>	34 <sup>a,b</sup>
Instruction is primarily in English, but words or phrases from the students' AI/AN language(s) are included frequently	6	1	4 <sup>a</sup>	17 <sup>a,b</sup>
Instruction is primarily in the students' AI/AN language(s)	#	#	#	1
<b>Grade 8: To what extent do you use your students' AI/AN language(s) when you teach reading/language arts?</b>				
Instruction is entirely in English	87	98	81 <sup>a</sup>	46 <sup>a,b</sup>
Instruction is primarily in English, but words or phrases from the students' AI/AN language(s) are included occasionally	9	2	18 <sup>a</sup>	41 <sup>a,b</sup>
Instruction is primarily in English, but words or phrases from the students' AI/AN language(s) are included frequently	4	#	1 <sup>a</sup>	13 <sup>a,b</sup>
Instruction is primarily in the students' AI/AN language(s)	#	#	#	#
<b>Grade 8: To what extent do you use your students' AI/AN language(s) when you teach mathematics?</b>				
Instruction is entirely in English	89	99	85 <sup>a</sup>	59 <sup>a,b</sup>
Instruction is primarily in English, but words or phrases from the students' AI/AN language(s) are included occasionally	6	1	11 <sup>a</sup>	29 <sup>a,b</sup>
Instruction is primarily in English, but words or phrases from the students' AI/AN language(s) are included frequently	5	#	4	13 <sup>b</sup>
Instruction is primarily in the students' AI/AN language(s)	#	#	#	#

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## How are teachers of AI/AN students prepared to support language learning?

In 2019, teachers also answered a multipart question about the types of training that they had received to support language learning for students whose first language is not English. Overall, 56 percent of AI/AN fourth-graders and 50 percent of AI/AN eighth-graders had teachers who had taken at least one college-level course focused on supporting English language learners (table 26).<sup>8</sup> At grade 4, higher percentages of AI/AN students in BIE schools than in high density public schools had teachers with this level of training to support language learning (64 vs. 52 percent).

Overall, 22 and 23 percent of AI/AN students at grades 4 and 8, respectively, had teachers with some type of advanced training in this area, such as an undergraduate or graduate major, minor, or special emphasis. But looking at results by school type, higher percentages of AI/AN students attending BIE schools than attending low and high density public schools had teachers with such advanced training, with almost half (49 percent) of BIE students having teachers with this level of preparation.

To complete this sequence of questions, the teachers were asked whether they had received any other training or professional development to support English language learners. Overall, 50 and 54 percent of fourth- and eighth-grade AI/AN students' teachers, respectively, reported that they had received some type of supplemental training. When looking at the results by school type, higher percentages of AI/AN students at both grades in low density public schools than in BIE schools had teachers who had some type of training or professional development for supporting students whose first language is not English.

These results suggest potential areas of research beyond NIES, such as questions about the availability of professional development and how it may be impacted by geography (e.g., relatively remote settings) and/or the availability of online training.

<sup>8</sup>Note that the new designation by the U.S. Department of Education is "English learners." The table reflects the exact wording used in the survey questionnaire at the time of the administration of the NIES survey.

**Table 26. Percentage distribution of fourth- and eighth-grade AI/AN students, whose teachers reported whether they have received training on teaching students whose first language is not English, by school type/density: 2019**

Have you received any of the following forms of preparation for teaching students whose first language is not English (sometimes called Limited English Proficiency [LEP] students or English Language Learners [ELL])?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: At least one college-level course on how to teach students whose first language is not English (but not a major, minor, or special emphasis)</b>				
Yes	56	63	52 <sup>a</sup>	64 <sup>b</sup>
No	44	37	48 <sup>a</sup>	36 <sup>b</sup>
<b>Grade 8: At least one college-level course on how to teach students whose first language is not English (but not a major, minor, or special emphasis)</b>				
Yes	50	55	44	48
No	50	45	56	52
<b>Grade 4: An undergraduate or graduate major, minor, or special emphasis in teaching English as a Second Language (ESL), English Language Development (ELD), or Bilingual Education</b>				
Yes	22	27	19 <sup>a</sup>	49 <sup>a,b</sup>
No	78	73	81 <sup>a</sup>	51 <sup>a,b</sup>
<b>Grade 8: An undergraduate or graduate major, minor, or special emphasis in teaching English as a Second Language (ESL), English Language Development (ELD), or Bilingual Education</b>				
Yes	23	20	27	49 <sup>a,b</sup>
No	77	80	73	51 <sup>a,b</sup>
<b>Grade 4: Any other training or professional development on how to teach students whose first language is not English</b>				
Yes	50	62	41 <sup>a</sup>	55 <sup>a,b</sup>
No	50	38	59 <sup>a</sup>	45 <sup>a,b</sup>
<b>Grade 8: Any other training or professional development on how to teach students whose first language is not English</b>				
Yes	54	60	50	43 <sup>a</sup>
No	46	40	50	57 <sup>a</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense schools. Detail may not sum to totals because of rounding.

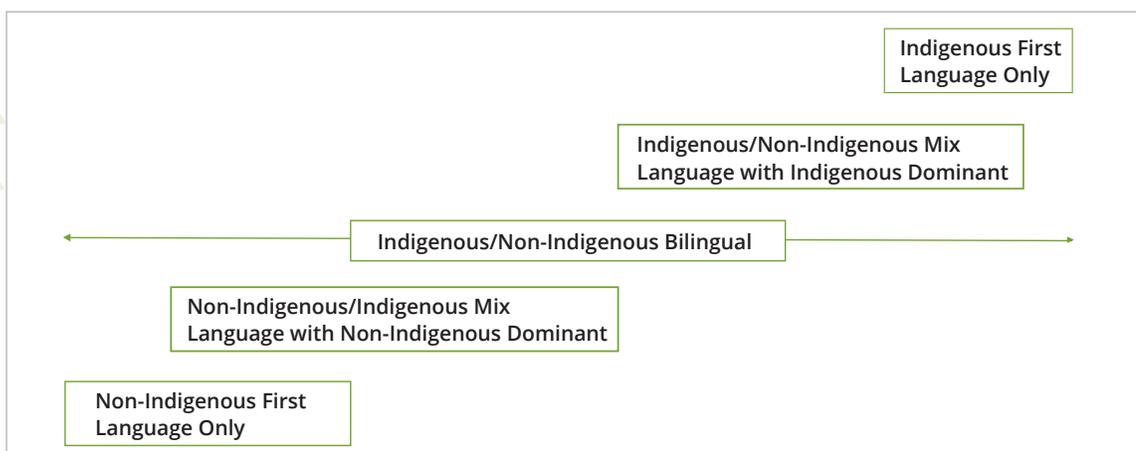
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

## What are some of the overarching language learning contexts for AI/AN students?

To conclude this exploration of access to and support for language learning, we will examine results from school data and responses from school administrators in 2019 that provide additional information about the overall school population and school programming that potentially impacts educational outcomes for AI/AN students. The schools that serve AI/AN students are, of course, embedded in larger legal and historical contexts that influence local decisions. Regardless, researchers have long noted that a key component of success—for all students—is an environment that promotes the recognition and nurturing of the *funds of knowledge* that students bring to their school, over and against approaches that view students from a *deficit perspective*. (Carjuzaa & Ruff, 2016; Moll, Amanti, Neff, & Gonzalez, 1992; WIDA, 2014).

Along this same line of thought—how students are “seen” holistically and, more specifically, how students are formally identified impacts the types of services that they will receive within their schools. The long-standing challenges around accurately identifying AI/AN students for special services is widely discussed (Faircloth & Tippeconnic, 2000; Kim & Helphenstine, 2017; Thomas & Collier, 1997). In the United States, Heritage language learning is inextricably intertwined with varying local and state policies and practices around English language learning. Readers should note that while NIES does not directly gather data about local and state initiatives around Heritage language preservation and instruction on the one hand, or English-only approaches on the other, the NIES data can play a role in the larger research conversation about this complex and challenging educational space. Reinhardt (2017) provides some needed context for considering these complexities, with a core evaluation being *where* students currently are on the language-learning continuum—and where on that continuum that they, their families, and their communities are motivated to see them arrive in the future (exhibit 2).

