

National Indian Education Study

Part II: The Educational Experiences of Fourth- and Eighth-Grade American Indian and Alaska Native Students Statistical Analysis Report



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Statistical Analysis Report

October 2006

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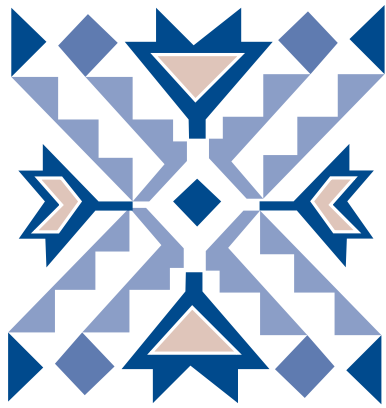
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EXECUTIVE SUMMARY

This report presents results from a national survey, conducted in 2005, that examined the educational experiences of American Indian/Alaska Native (AI/AN) students in grades 4 and 8, with particular emphasis on the integration of native language and culture into school and classroom activities. Students, teachers, and school principals all participated in the survey, which constituted Part II of the National Indian Education Study (NIES). NIES was a two-part study conducted by the National Center for Education Statistics (NCES), with the support of the Office of Indian Education (OIE), for the U.S. Department of Education. Part I of NIES collected information on the academic performance of AI/AN students, as measured by the National Assessment of Educational Progress (NAEP).

AI/AN students represent about 1 percent of the total student population in the United States. In 2005, this represented approximately 46,000 students at grade 4 and 45,000 at grade 8 who were identified as AI/AN in official school records. A nationally representative sample of about 14,500 of these students (combined grades 4 and 8 in reading and mathematics) was selected to participate in NIES Part I. A smaller sample of those students (approximately 5,600) was selected to participate in NIES Part II. The Part I and Part II samples included students attending public, private, and Bureau of Indian Affairs (BIA) schools. The NIES Part II teacher sample was made up of the mathematics and reading/language arts teachers of the sampled students, while the school principal sample consisted of the principals at the schools these students attended. Questionnaires for the Part II survey were developed with the guidance of a technical review panel assembled to advise NIES.

This report describes important aspects of the educational experiences of AI/AN students in grades 4 and 8. Although the central focus of the report is AI/AN students, information is also provided about non-AI/AN students, where available, so that the reader can compare the characteristics of AI/AN students with their peers from different backgrounds. The source of the information on non-AI/AN students is NAEP, which included a survey component to collect limited demographic information about all students who participated in 2005. The NAEP survey, however, did not collect information on the role of AI/AN culture or language in education—topics which are the central focus of NIES. The NIES Part II report also provides comparisons between AI/AN students at high density and low density schools. High density schools are defined by the OIE as schools in which at least 25 percent of the students are American Indian or Alaska Native. All other schools are classified as low density.

All comparisons are based on statistical tests of significance that used Student's *t* statistics. Only differences that have been determined to be statistically significant at the .05 level after controlling for multiple comparisons are discussed in this report.

Findings are presented in four broad areas: characteristics of AI/AN students, their schools, their teachers, and their curriculum. The Technical Notes section provides information about sampling, interpreting statistical significance, and other technical features. The Data Appendix provides tables that support the findings provided in this report.

AI/AN students

- More than one-half of American Indian/Alaska Native (AI/AN) students at both grades 4 and 8 were located in the Mountain or South Central regions of the country. By comparison, over one-half of non-AI/AN students at each grade level were located in the Atlantic and North Central regions, and non-AI/AN students were relatively infrequent in the regions where AI/AN students are concentrated. (Definitions of regions, community types, and other classification terms used in the Executive Summary are given in the Technical Notes.)
- AI/AN students were about equally divided between schools located in small towns/rural communities and schools in more urban areas (i.e., urban fringe/large town and central city). Non-AI/AN students, in comparison, were more concentrated at schools in urban fringe communities/large towns and central cities; about three-quarters of non-AI/AN students attended schools in such localities.
- Among AI/AN students, 50 percent at grade 4 and 45 percent at grade 8 attended high density schools. Compared to fourth-grade AI/AN students at low density schools, more fourth-grade students at high density schools were located in the Mountain or South Central regions and in small town/rural communities. At eighth grade, AI/AN students at high density schools were more concentrated in the Mountain region and in small town/rural communities.
- More than 60 percent of AI/AN students at each grade level qualified for free or reduced-price school lunch under the National School Lunch Program. This was greater than in the non-AI/AN population, where 41 percent of fourth-grade students and 36 percent of eighth-grade students qualified. Also, among AI/AN students, more students at high density schools than at low density schools qualified.