**Exhibit 2. Indigenous language-learner continuum**



SOURCE: Reinhardt, M. (2017). Curriculum development, lesson planning, and delivery: A guide to Native language immersion. *Cogent Education*, 4(1), 1340861. <https://www.cogentoa.com/article/10.1080/2331186X.2017.1340861>

## What proportion of AI/AN students are identified as English learners?

With this context in mind, NIES results show that, overall, 12 percent of AI/AN fourth-graders and 9 percent of AI/AN eighth-graders were identified as English learners<sup>9</sup> in 2019 (table 27). Results by school type showed that larger percentages of AI/AN students attending BIE schools were identified as English learners compared to their grade-level peers in low density and high density public schools, with 30 percent of fourth-graders and 26 percent of eighth-graders in BIE schools identified as English learners. Again, readers are encouraged to keep in mind the earlier comments that introduced this subsection about the complex and varying local and state programming in this space, the ultimate goals of those programs, and the challenges around making accurate identifications of AI/AN students for special services.

**Table 27. Percentage distribution of fourth- and eighth-grade AI/AN students, by school type/density and status as English learners: 2019**

Status as English learners	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Identified as English learners	12	9	9	30 <sup>a,b</sup>
Not identified as English learners	88	91	91	70 <sup>a,b</sup>
<b>Grade 8</b>				
Identified as English learners	9	3	9 <sup>a</sup>	26 <sup>a,b</sup>
Not identified as English learners	91	97	91 <sup>a</sup>	74 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

As part of NAEP data collection in 2019, school administrators were asked to indicate the percentage of students enrolled in their schools who were identified as English learners.<sup>10</sup> This type of information about school enrollment potentially impacts local decisions about programming, teacher deployment, and even the day-to-day scheduling and coordination of classes.

Overall, the majority of AI/AN students (approximately 72 percent at grade 4 and 75 percent at grade 8) attended schools where English learners represented 10 percent or less of the total student enrollment at their schools (table 28). Looking at these results by school type, the percentages of AI/AN fourth-graders attending schools with the same proportions (i.e., 10 percent or less) of English learner enrollment were approximately 67, 69, and 59 percent for students attending low density public schools, high density public schools, and BIE schools, respectively. The parallel percentages at grade 8 were 77, 71, and 58 percent.

<sup>9</sup> Note that the new designation by the U.S. Department of Education is “English learners,” not “English language learners.” This does not necessarily mean that a student is learning English *in addition* to a Native language (or any other language). It could simply mean that, within their school setting (and local/state definitions), a student may be struggling with English.

<sup>10</sup> Readers should note that at the time of the NAEP assessments and the NIES survey, the terminology used was “limited-English proficient,” which is the label used in the accompanying table 28.

At the other end of the spectrum regarding the relative proportions of English learner enrollments in schools serving AI/AN students, results for BIE schools showed that approximately 27 percent of their AI/AN fourth-graders and 17 percent of their AI/AN eighth-graders attended schools where over half of the students enrolled were identified as English learners.

**Table 28. Percentage distribution of fourth- and eighth-grade AI/AN students, by school type/density and school-identified percentage of limited-English proficient students in their schools: 2019**

Of the students currently enrolled in your school, what percentage has been identified as limited English proficient?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
0%	28	9	31 <sup>a</sup>	31 <sup>a</sup>
1–5%	31	39	31	21 <sup>a</sup>
6–10%	12	19	7 <sup>a</sup>	7 <sup>a</sup>
11–25%	14	19	12	7 <sup>a</sup>
26–50%	10	10	15	7
51–75%	3	3	2	8 <sup>a</sup>
76–90%	1	1	1	6 <sup>a,b</sup>
Over 90%	1	#	#	12
<b>Grade 8</b>				
0%	22	15	33 <sup>a</sup>	32 <sup>a</sup>
1–5%	40	46	28 <sup>a</sup>	17 <sup>a,b</sup>
6–10%	13	16	11	9 <sup>a</sup>
11–25%	16	17	14	17
26–50%	6	4	11	8 <sup>a</sup>
51–75%	2	1	1	9 <sup>a,b</sup>
76–90%	1	#	2	#
Over 90%	1	#	1	7 <sup>a,b</sup>

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## What do school administrators report about Heritage language programming at their schools?

Native language immersion programs are a fairly recent development in the education of AI/AN students. The reasons that tribal communities have initiated immersion programs are multifold and bring us back full circle to our introductory comments: to directly address language extinction by bolstering Native language revitalization through focused and supportive immersive Indigenous language learning environments for young AI/AN students; to enhance AI/AN student academic achievement and self-worth; to address AI/AN student retention rates; to maintain irreplaceable worldviews that are inextricably tied to individual Indigenous languages; and to strengthen Native communities through educational sovereignty (McCarty & Lee, 2014; Pease-Pretty on Top, 2003).

In many ways, these goals, as articulated by researchers and carried forward by programs around the country, are manifestations of the aspirational language of the Native American Languages Act of 1990, which made it a federal policy “to encourage and support the use of Native American languages as a medium of instruction in order to encourage and support (A) Native American language survival; (B) educational opportunity; (C) increased student success and performance; (D) increased student awareness and knowledge of their culture and history; and (E) increased student and community pride” (NALA, 1990).

With this important backdrop, and current context in mind, we will examine the last two school survey questions in this section regarding immersion schools and the availability of instruction in American Indian or Alaska Native oral and written languages in 2019.

Overall, 2 percent of AI/AN fourth-graders and 6 percent of AI/AN eighth-graders attended American Indian or Alaska Native language immersion schools in 2019 (table 29). Approximately one-quarter of AI/AN students attended BIE schools that their administrators reported as being language immersion schools (23 percent at grade 4 and 25 percent at grade 8).

**Table 29. Percentage distribution of fourth- and eighth-grade AI/AN students, whose school administrators reported whether their school is an AI/AN language immersion school, by school type/density: 2019**

Is your school an AI/AN language immersion school?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Yes	2	#	3	23 <sup>a,b</sup>
No	98	100	97	77 <sup>a,b</sup>
<b>Grade 8</b>				
Yes	6	4	7	25 <sup>b</sup>
No	94	96	93	75 <sup>b</sup>

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

School administrators were asked whether their students received instruction about Indigenous cultures, and specifically in terms of instruction about their oral or written languages. Please note that this survey question was for all administrators, whether they worked in immersion schools or not. Overall, 49 percent of AI/AN fourth-graders and 45 percent of AI/AN eighth-graders had school administrators who reported that their students received instruction about Native oral languages (table 30). Percentages for instruction about Native written languages for AI/AN fourth- and eighth-graders were 43 and 42 percent, respectively.

At both grades, AI/AN students attending BIE schools were more likely to receive instruction about both Native oral and Native written languages compared to their grade-level peers attending high or low density public schools, and in turn, AI/AN students attending high density public school were more likely than their low density public school peers to receive instruction about Native oral and written languages.

**Table 30. Percentage distribution of fourth- and eighth-grade AI/AN students, whose school administrators reported whether students in school receive instruction about AI/AN cultures in oral language or written language, by school type/density: 2019**

Do students in your school receive instruction about AI/AN cultures in any of the following areas?	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4: Oral language</b>				
Yes	49	27	61 <sup>a</sup>	98 <sup>a,b</sup>
No	51	73	39 <sup>a</sup>	2 <sup>a,b</sup>
<b>Grade 8: Oral language</b>				
Yes	45	24	72 <sup>a</sup>	96 <sup>a,b</sup>
No	55	76	28 <sup>a</sup>	4 <sup>a,b</sup>
<b>Grade 4: Written language</b>				
Yes	43	26	48 <sup>a</sup>	77 <sup>a,b</sup>
No	57	74	52 <sup>a</sup>	23 <sup>a,b</sup>
<b>Grade 8: Written language</b>				
Yes	42	24	65 <sup>a</sup>	87 <sup>a,b</sup>
No	58	76	35 <sup>a</sup>	13 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

# Performance Results for the Nation

AI/AN students in the United States represent a diverse spectrum of educational experiences and settings: broadly speaking, they not only attend different types of schools, but the specific types of schools that they attend also vary across multiple student factors. The following table provides information about some of these differing characteristics to provide context for the national performance results that follow later in this section.

For example, in 2019, the percentages of AI/AN fourth- and eighth-graders attending BIE schools who reported having a computer in their home were lower than the parallel percentages for their same-grade peers attending high density public schools, which were likewise lower than the percentages for AI/AN students attending low density public schools (table 31). A similar pattern in percentages (i.e., the percentage of BIE schools is lower than the percentage of high density public schools, which is in turn lower than that of low density public schools) is evident for eighth-grade students reporting more than 100 books in their homes and who have at least one parent with a college education. This stepwise pattern is reversed for both grades for students who attended rural schools and who were eligible for the National School Lunch Program: for these factors the percentages of BIE students were higher than for AI/AN students attending high density public schools, which were in turn higher than the percentages for AI/AN students attending low density public schools.

**Table 31. Percentage of fourth- and eighth-grade AI/AN students, by school type/density and student characteristic: 2019**

Grade and student characteristic	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Attend city schools	16	29	2 <sup>a</sup>	#
Attend suburban schools	16	28	#	3 <sup>a</sup>
Attend town schools	21	19	32 <sup>a</sup>	7 <sup>a,b</sup>
Attend rural schools	46	24	66 <sup>a</sup>	90 <sup>a,b</sup>
Identified as English learners	12	9	9	30 <sup>a,b</sup>
Identified as students with disabilities	17	18	17	14 <sup>a,b</sup>
Eligible for National School Lunch Program	74	67	88 <sup>a</sup>	96 <sup>a,b</sup>
More than 100 books in home	22	23	17 <sup>a</sup>	16 <sup>a</sup>
Computer in home	52	54	47 <sup>a</sup>	44 <sup>a,b</sup>
No days absent from school	34	36	31	33
<b>Grade 8</b>				
Attend city schools	17	26	3 <sup>a</sup>	6 <sup>a</sup>
Attend suburban schools	15	26	#	#
Attend town schools	26	23	33	12 <sup>a, b</sup>
Attend rural schools	43	25	64 <sup>a</sup>	82 <sup>a, b</sup>
Identified as English learners	10	3	9 <sup>a</sup>	26 <sup>a, b</sup>
Identified as students with disabilities	17	17	16	16
Eligible for National School Lunch Program	72	61	84 <sup>a</sup>	96 <sup>a,b</sup>
Parent(s) graduated from college	42	44	37 <sup>a</sup>	29 <sup>a,b</sup>
More than 100 books in home	14	19	11 <sup>a</sup>	7 <sup>a,b</sup>
Computer in home	68	76	60 <sup>a</sup>	45 <sup>a,b</sup>
No days absent from school	30	33	30	29

# Rounds to zero.

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

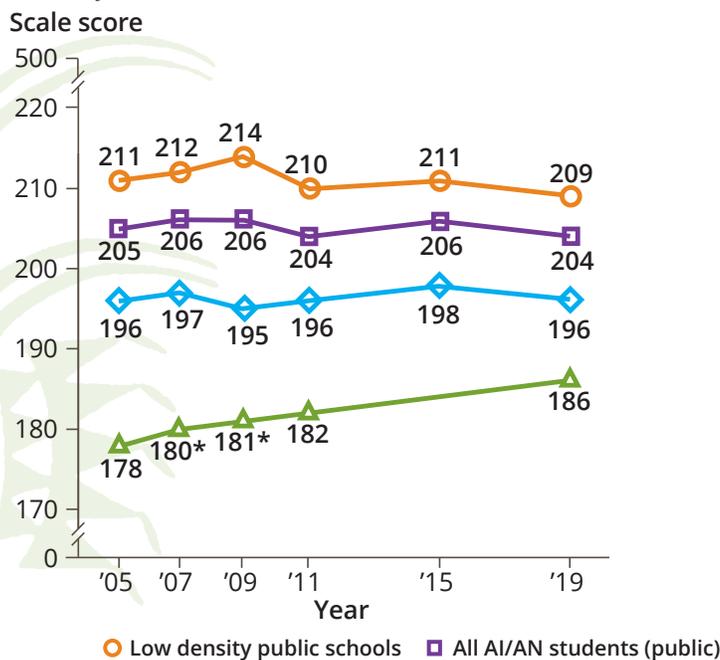
NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density schools have less than 25 percent AI/AN students. High density schools have 25 percent or more. Information on parental education was not collected at grade 4. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

The following figures show whether NAEP reading and mathematics scores have changed over time for AI/AN students in the three school types and for all AI/AN students in public schools in the nation. These figures use asterisks to identify prior assessment years for which average scores are statistically different from average scores in 2019. While not noted in these figures, at both grades and for both subjects, scores for students in low density public schools in 2019 were higher than those for students in high density public or BIE schools, and scores for students in high density public schools were higher than those for students in BIE schools.

## Reading

- At grade 4, average reading scores in 2019 for AI/AN students in low density and high density public schools and for all AI/AN students (public) were not significantly different from the scores in all previous assessment years (figure 1). For fourth-graders attending BIE schools, the average reading score in 2019 was higher than in 2007 and 2009.
- At grade 8, the average reading scores in 2019 for AI/AN students in low density public schools and for all AI/AN students (public) were not significantly different from the scores in previous assessment years (figure 2). For AI/AN eighth-graders in high density public schools, the average reading score in 2019 was lower than scores in 2009 or 2015. For eighth-graders attending BIE schools, the average reading score in 2019 was higher than in 2007 and 2009.

**Figure 1. Trend in fourth-grade NAEP reading average scores for AI/AN students, by school type/density: Various years, 2005–19**

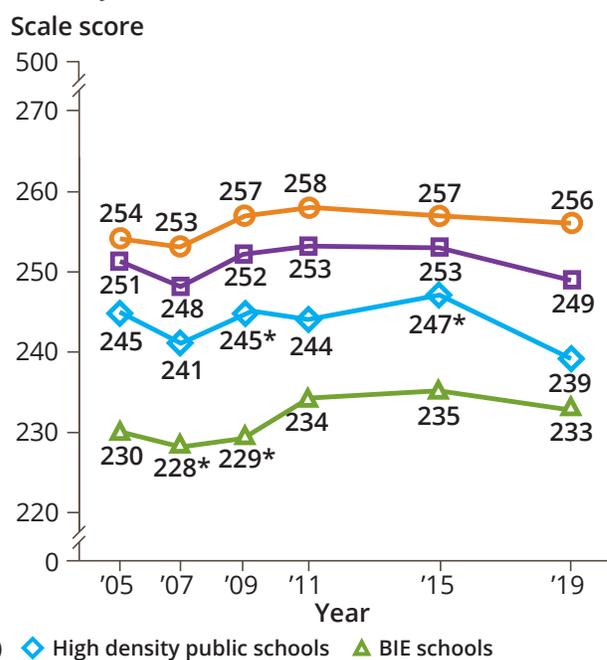


\* Significantly different ( $p < .05$ ) from 2019.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. In 2019, NAEP reading results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP reading scale ranges from 0 to 500. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students. High density public schools have 25 percent or more. All AI/AN students (public) includes only students in public schools. Performance results are not available for BIE schools at fourth grade in 2015 because school participation rates did not meet the 70 percent criteria.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

**Figure 2. Trend in eighth-grade NAEP reading average scores for AI/AN students, by school type/density: Various years, 2005–19**



\* Significantly different ( $p < .05$ ) from 2019.