- A higher percentage of AI/AN students than non-AI/AN students was classified as English language learners (ELL) by their schools. Fourteen percent of AI/AN students in grade 4 and 13 percent in grade 8 held this classification. Moreover, for AI/AN students attending high density schools, the ELL classification rates were 26 percent at grade 4 and 24 percent at grade 8, significantly higher than the rates at low density schools.
- Seventeen percent of AI/AN students in grade 4 and 15 percent in grade 8 were classified by their schools as students with disabilities (SD). A smaller percentage of non-AI/AN students—9 percent at each grade level—was classified as SD. Differences by school density were also apparent at grade 4; at this grade level, a higher percentage of AI/AN students at low density schools than at high density schools was SD.
- About two-thirds of the AI/AN students in grade 4 and about three-quarters of the AI/AN students in grade 8 said they would probably go to college. One percent of the AI/AN students at each grade level thought that they probably would not graduate from high school. Some students at each grade (28 percent at grade 4 and 10 percent at grade 8) reported that they did not know their educational goals.

Schools serving AI/AN students

- About one-third of American Indian/Alaska Native (AI/AN) students at each grade level attended schools where few other students were AI/AN. That is, they attended schools where the percentage of AI/AN students was 5 percent or less. At the other end of the spectrum, about one-quarter of AI/AN students attended schools where the percentage of AI/AN students was greater than 75 percent.
- Sixty percent of AI/AN students in grade 4 and 54 percent of AI/AN students in grade 8 attended schools where more than 50 percent of the student body was eligible for free or reduced-price school lunch. Among non-AI/AN students, 43 percent in grade 4 and 34 percent in grade 8 attended schools with such high concentrations of students eligible for free or reduced-price school lunch. Higher percentages of AI/AN students attending high density

schools (49 percent at grade 4 and 38 percent at grade 8) than low density schools (15 percent at grade 4 and 13 percent at grade 8) were at schools where more than 75 percent of the student body was eligible for free or reduced-price school lunch.

- The reported involvement of tribal or village representatives in school-related activities varied by high density and low density schools. At high density schools, principals reported widespread involvement of tribal or village representatives in many school-related activities such as visiting the school to share native traditions and cultures; attending cultural, sporting, or social events; and helping in the classroom or school. For example, 93 percent of grade 4 students and 75 percent of grade 8 students attended high density schools where tribal or village representatives visited to share native traditions and cultures.
- Fifty-two percent of grade 4 AI/AN students and 63 percent of grade 8 AI/AN students attended schools in which few of the teaching staff (0 to 5 percent) were identified as AI/AN. In high density schools, the presence of AI/AN faculty was greater compared to low density schools. Twenty-five percent of grade 4 AI/AN students and 5 percent of grade 8 AI/AN students attended high density schools where more than three-quarters (76 to 100 percent) of the teachers were identified as AI/AN.
- Thirty-seven percent of grade 4 AI/AN students and 38 percent of grade 8 AI/AN students attended schools where they had access to some sort of instruction in their own native languages. Extracurricular activities focusing on native culture were also available to 51 percent of grade 4 students and 38 percent of grade 8 students. More AI/AN students at high density schools than at low density schools had access to these services.

Teachers serving AI/AN students

- Eighty-nine percent of grade 4 American Indian/Alaska Native (AI/AN) students were taught by teachers with regular or advanced teaching certificates. At grade 8, the percentages of AI/AN students whose teachers had regular or advanced teaching certificates were 78 percent for mathematics and 83 percent for reading/language arts. There were no significant differences in teacher certification

between AI/AN and non-AI/AN students or between AI/AN students at high density and low density schools.

- Three-quarters of AI/AN students at grade 4 had teachers whose undergraduate majors were in education. More grade 4 AI/AN students than non-AI/AN students, and more grade 4 AI/AN students at high density schools than at low density schools, had teachers with education majors.
- At eighth grade, 36 percent of AI/AN students had mathematics teachers, and 52 percent had reading/language arts teachers, whose undergraduate majors aligned with their teaching specialization. Compared to AI/AN students, the percentage of non-AI/AN students at grade 8 whose teachers reported these types of majors was significantly higher for mathematics (45 percent) but not for reading (55 percent). There were no significant differences in the majors reported by the teachers of grade 8 AI/AN students at high density and low density schools.
- Eighty-one percent of AI/AN students at grade 4 were taught by teachers with at least 5 years of total teaching experience. At eighth grade, 72 percent had mathematics teachers, and 74 percent had reading/language arts teachers, with this amount of total teaching experience.
- At eighth grade, 36 percent of AI/AN students had mathematics teachers and 33 percent had reading/language arts teachers who had fewer than 5 years of teaching experience in their discipline. More AI/AN students at high density schools than at low density schools had mathematics teachers with less than 5 years experience teaching in their discipline.
- Forty percent of AI/AN students at grade 4 were being instructed by teachers who had spent fewer than 5 years at their current school. At grade 8, the corresponding percentages were 53 percent for mathematics teachers and 49 percent for reading/language arts teachers.
- Twenty-eight percent of grade 4 AI/AN students had teachers who spoke and understood, at least to some extent, tribal or village languages spoken by the local AI/AN community. At grade 8, the corresponding percentages were 25 percent for mathematics teachers



and 23 percent for reading/language arts teachers. For all grades and subject areas, more AI/AN students at high density schools than at low density schools had teachers with these capabilities.

AI/AN culture and language in the curriculum

- Twenty-one percent of American Indian/Alaska Native (AI/AN) students at grade 4 had teachers who reported integrating an AI/AN perspective into their curriculum either daily or extensively. Ten percent of AI/AN students at grade 8 had mathematics teachers who reported daily or extensive use of an AI/AN perspective, while 16 percent had reading/language arts teachers who did the same. More AI/AN students at high density schools than at low density schools had teachers who reported this level of integration.
- The reported use of culturally relevant mathematics and language arts activities was more common in high density schools than in low density schools. For example, 29 percent of grade 4 AI/AN students and 45 percent of grade 8 AI/AN students at high density schools had teachers who reported using mathematics problems that were reflective of AI/AN homes and communities at least once a month, compared to 5 percent and 18 percent, respectively, at low density schools. Correspondingly, 50 percent of grade 4 AI/AN students and 40 percent of grade 8 AI/AN students at high density schools had teachers who reported assigning literature with AI/AN themes at least once a month, compared to 22 percent and 14 percent, respectively, at low density schools.
- The use of the students' AI/AN languages in mathematics or reading/language arts instruction was infrequent. The use of these languages, including the occasional use of isolated words or phrases, was reported by teachers of only small percentages of

AI/AN students. For example, 15 percent of grade 4 students and 12 percent of grade 8 students had teachers who reported such use in reading/language arts. The percentage of AI/AN students at high density schools whose teachers reported AI/AN language use was higher than the percentage at low density schools.

- About 90 percent of AI/AN students at grade 4 and about 80 percent of AI/AN students at grade 8 had teachers who reported using state content standards “a lot” in planning mathematics and reading/language arts lessons. A high percentage of AI/AN students (about 90 percent or greater) also had school principals who reported that state standards had “much influence” on their schools' mathematics and reading/language arts curriculum.
- Generally, the use of state or locally developed AI/AN content or cultural standards was reported more frequently by teachers of AI/AN students at high density schools than by teachers at low density schools. Twenty-three percent of grade 4 AI/AN students in high density schools had teachers who reported “some” or “a lot” of use of AI/AN content/cultural standards in mathematics, and 31 percent had teachers who reported “some” or “a lot” of use in reading/language arts. Among grade 8 AI/AN students in high density schools, 12 percent had mathematics teachers and 14 percent had reading/language arts teachers who reported using these standards “some” or “a lot.”

In summary, NIES Part II provided baseline information on many aspects of the educational experiences of AI/AN students. It is hoped that this information will help inform efforts to address the educational and culturally related academic needs of AI/AN students so that this diverse group can meet the same challenging state achievement standards as all other students.

The NIES Part I report describes the performance of American Indian and Alaska Native students on the National Assessment of Educational Progress (NAEP) 2005 reading and mathematics assessments. Performance results from Part I will not be linked to the survey findings reported here. Such associations will be examined in future data collections scheduled for 2007.

Acknowledgments

This report is the culmination of the effort of many individuals. The National Indian Education Study (NIES) was a collaborative effort among the National Center for Education Statistics (NCES), the U.S. Department of Education, the Office of Indian Education (OIE), and the several contractors responsible for the conduct of this important project.

OIE requested this study and provided the funding to make it possible. NCES, which conducted NIES on behalf of the OIE, oversaw all aspects of the study, from instrument development and field testing, to sample design, data collection, analysis, and reporting. NCES staff—Peggy Carr, Arnold Goldstein, and Steven Gorman—worked closely and collegially with the authors to produce this report, with Taslima Rahman acting as project officer. Jeff Johnson and Donna Sabis-Burns of the OIE made important contributions to study design and implementation, and provided insightful reviews of the various drafts of the report.