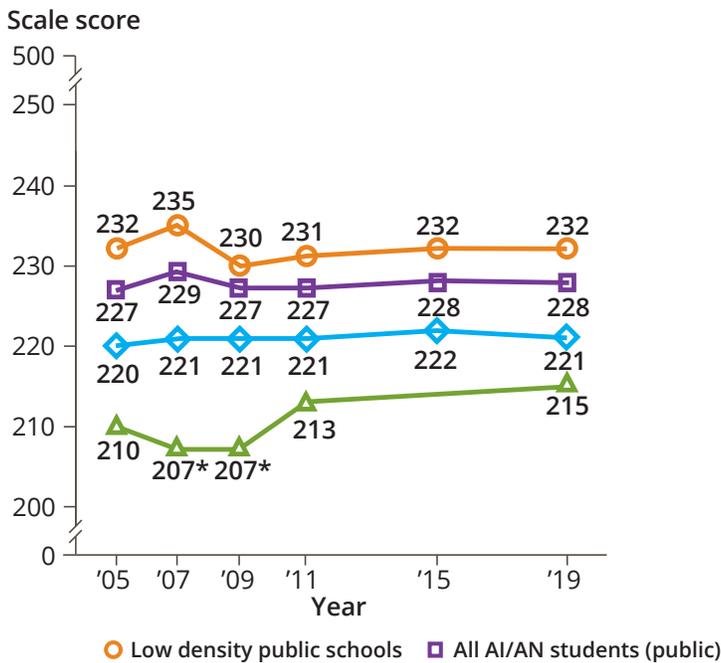
NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. In 2019, NAEP reading results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP reading scale ranges from 0 to 500. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students. High density public schools have 25 percent or more. All AI/AN students (public) includes only students in public schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

# Mathematics

- At grade 4, the average mathematics score in 2019 for students in BIE schools was higher than the scores in 2007 and 2009 (figure 3). Across all other school types presented here, average mathematics scores in 2019 for AI/AN fourth-graders were not significantly different from the scores in all previous assessment years.
- At grade 8, for students attending BIE schools, the average mathematics score in 2019 was higher than the score in 2007 (figure 4). For AI/AN eighth-graders attending all other school types presented here, average mathematics scores in 2019 were not significantly different from their scores in previous assessment years.

**Figure 3. Trend in fourth-grade NAEP mathematics average scores for AI/AN students, by school type/density: Various years, 2005–19**

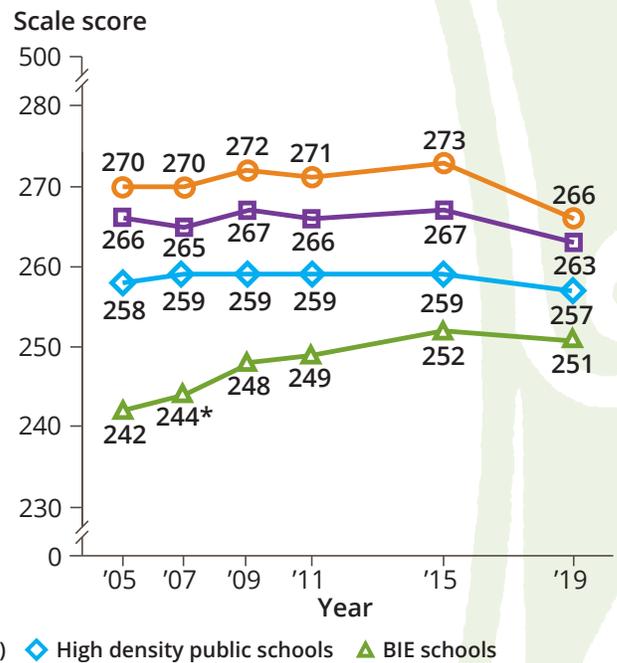


\* Significantly different ( $p < .05$ ) from 2019.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. In 2019, NAEP mathematics results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP mathematics scale ranges from 0 to 500 at grades 4 and 8. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students. High density public schools have 25 percent or more. All AI/AN students (public) includes only students in public schools. Performance results are not available for BIE schools at fourth grade in 2015 because school participation rates did not meet the 70 percent criteria.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

**Figure 4. Trend in eighth-grade NAEP mathematics average scores for AI/AN students, by school type/density: Various years, 2005–19**



\* Significantly different ( $p < .05$ ) from 2019.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. In 2019, NAEP mathematics results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP mathematics scale ranges from 0 to 500 at grades 4 and 8. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students. High density public schools have 25 percent or more. All AI/AN students (public) includes only students in public schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

# Perspectives Beyond the Average Score

AI/AN students represent multiple tribal affiliations and a variety of Native languages. They come from homes with different levels of support and resources, and they attend schools with various percentages of AI/AN students and levels of available resources. The following subsections of this report will go beyond the average score via

- descriptions of AI/AN students based on analyses of Native students performing at or above the 75th percentile and below the 25th percentile (referred to subsequently as “higher-performing” and “lower-performing” AI/AN students, respectively), relative to other AI/AN students in either mathematics or reading;<sup>11</sup> and
- a closer examination of results derived from the combination of multiple related survey questions (i.e., composite variables) centered around academic engagement and expectations.<sup>12</sup>

Just as in the *AI/AN Culture and Language* section, readers should note that the selection of the factors for this section and the construction of the composite variables presented here were based on guidance from a panel of experts in AI/AN education (for more information see the *Technical Notes* and the list of NIES Technical Review Panel members on the *Acknowledgments* page). Readers should also note that the results presented in this section are not to be interpreted as drawing causal links between factors and performance. There are many reasons why the performance of one group of students differs from another, including ones that are not asked about (and therefore, not measured) in NIES, such as opportunity, socioeconomic status, quality of teaching, or biases in curriculum.

## Factors Associated with Higher- and Lower-Performing AI/AN Students

The results presented in this section provide some selected factors that are associated with higher performance by AI/AN fourth- and eighth-graders and that may point the way for additional research. The questions about access were drawn from student self-reports: the first two from the NAEP questionnaires, and the last one from the NIES questionnaires (table 32). The questions about family involvement were drawn from the NIES school administrator questionnaires (table 33). The questions about motivation were drawn from the NAEP student questionnaires (table 34). Percentages that are statistically different from one another are indicated by an asterisk (\*). Other pairs may be numerically different from one another, however those differences are not statistically significant.

<sup>11</sup> Please note that “higher-performing” and “lower-performing” refer to performance in specified subject areas (i.e., mathematics or reading) and do not reflect general academic performance.

<sup>12</sup> The composite variables *Cultural Knowledge* and *Interest in Reading About Cultures* were explored in the prior section of the report.

## Is the availability of media and resources at home and school related to higher vs. lower performance by AI/AN students?

Variables related to the availability of resources at home and at school showed fairly consistent patterns across both grades and subjects (table 32). Compared to their lower-performing peers, higher-performing AI/AN students were more likely to report that they had

- Internet access at home (at both grades 4 and 8 in reading and mathematics);
- more than 100 books in their homes (at grade 8 in reading and at grades 4 and 8 in mathematics); and
- a school library, media center, or resource center that contained materials about AI/AN people (at grades 4 and 8 in reading).

**Table 32. Percentage of fourth- and eighth-grade AI/AN students in NAEP reading and mathematics, by performance level and selected factors: 2019**

Factor	Reading		Mathematics	
	Higher-performing AI/AN students	Lower-performing AI/AN students	Higher-performing AI/AN students	Lower-performing AI/AN students
<b>Grade 4</b>				
Home has Internet access	93*	62	93*	70
Home has more than 100 books	29	18	29*	18
School has materials about AI/AN people	70*	56	65	63
<b>Grade 8</b>				
Home has Internet access	95*	85	95*	84
Home has more than 100 books	30*	5	28*	7
School has materials about AI/AN people	80*	68	80	71

\* Significantly different ( $p < .05$ ) from corresponding result for lower-performing AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Only selected response options are shown for each factor; not all response options are shown.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study and 2019 Reading and Mathematics Assessments.



## Is family involvement in school organizations related to higher vs. lower performance by AI/AN students?

School administrators who completed the 2019 NIES questionnaire answered a series of questions about whether the families of their students were involved in different types of school programs. The relationship of these school-level variables with student achievement showed varying patterns across grades and subjects, but a general pattern of differences can be observed when comparing student performance levels (table 33). In 2019, compared to their lower-performing peers, higher-performing AI/AN students were more likely to attend schools where their families were involved in

- volunteer programs (at grade 4 in reading and at grade 8 in mathematics); and
- parent-teacher organizations (at grades 4 and 8 in reading and at grade 4 in mathematics).

In the case of student academic clubs, a difference between lower- and higher-performing AI/AN students was observed in the grade 8 mathematics sample. In 2019, higher-performing AI/AN eighth-graders were more likely than their lower-performing peers to attend a school where their families were involved in academic clubs.

**Table 33. Percentage of fourth- and eighth-grade AI/AN students in NAEP reading and mathematics, by performance level and selected factors: 2019**

Factor	Reading		Mathematics	
	Higher-performing AI/AN students	Lower-performing AI/AN students	Higher-performing AI/AN students	Lower-performing AI/AN students
<b>Grade 4</b>				
Families involved in volunteer programs	76*	53	73	62
Families involved in parent-teacher organizations	81*	68	83*	73
Families involved in academic club	31	21	26	19
<b>Grade 8</b>				
Families involved in volunteer programs	61	49	66*	51
Families involved in parent-teacher organizations	71*	56	67	61
Families involved in academic club	29	23	39*	23

\* Significantly different ( $p < .05$ ) from corresponding result for lower-performing AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Only selected response options are shown for each factor; not all response options are shown.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study and 2019 Reading and Mathematics Assessments.

## Are motivational factors related to higher vs. lower performance by AI/AN students?

While almost all of the student-reported motivational factors presented here showed numeric differences between the percentages for higher- and lower-performing AI/AN students, measurable differences were consistently evident for fourth-graders in reading and mathematics. For example, compared to their lower-performing counterparts, higher-performing AI/AN fourth-grade students were more likely to report that the statement “I try very hard even after making mistakes” described them “very much” (table 34).

Compared to their lower-performing peers, higher-performing AI/AN fourth-graders were more likely to report that

- they “all or almost all of the time” started working on assignments right away rather than waiting until the last minute; and
- the statements “I want to become better in math this year” or “I want to become a better reader this year” described them “exactly.”

**Table 34. Percentage of fourth- and eighth-grade AI/AN students in NAEP reading and mathematics, by performance level and selected factors: 2019**

Factor	Reading		Mathematics	
	Higher-performing AI/AN students	Lower-performing AI/AN students	Higher-performing AI/AN students	Lower-performing AI/AN students
<b>Grade 4</b>				
Students reported that trying very hard even after making mistakes described them “very much”	59*	44	58*	39
Students reported that they started working on assignments right away “all or almost all of the time”	56*	31	49*	29
Students reported that wanting to become better in math or a better reader during the current school year was “exactly” like them	74*	45	71*	47
<b>Grade 8</b>				
Students reported that trying very hard even after making mistakes described them “very much”	39	28	30	30
Students reported that they started working on assignments right away “all or almost all of the time”	25	15	19	16
Students reported that wanting to become better in math or a better reader during the current school year was “exactly” like them	47	31	52	42

\* Significantly different ( $p < .05$ ) from corresponding result for lower-performing AI/AN students.

NOTE: AI/AN = American Indian/Alaska Native. Only selected response options are shown for each factor; not all response options are shown.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study and 2019 Reading and Mathematics Assessments.

## Composites Related to Engagement and Expectations

In addition to the array of questions about AI/AN culture and language that we examined in previous sections of the report, students also responded to survey questions that touched on such issues as self-efficacy and motivation. In this subsection, we will look at two composite variables that combine the results across multiple conceptually related survey questions focused on student engagement at school and how the students' academic efforts influence their expectations about the future.

### Engagement at School

This composite provides a look at what would be considered noncognitive factors that are potentially related to academic performance. Specifically, this composite is made up of AI/AN students' responses to four survey questions by which students indicated the extent to which they

- put a lot of effort into their schoolwork;
- desired to be one of the best students in their class;
- enjoyed being challenged in their classes; and
- felt they belonged at school.

Their composite score, then, reflects their self-view about their academic motivation and overall comfort in their schools.

Approximately 54 percent of AI/AN fourth-graders and 38 percent of eighth-graders indicated that the statements about school engagement described a person “a lot like” them (table 35). For each of the three response categories for this composite variable, percentages by school density showed no measurable differences among students who attended low density public schools, high density public schools, and BIE schools.

**Table 35. Percentage distribution of fourth- and eighth-grade AI/AN students who reported on the extent to which survey statements about engagement at school described a person like them, by school type/density: 2019**

Extent to which survey statements about engagement at school described a person like the student and grade	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
<b>Grade 4</b>				
Not like me	7	7	9	8
A little like me	39	38	40	38
A lot like me	54	55	51	54
<b>Grade 8</b>				
Not like me	17	18	16	16
A little like me	45	44	46	46
A lot like me	38	38	38	38

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

## Perceptions About Effort in School (grade 8 only)

This composite is constructed from four related survey questions. All of the questions point toward the future and invite students to make a connection between their current work and their aspirations.

In the first three questions, eighth-graders indicated the extent to which they agreed that if they put in enough effort, they would

- succeed in school;
- get into college; and
- get a good job.

In the final question making up this composite, students were asked the extent to which

- the things they were learning in school would prepare them for the lives they wanted to lead in the future.

Approximately 93 percent of AI/AN eighth-grade students believed that their schooling would bolster their chances for a successful future (i.e., combining the percentages for “agree” and “strongly agree” in table 36). AI/AN eighth-graders attending BIE schools were more likely to report that they “strongly agree[d]” that their academic efforts would positively affect their futures, compared to their peers attending low density and high density public schools.

**Table 36. Percentage distribution of eighth-grade AI/AN students who reported on the extent to which they agreed with survey statements about effort in school, by school type/density: 2019**

Extent to which survey statements about engagement at school described a person like the student	All AI/AN students	School type/density		
		Low density public schools	High density public schools	BIE schools
Disagree	7	8	7	6
Agree	41	43	40	39 <sup>a</sup>
Strongly agree	52	49	53	55 <sup>a,b</sup>

<sup>a</sup> Significantly different ( $p < .05$ ) from low density public schools. Comparisons are among the school type/density categories.

<sup>b</sup> Significantly different ( $p < .05$ ) from high density public schools. Comparisons are among the school type/density categories.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density public schools have less than 25 percent AI/AN students; high density public schools have 25 percent or more. All AI/AN students includes all AI/AN students sampled throughout the nation in public, private, BIE, and Department of Defense 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), 2019 National Indian Education Study.

# State Results

Demographic data as well as reading and mathematics performance results for AI/AN fourth- and eighth-graders in the 15 states for which state-level results can be reported are presented in this section. These states have relatively large populations of AI/AN students, representing about 66 percent of the AI/AN student enrollment in the nation in the 2018–19 school year. State-level data include results from AI/AN students who attended public and BIE schools in 2019. The national AI/AN sample referenced as a point of comparison to these state results is also made up of public and BIE school students only.

Readers should note that these 15 states vary across multiple demographic factors, and, when comparing performance, this variation should be kept in mind (table 37). While the state demographics differ slightly by grade and subject, percentages derived from fourth-grade reading are shown here for considerations of space. All four subject/grade demographics charts are shown in the *Appendix Tables* section.

**Table 37. Percentage of fourth-grade AI/AN students in NAEP reading, by selected school and student characteristics and jurisdiction: 2019**

Jurisdiction	School type/density			School location				Eligible for National School Lunch Program	Identified as English learners	Identified as students with disabilities
	Low density public schools	High density public schools	BIE schools	City	Suburb	Town	Rural			
<b>Nation</b>	<b>57</b>	<b>35</b>	<b>8</b>	<b>19</b>	<b>14</b>	<b>21</b>	<b>46</b>	<b>78</b>	<b>11</b>	<b>17</b>
Alaska	35	65	†	16	2	19	64	74	20	19
Arizona	41	38	22	25	8	23	45	86	8	14
Minnesota	65	31	4	22	9	22	46	81	2	31
Montana	30	70	#	15	1	43	41	93	23	21
Nebraska	66	34	†	30	#	18	51	86	#	27
New Mexico	25	45	30	22	4	25	48	95	39	12
North Carolina	48	47	5	2	4	24	70	67	1	16
North Dakota	31	45	24	14	7	11	67	83	1	21
Oklahoma	43	57	#	6	11	33	50	73	#	20
Oregon	85	15	#	20	30	25	25	83	12	13
South Dakota	26	54	20	20	2	10	68	87	#	20
Utah	63	31	6	7	41	9	43	76	19	20
Washington	81	16	3	17	24	22	37	82	20	19
Wisconsin	57	35	8	13	9	22	57	84	#	28
Wyoming	50	50	#	5	#	34	61	86	2	17

† Not applicable.

# Rounds to zero.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density schools have less than 25 percent AI/AN students. High density schools have 25 percent or more. The national and state results reported here include public and BIE schools only. 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), 2019 National Indian Education Study.

## Reading Grade 4

Among the 13 states with data available to report fourth-grade reading results for both 2015 and 2019, Alaska and Oklahoma had lower average scores in 2019 compared to 2015 (table 38). Nonetheless, Oklahoma fourth-graders were the only AI/AN students from among the reportable states who scored higher than their peers in the nation in 2019. Among the other 14 states, scores were not significantly different from the nation in 8 states and scores were lower than the nation in 6 states in 2019.