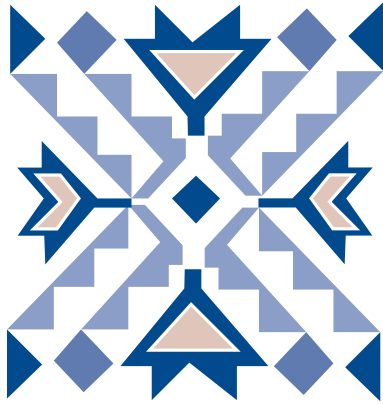
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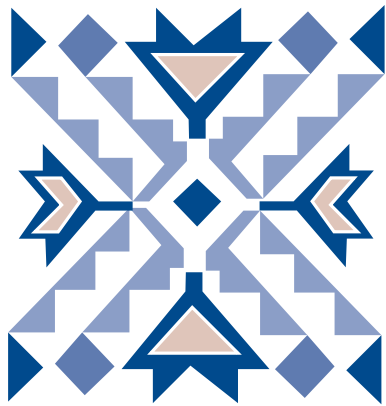
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CHAPTER 1

Introduction

This report presents findings from the National Indian Education Study (NIES) Part II, a national survey to describe the educational experiences of American Indian/Alaska Native (AI/AN) students across the United States. Survey participants included AI/AN students in grades 4 and 8, their teachers, and their school principals. These grades were chosen for the study because of the availability of national achievement data provided by the NAEP assessments at grades 4 and 8.

The two-part NIES was conducted in 2005 by the National Center for Education Statistics (NCES), with the support of the Office of Indian Education (OIE), for the U.S. Department of Education. Results from Part I, which examined the performance of AI/AN students in mathematics and reading on the National Assessment of Educational Progress (NAEP), are published in *National Indian Education Study Part I: The Performance of American Indian and Alaska Native Fourth- and Eighth-Grade Students on NAEP 2005 Reading and Mathematics Assessments* (NCES 2006-463).

Because different samples responded to each part of the study, the NIES Part I performance results and the NIES Part II survey results cannot be analyzed together. However, information on both the educational experiences and academic achievement of AI/AN students will be obtained in a future data collection scheduled for 2007.

What was the background for the study?

AI/AN students represent about one percent of the total student population in the United States (Freeman and Fox, 2005). According to Census figures, about 36 percent of the total AI/AN population lives in tribal areas (see <http://www.census.gov/prod/2006pubs/censr-28.pdf>).¹ Executive Order 13336, “American Indian and Alaska Native Education,” was enacted in 2004 to support educational efforts on behalf of AI/AN students nationwide (see <http://www.whitehouse.gov/news/releases/2004/04/20040430-10.html>).

Section 3 of the Executive Order calls for

...the compilation of comprehensive data on the academic achievement and progress of American Indian and Alaska Native students toward meeting the challenging student academic standards of the No Child Left Behind Act of 2001.

¹ Tribal areas include federal and state American Indian reservations, Oklahoma tribal statistical areas, tribal designated statistical areas, state designated American Indian statistical areas, and Alaska Native village statistical areas.

... [and] assessment of the impact and role of native language and culture on the development of educational strategies to improve academic achievement.

To date, only a very few researchers have carried out experimental or quasi-experimental studies to investigate whether children exposed to educational programs that incorporate native language and culture exhibit better academic performance than children in matched comparison groups (Demmert and Towner, 2003). Within this small group, Tharp (1982) describes a series of quasi-experimental (successive-cohorts analysis) and experimental studies carried out with Polynesian-Hawaiian students in the Kamehameha Early Education Program (KEEP). In each of the studies, students participating in the KEEP program, which emphasized culturally based pedagogy, had higher test scores than matched control groups receiving a standard curriculum. Suggestive evidence is also available from comparative studies with weaker designs. For example, Bacon, Kidd, and Seaberg (1982) carried out a non-experimental comparison study of the effectiveness of bilingual instruction with Cherokee Indian students in which considerable efforts were made to establish adequate comparison groups through the use of control variables and covariates. Children in the bilingual program had higher mathematics and reading scores than the controls.

NIES Part II is a survey, not an experimental or quasi-experimental study. The survey information, however, allows one to explore the extent to which tribal languages and cultures are integrated into the education of AI/AN students. Thus, NIES provides a context for further understanding of how such culture and language can play a role in the education of AI/AN students.

How was the information collected?

The survey included five sets of questions, each designed to collect information from one of the groups that participated in NIES: grade 4 students, grade 8 students, mathematics and reading/language arts teachers of the participating students at each grade level, and principals of the schools from which

the students were selected. The questionnaires were developed with the guidance of a Technical Review Panel (TRP) assembled to advise the NIES. The survey questions were designed to gather information on

- AI/AN students;
- schools attended by AI/AN students;
- teachers of AI/AN students; and
- curriculum, standards, and assessments used by teachers and schools serving AI/AN students.

Throughout the survey, questions were included to measure the extent to which AI/AN students were exposed to native language and culture in their lives and at school. In addition, a space was provided at the end of each survey for respondents' comments.

For further information about the questionnaires, and the manner in which they were administered, refer to the Technical Notes of this report. The questionnaires can be viewed online at <http://nces.ed.gov/nationsreportcard/nies.asp>.

Who participated in NIES?

The NIES Part II sample was designed to produce information representative of all AI/AN students at grades 4 and 8. To create the sample, schools were selected first, and then students within the schools were selected. The target population of schools included all schools in the United States that had at least one AI/AN student enrolled in either grade 4 or grade 8. The target population of students was all grade 4 and grade 8 students who were identified as AI/AN by official school records (approximately 46,000 students at grade 4 and 45,000 at grade 8). If, at the time of the survey, it was determined that the AI/AN designation in the school records was not correct, the student was reclassified at the school's direction and excluded from NIES.

The sample included about 5,600 eligible students at approximately 550 schools located throughout the United States. The three types of schools in the sample were public, private, and BIA. The unweighted

percentage of eligible schools by type were, approximately, 84 percent public, 4 percent private, and 12 percent BIA. About 480 of these eligible schools actually participated in the Part II survey.

The questionnaires were completed by about 2,600 grade 4 students and 2,500 grade 8 students at approximately 480 schools. Also responding to the survey were about 480 grade 4 teachers, 820 grade 8 teachers, 240 grade 4 principals, and 230 grade 8 principals associated with these students. Some principals responded for both grade 4 and grade 8.

The weighted school response rates were 87 percent at grade 4 and 93 percent at grade 8. The weighted student response rates were 95 percent at grade 4 and 91 percent at grade 8. No separate samples were drawn for teachers or school principals. However, a weighted item response rate was calculated for teachers and school principals based on completed questionnaires obtained using student weights, since the student was the unit of analysis. Accordingly, at grade 4, completed questionnaires were obtained from school principals for 100 percent of students and from teachers for 99 percent of students. At grade 8, completed school questionnaires were obtained for 99 percent of students, completed mathematics teacher questionnaires were obtained for 93 percent of students, and completed reading teacher questionnaires were obtained for 94 percent of students. See the Technical Notes for unweighted response rates.

The intention of this report was to portray the general circumstances of AI/AN students nationally, rather than for specific regions or tribal groups. The survey did ask students (and teachers) to give the name of their tribe. Since students do not always know this information reliably, and since different respondents may designate their tribal affiliations in different ways or at different levels (e.g., Navajo or a specific band of Navajo), special analysis is required to report such data. The scope of this report does not include such analysis; however, the data will be made available in a data file that may be used for secondary analysis by independent researchers.

How are results presented?

Although the central focus of the report is AI/AN students, information is also provided about non-AI/AN students, where available, so that the reader can compare the characteristics of AI/AN students with their peers from different backgrounds. These comparisons are based on information about non-AI/AN students collected through NAEP, another nationally representative survey. The comparisons are facilitated by the fact that NIES and NAEP included a number of questions that were asked in exactly the same way in both surveys.

The report provides comparisons between AI/AN students and non-AI/AN students with regard to the basic demographic characteristics of students and schools and teachers' general preparation for teaching. Most of the topics addressed by NIES, however, have never previously been asked of national samples, and so no comparative data are available.

Because the sample is designed to be representative of students (rather than schools or teachers), the report is written with the student as the focus. For example, information about teacher credentialing is reported as "percentage of students receiving instruction from teachers with regular teaching certificates" rather than "percentage of teachers holding regular teaching certificates." Results are weighted to represent the full population of AI/AN and non-AI/AN students in the United States in grades 4 and 8.