**Table 38. Average scores in NAEP reading for fourth-grade AI/AN students, by jurisdiction: Various years, 2005–19**

Jurisdiction	2005	2007	2009	2011	2015	2019
<b>Nation</b>	<b>203</b>	<b>204</b>	<b>204</b>	<b>202</b>	<b>204</b>	<b>202</b>
Alaska	183*	188*	179	175	184*	173
Arizona	184	184*	188	183*	189	193
Minnesota	—	205	199	195	197	194
Montana	201	204*	206*	199	199	194
Nebraska	—	—	—	—	—	186
New Mexico	186	193	188	190	184	191
North Carolina	—	202	202	192	198	200
North Dakota	198	201	202	205	202	199
Oklahoma	211	213	215	212	223*	216
Oregon	—	206	210	213	192	199
South Dakota	194	192	190	191	190	193
Utah	—	—	194	185	‡	191
Washington	—	204	212	201	196	203
Wisconsin	—	—	—	—	207	198
Wyoming	—	—	—	—	203	202

— Not available.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

\* Significantly different ( $p < .05$ ) from 2019.

NOTE: AI/AN = American Indian/Alaska Native. In 2019, NAEP reading results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP reading scale ranges from 0 to 500. The national and state results reported here include only public and Bureau of Indian Education (BIE) schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

## Reading Grade 8

At grade 8, AI/AN students in Montana, Oklahoma, and South Dakota scored lower in reading in 2019 compared to 2015 (table 39). In 2019, none of the reportable states scored higher than the nation in reading at grade 8. Scores were not significantly different from the nation in 10 states and scores were lower than the nation in 5 states in 2019.

**Table 39. Average scores in NAEP reading for eighth-grade AI/AN students, by jurisdiction: Various years, 2005–19**

Jurisdiction	2005	2007	2009	2011	2015	2019
<b>Nation</b>	<b>249</b>	<b>247</b>	<b>251</b>	<b>252</b>	<b>252</b>	<b>248</b>
Alaska	240*	236*	239*	234	231	229
Arizona	238	232	241	240	242	238
Minnesota	—	246	257	258	250	237
Montana	247*	249*	253*	256*	249*	239
Nebraska	—	—	—	—	—	237
New Mexico	236	233	236	240	241	237
North Carolina	—	236	235	245	250	248
North Dakota	248	246	242	244	245	247
Oklahoma	254	256	258	256	260*	253
Oregon	—	260	259	256	‡	257
South Dakota	238	241	242	240	245*	239
Utah	—	—	235	244	247	232
Washington	—	251	253	253	251	237
Wisconsin	—	—	—	—	253	251
Wyoming	—	—	—	—	‡	243

— Not available.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

\* Significantly different ( $p < .05$ ) from 2019.

NOTE: AI/AN = American Indian/Alaska Native. In 2019, NAEP reading results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP reading scale ranges from 0 to 500. The national and state results reported here include only public and Bureau of Indian Education (BIE) schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

## Mathematics Grade 4

Among the 12 states with data available to report fourth-grade mathematics results for both 2015 and 2019, AI/AN students in Alaska scored lower in 2019 compared to 2015 (table 40). In 2019, Oklahoma AI/AN fourth-graders scored higher in mathematics than their peers in the nation. Among the other 14 reportable states in 2019, scores were not significantly different from the nation in 8 states and scores were lower than the nation in 6 states.

**Table 40. Average scores in NAEP mathematics for fourth-grade AI/AN students, by jurisdiction: Various years, 2005–19**

Jurisdiction	2005	2007	2009	2011	2015	2019
<b>Nation</b>	<b>226</b>	<b>228</b>	<b>225</b>	<b>226</b>	<b>227</b>	<b>227</b>
Alaska	220*	218*	216*	213	219*	209
Arizona	215	213	213	215	218	216
Minnesota	—	234	232	232	223	222
Montana	223*	222*	227*	220	216	216
Nebraska	—	—	—	—	—	221
New Mexico	215	217	214	218	218	219
North Carolina	—	229	232	225	229	222
North Dakota	221	223	223	220*	224	226
Oklahoma	229*	234	234	234	235	237
Oregon	—	220	223	220	‡	219
South Dakota	217	215	217	218	215	213
Utah	—	—	218	214	‡	223
Washington	—	226	225	222	216	223
Wisconsin	—	—	—	—	231	229
Wyoming	—	—	—	—	220	219

— Not available.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

\* Significantly different ( $p < .05$ ) from 2019.

NOTE: AI/AN = American Indian/Alaska Native. In 2019, NAEP mathematics results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP mathematics scale ranges from 0 to 500 at grades 4 and 8. The NAEP reading scale ranges from 0 to 500. The national and state results reported here include only public and Bureau of Indian Education (BIE) schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

## Mathematics Grade 8

Among the 13 states with data available to report eighth-grade mathematics results for both 2015 and 2019, Alaska scored lower on average in 2019 compared to 2015 (table 41). As was the case in grade 4, Oklahoma AI/AN eighth-graders scored higher in mathematics than their peers in the nation in 2019. Among the other 13 reportable states in 2019, scores were not significantly different from the nation in 9 states and scores were lower than the nation in 4 states.

**Table 41. Average scores in NAEP mathematics for eighth-grade AI/AN students, by jurisdiction: Various years, 2005–19**

Jurisdiction	2005	2007	2009	2011	2015	2019
<b>Nation</b>	<b>264</b>	<b>264</b>	<b>266*</b>	<b>265</b>	<b>266*</b>	<b>262</b>
Alaska	264*	260*	262*	258*	257*	248
Arizona	256	255	254	253	258	257
Minnesota	—	266	275	263	261	267
Montana	259	260	260	263*	256	254
Nebraska	—	—	—	—	—	‡
New Mexico	251	250	252	256	258	253
North Carolina	—	261	256	265	261	262
North Dakota	260	260	260	262	259	264
Oklahoma	267	269	269	272	269	270
Oregon	—	264	273	260	‡	264
South Dakota	250	254	260	257	257	255
Utah	—	—	263	244	240	257
Washington	—	264	268	256	263	259
Wisconsin	—	—	—	—	273	266
Wyoming	—	—	—	—	252	258

— Not available.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

\* Significantly different ( $p < .05$ ) from 2019.

NOTE: AI/AN = American Indian/Alaska Native. In 2019, NAEP mathematics results are from a digitally based assessment; prior to 2019, results were from a paper-and-pencil-based assessment. The NAEP mathematics scale ranges from 0 to 500 at grades 4 and 8. The national and state results reported here include only public and Bureau of Indian Education (BIE) schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005–19 National Indian Education Studies.

Readers are encouraged to explore the *References* and *Supplemental Resources* on the following pages. The authors specifically invite the emerging generation of future AI/AN educational experts, policymakers, and leaders to get engaged with the issues articulated in this report, as well as the points of view accessed via the resources.

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# Technical Notes

## Sampling

To maximize student sample sizes and to support the reporting of results, all fourth- and eighth-grade AI/AN students in the sampled schools were selected for participation in the NIES survey. All students participating in the NIES survey completed the same grade-specific questionnaire regardless of the NAEP subject area in which they were assessed. Furthermore, questionnaires were administered to participating students' mathematics and reading/language arts teachers to collect information specific to instructional practices in those subject areas.

To obtain large enough samples to report reliable results for AI/AN students, schools with higher proportions of AI/AN students in selected states were oversampled. That is, the AI/AN students were selected for the NAEP assessments at a higher rate than they would be otherwise. All Bureau of Education (BIE) schools having grades 4 and/or 8 were also selected.

## Average Scores

NAEP average scores are reported for grades 4 and 8 on a 0–500 scale. Scales are created for each subject and grade independently, so even when another subject's scale has the same numerical range (0–500), average scores should not be compared across subjects (e.g., average reading scores should not be compared to average mathematics scores), nor should comparisons be made of average scores across grade levels.

## Percentiles

Examining the performance of AI/AN students at selected percentiles can indicate when the overall picture for students diverges by lower- or higher-performing students (table TN-1). A percentile indicates the percentage of AI/AN students whose scores fell at or below a particular score on the NAEP scale. The results for AI/AN students presented in this report are based on their performance in either the NAEP mathematics or reading assessment, and the references to "higher-performing" or "lower-performing" AI/AN students are in terms of those specific NAEP subject-area assessments (not general academic performance). Please note that the percentiles discussed in this report are based exclusively on the distribution for AI/AN students, not on the distribution of scores for all students participating in the NAEP reading or mathematics assessments.

**Table TN-1. Scores in NAEP reading and mathematics at selected percentiles for fourth- and eighth-grade AI/AN students: 2019**

Grade and subject	25th percentile	75th percentile
Grade 4 reading	179	232
Grade 8 reading	225	274
Grade 4 mathematics	206	248
Grade 8 mathematics	237	286

NOTE: The NAEP reading scale ranges from 0 to 500. The NAEP mathematics scale ranges from 0 to 500 at grades 4 and 8.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

## Statistical Testing

NAEP uses widely accepted statistical standards when making statistical comparisons. When making a number of comparisons in a single analysis, the probability of finding significance by chance for at least one comparison increases with the number of comparisons. NAEP findings are reported based on a statistical significance level of .05 (i.e., no more than a 5 percent probability that differences could be attributed to chance) with appropriate adjustments for multiple comparisons. NAEP uses the Benjamini-Hochberg false discovery rate (FDR) procedure for these analyses.

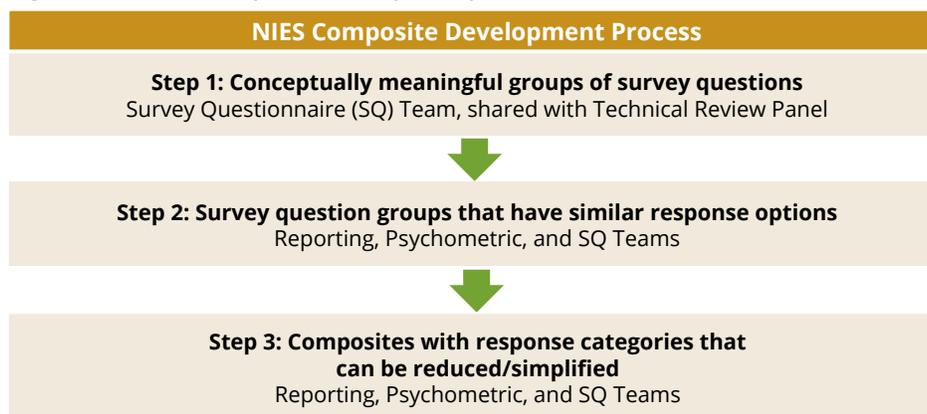
The tests of significance used in the analyses for this report are based on Student's *t* tests: these are statistical tests that consider both the size of the differences between the estimated average scores or percentages and the estimated standard errors of the statistics being compared. Standard errors are margins of error and estimates based on smaller student groups are likely to have larger margins of error.

The size of the standard errors may also be influenced by other factors such as the degree to which the assessed students are representative of the entire population. Standard errors for the estimates presented in this report are available in the NAEP Data Explorer (NDE). For the 2019 analyses, an additional component was included for the standard error calculation when linking scores across the two delivery modes from prior years (paper and computer).

## Composite Variables

The composite variables discussed in this report are made up of multiple conceptually-related questions from the NIES student survey questionnaires. The construction of the NIES composites was guided by a diverse team of experienced AI/AN educators, psychometricians, and experts in survey questionnaire development, psychological statistics, and research methods. The team brought technical/statistical knowledge to the task, as well as direct classroom experience with AI/AN students. The NIES composites were guided by the concept of *meaningful grouping*: i.e., the NIES composites are constructed from a *group* of related survey questions. The NIES composite development process was a lengthy process, involving multiple review stages that worked systematically through the questionnaires making evaluations as outlined in the chart below.

**Figure TN-1. NIES composite development process**



SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

Composite scores were tabulated by assigning a higher numeric value to responses representing a higher frequency or extent (e.g., “almost every day” or “a lot like me”) and a lower numeric value to responses that reflected a lower frequency or extent (e.g., “never” or “not like me”). Individual response values were then added together to get an overall composite value. For example, in the composite *Interest in Reading About Cultures*, student responses were assigned numeric values as follows:

- “This is not like me” = 1
- “This is a little like me” = 2
- “This is a lot like me” = 3

So, if a student responded “This is a lot like me” to all three of the questions that make up this composite, their “sum score” (or accumulated values assigned to their responses) would be 9 (i.e., numeric value of 3 x 3 questions). On the other end of the spectrum, a student who responded “This is not like me” to all three questions would have a sum score of 3 for *Interest in Reading About Cultures* (numeric value of 1 x 3 questions). The chart below shows how students with various sum scores were assigned to the final three overall composite categories (table TN-2). Only those students who responded to all of the questions within the given composite were included in the final analyses. Even so, missing data ranged from only 5 to 6 percent across all subject/grade/composite permutations so that the analyses presented here provide a valid representation of AI/AN student responses.

**Table TN-2. Sum scores for the composite variable *Interest in Reading About Cultures*, by composite category: 2019**

Interest in reading about cultures	
Composite category	Sum score
This is not like me	3
	4
This is a little like me	5
	6
	7
This is a lot like me	8
	9

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 National Indian Education Study.

All of the NIES survey questionnaires may be accessed at <https://nces.ed.gov/nationsreportcard/nies/questionnaire.aspx>.

The exact wording of the survey prompts for each of the composites is outlined on the following pages.

## Cultural Knowledge (grade 8 only)

How much do you know about each of the following? Select **one** answer choice on each row.

	Nothing	A little	Some	A lot
a. Your American Indian or Alaska Native history	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
b. Your American Indian or Alaska Native traditions and culture (way of life, customs)	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
c. Issues today that are important to American Indian or Alaska Native people	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D

While fourth-grade students were asked about their knowledge of their tribe or group, they were not asked multiple questions that would enable the construction of a composite.

## Interest in Reading About Cultures

Here are some sentences about reading. Select **one** answer choice on each row to show whether the sentence describes a person like you.

	This is not like me.	This is a little like me.	This is a lot like me.
a. When my teacher talks about American Indian or Alaska Native history or culture, I try to read more about it.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
b. I enjoy reading about American Indian or Alaska Native people.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
c. I enjoy reading about people who have different traditions and cultures (ways of life, customs) than I have.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C

## Engagement at School

Here are some sentences about your school. Select **one** answer choice on each row to show whether the sentence describes a person like you.

	This is not like me.	This is a little like me.	This is a lot like me.
a. I put a lot of effort into my schoolwork.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
b. I want to be one of the best students in my class.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
c. I enjoy being challenged in my classes.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C
d. I feel that I belong at school.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C

## Perceptions About Effort in School (grade 8 only)

How much do you agree with each of the following statements? Select **one** answer choice on each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a. If I put in enough effort, I will succeed in school.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
b. If I put in enough effort in school, I will get into college.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D
c. If I put in enough effort in school, I will get a good job.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D

How much are the things you are learning in school preparing you for the life you want to lead?

- A Not at all
- B A little
- C A fair amount
- D Very much

These questions about connections between school and the future were only presented to eighth-grade AI/AN students.

# Appendix Tables

**Table A-1. Total enrollment, AI/AN enrollment, and AI/AN students as a percentage of total enrollment in public elementary and secondary schools, and number of AI/AN students assessed at grades 4 and 8 in NAEP reading or mathematics, by jurisdiction: 2018-19 and 2019**

Jurisdiction	Total enrollment (all students)	AI/AN enrollment	AI/AN as percent of total	Number of AI/AN students assessed in NAEP reading or mathematics	
				Grade 4	Grade 8
<b>Nation</b>	<b>50,705,568</b>	<b>489,435</b>	<b>1.0</b>	<b>8,100</b>	<b>7,500</b>
<b>Total for reportable states</b>	<b>8,838,679</b>	<b>325,171</b>	<b>3.7</b>	<b>7,100</b>	<b>6,600</b>
Alaska	130,963	29,839	22.8	900	800
Arizona	1,141,511	51,012	4.5	1,200	900
Minnesota	889,304	14,839	1.7	300	300
Montana	148,844	16,533	11.1	500	500
Nebraska	326,392	4,353	1.3	200	100
New Mexico	333,537	33,152	9.9	1,000	900
North Carolina	1,552,497	18,105	1.2	300	300
North Dakota	113,845	9,567	8.4	600	600
Oklahoma	698,891	91,944	13.2	700	700
Oregon	609,507	7,279	1.2	200	100
South Dakota	138,975	15,001	10.8	600	600
Utah	677,031	7,124	1.1	100	200
Washington	1,123,736	13,451	1.2	200	200
Wisconsin	859,333	9,530	1.1	200	200
Wyoming	94,313	3,442	3.6	200	200

NOTE: AI/AN = American Indian/Alaska Native. The numbers of students assessed in NAEP reading or mathematics are rounded to the nearest hundred. The national results include public, private, Bureau of Indian Education (BIE), and Department of Defense schools. The state results include public and BIE schools only. Total enrollment includes pre-kindergarten through twelfth grade.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Public Elementary/Secondary Education Survey", 2018-19 v.1a. National Assessment of Educational Progress (NAEP), 2019 Reading and Mathematics Assessments.

**Table A-2. Percentage of fourth-grade AI/AN students in NAEP reading, by selected school and student characteristics and jurisdiction: 2019**

Jurisdiction	School type/density			School location				Eligible for National School Lunch Program	Identified as English learners	Identified as students with disabilities
	Low density public schools	High density public schools	BIE schools	City	Suburb	Town	Rural			
<b>Nation</b>	<b>57</b>	<b>35</b>	<b>8</b>	<b>19</b>	<b>14</b>	<b>21</b>	<b>46</b>	<b>78</b>	<b>11</b>	<b>17</b>
Alaska	35	65	†	16	2	19	64	74	20	19
Arizona	41	38	22	25	8	23	45	86	8	14
Minnesota	65	31	4	22	9	22	46	81	2	31
Montana	30	70	#	15	1	43	41	93	23	21
Nebraska	66	34	†	30	#	18	51	86	#	27
New Mexico	25	45	30	22	4	25	48	95	39	12
North Carolina	48	47	5	2	4	24	70	67	1	16
North Dakota	31	45	24	14	7	11	67	83	1	21
Oklahoma	43	57	#	6	11	33	50	73	#	20
Oregon	85	15	#	20	30	25	25	83	12	13
South Dakota	26	54	20	20	2	10	68	87	#	20
Utah	63	31	6	7	41	9	43	76	19	20
Washington	81	16	3	17	24	22	37	82	20	19
Wisconsin	57	35	8	13	9	22	57	84	#	28
Wyoming	50	50	#	5	#	34	61	86	2	17

† Not applicable.

# Rounds to zero.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density schools have less than 25 percent AI/AN students. High density schools have 25 percent or more. The national and state results reported here include public and BIE schools only. 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), 2019 National Indian Education Study.

**Table A-3. Percentage of eighth-grade AI/AN students in NAEP reading, by selected school and student characteristics and jurisdiction: 2019**

Jurisdiction	School type/density			School location				Eligible for National School Lunch Program	Identified as English learners	Identified as students with disabilities
	Low density public schools	High density public schools	BIE schools	City	Suburb	Town	Rural			
<b>Nation</b>	<b>57</b>	<b>36</b>	<b>7</b>	<b>17</b>	<b>13</b>	<b>26</b>	<b>44</b>	<b>73</b>	<b>8</b>	<b>14</b>
Alaska	34	66	†	15	2	17	66	70	27	18
Arizona	47	35	18	34	8	20	38	86	7	12
Minnesota	71	25	4	4	6	14	75	72	#	32
Montana	37	61	2	19	1	35	44	90	12	17
Nebraska	60	40	†	19	13	14	54	70	4	27
New Mexico	19	58	23	22	4	29	45	95	28	17
North Carolina	51	41	8	4	2	37	57	70	#	15
North Dakota	36	49	15	15	5	13	67	78	4	16
Oklahoma	38	61	1	6	9	30	55	70	1	15
Oregon	85	15	#	27	#	41	32	80	8	14
South Dakota	19	61	21	10	#	26	64	89	#	14
Utah	71	29	#	21	24	18	37	60	15	29
Washington	75	21	4	22	15	29	35	82	14	25
Wisconsin	73	21	7	24	13	17	46	84	6	17
Wyoming	40	60	#	6	#	27	67	85	8	12

† Not applicable.

# Rounds to zero.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density schools have less than 25 percent AI/AN students. High density schools have 25 percent or more. The national and state results reported here include public and BIE schools only. 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), 2019 National Indian Education Study.

**Table A-4. Percentage of fourth-grade AI/AN students in NAEP mathematics, by selected school and student characteristics and jurisdiction: 2019**

Jurisdiction	School type/density			School location				Eligible for National School Lunch Program	Identified as English learners	Identified as students with disabilities
	Low density public schools	High density public schools	BIE schools	City	Suburb	Town	Rural			
<b>Nation</b>	<b>58</b>	<b>34</b>	<b>8</b>	<b>18</b>	<b>17</b>	<b>20</b>	<b>45</b>	<b>75</b>	<b>11</b>	<b>18</b>
Alaska	35	65	†	18	2	16	64	77	21	20
Arizona	41	36	23	24	9	20	46	89	7	16
Minnesota	69	28	3	21	15	22	43	75	#	26
Montana	26	74	#	15	2	38	46	92	20	21
Nebraska	69	31	†	13	10	34	42	78	#	22
New Mexico	27	44	29	20	5	25	51	95	42	14
North Carolina	56	39	5	1	17	35	47	73	4	19
North Dakota	36	40	24	15	10	13	62	83	1	18
Oklahoma	42	58	#	8	13	28	51	70	2	20
Oregon	83	17	#	18	23	28	30	84	4	14
South Dakota	24	56	20	19	2	9	70	88	#	20
Utah	60	31	9	13	16	27	43	83	31	25
Washington	78	20	2	13	30	26	31	76	26	18
Wisconsin	50	43	7	21	7	18	54	72	#	12
Wyoming	37	63	#	3	#	28	69	96	3	20

† Not applicable.

# Rounds to zero.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density schools have less than 25 percent AI/AN students. High density schools have 25 percent or more. The national and state results reported here include public and BIE schools only. 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), 2019 National Indian Education Study.

**Table A-5. Percentage of eighth-grade AI/AN students in NAEP mathematics, by selected school and student characteristics and jurisdiction: 2019**

Jurisdiction	School type/density			School location				Eligible for National School Lunch Program	Identified as English learners	Identified as students with disabilities
	Low density public schools	High density public schools	BIE schools	City	Suburb	Town	Rural			
<b>Nation</b>	<b>57</b>	<b>35</b>	<b>7</b>	<b>17</b>	<b>15</b>	<b>25</b>	<b>44</b>	<b>72</b>	<b>8</b>	<b>18</b>
Alaska	31	69	†	15	1	16	68	70	26	19
Arizona	48	35	18	31	8	25	36	81	7	15
Minnesota	73	24	4	15	7	13	65	70	#	12
Montana	35	64	1	16	#	43	40	86	10	17
Nebraska	‡	‡	†	‡	‡	‡	‡	‡	‡	‡
New Mexico	19	58	23	22	3	31	44	92	27	17
North Carolina	51	41	8	2	5	42	51	73	1	25
North Dakota	38	48	14	16	6	13	66	81	1	20
Oklahoma	41	58	1	7	15	27	51	65	1	17
Oregon	84	16	#	10	4	52	34	79	8	19
South Dakota	26	54	20	16	#	25	58	85	#	11
Utah	62	38	#	7	24	29	40	78	20	14
Washington	73	22	4	19	29	18	33	93	17	20
Wisconsin	63	30	7	5	18	42	35	71	#	29
Wyoming	47	53	#	9	#	25	66	79	9	25

† Not applicable.

# Rounds to zero.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

NOTE: AI/AN = American Indian/Alaska Native. BIE = Bureau of Indian Education. School density indicates the proportion of AI/AN students enrolled. Low density schools have less than 25 percent AI/AN students. High density schools have 25 percent or more. The national and state results reported here include public and BIE schools only. 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), 2019 National Indian Education Study.

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## National Indian Education Study 2019

May 2021

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