Throughout the report, results are displayed separately for grades 4 and 8. Within grade level, comparisons to non-AI/AN students are provided from NAEP for all topics when available. In addition, many of the results for AI/AN students are further separated to distinguish between students attending schools with high or low proportions of AI/AN students. In keeping with OIE usage, school density is the term used here to refer to the proportion of AI/AN students, and, also in keeping with OIE usage, high density schools are defined as those in which 25 percent or more of the students are AI/AN. Schools in which less than 25 percent of

the students are AI/AN are considered low density schools. This classification scheme has also been used in previous NCES reports examining AI/AN education (Pavel, Curtis, and Whitener, 1997).

Most of the results presented in the report are based on the responses to individual survey questions. In a few cases, responses from several survey questions have been combined to create an average rating. See the Technical Notes for information about the construction of the average ratings.

All of the estimates for AI/AN students are derived from the NIES surveys. Due to sampling, these estimates may differ from previously published estimates derived from NAEP. However, in most cases the differences fall within the standard errors of the estimates. In addition, some of the percentages reported in the text are constructed by combining data across two or more of the categories shown in the accompanying tables or figures. The combined percentages may differ slightly from the table values due to rounding.

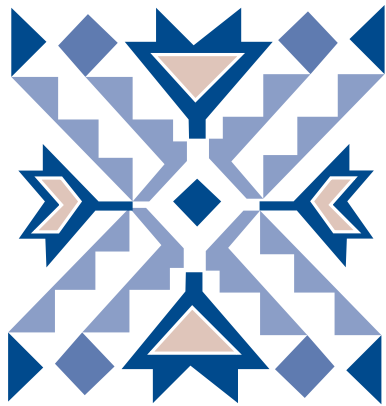
The significance of differences between groups of students that are reported here are based on statistical tests (Student's *t* statistics) that consider both the size of the differences between percentages or means and the standard errors of those statistics. Only differences that have been determined to be statistically significant at the .05 level, after controlling for multiple comparisons, are identified as significant in the tables and figures and addressed in the text. The reader is cautioned to rely on the reported differences in the text and tables rather than on the apparent magnitude of any difference. The standard errors of results shown in tables and figures are provided in the Data Appendix to this report.

Cautions in interpretation

Although comparisons are made between AI/AN and non-AI/AN students, as well as between AI/AN students at high density and low density schools, this should not be interpreted as evidence that the race/ethnicity of the students or the density of the AI/AN school population are the causes of any significant differences in other student, teacher, and school characteristics. There are many reasons why students, teachers, and school programs may differ, including ones that are not examined in the current report or measured in the NIES surveys. This report is purely descriptive in nature, and readers are cautioned not to draw causal inferences based solely on the results presented here.

How is the report organized?

The report is organized into five chapters. After this introductory chapter, chapter 2 describes the AI/AN students and explores the extent to which these students report identification with and exposure to AI/AN culture. Chapter 3 describes the schools that serve AI/AN students, including the efforts that these schools make to engage with parents and the wider AI/AN community. Chapter 4 discusses the characteristics of the teachers who provide mathematics and reading instruction to AI/AN students, including the teachers' general qualifications and their specific preparation to teach AI/AN students. Chapter 5 discusses the extent to which AI/AN culture and language are integrated into the curriculum, as well as assessments and standards used by teachers and schools serving AI/AN students. The Technical Notes section discusses technical procedures and terms. The Data Appendix provides more detailed results for some questions in the survey and standard error tables for all of the results discussed in this report.



CHAPTER 2

Description of American Indian/Alaska Native Students

This chapter presents information from NIES Part II that describes the basic demographic characteristics of American Indian/Alaska Native (AI/AN) students and explores the extent to which language and culture are integrated into the education of these students. Student perceptions about school and learning, family support for education, and engagement with the school are also examined.

Demographic information is presented for AI/AN students nationwide and is compared with similar information for a national sample of non-AI/AN students. In addition, information is presented separately for AI/AN students in high density and low density schools, a distinction that is consistent with the Office of Indian Education characterization of schools that serve AI/AN students. High density schools are schools in which at least 25 percent of all enrolled students are AI/AN, while low density schools enroll fewer than 25 percent AI/AN students.

Nationally, AI/AN students are almost equally divided between these two types of schools. Fifty percent of AI/AN students in grade 4 and 45 percent in grade 8 attend high density schools (table A-1); the remaining AI/AN students attend low density schools. As will be seen later in this chapter, the characteristics of AI/AN students who attend high density schools differ in many ways from the characteristics of AI/AN students who attend low density schools.

Where are AI/AN students located?

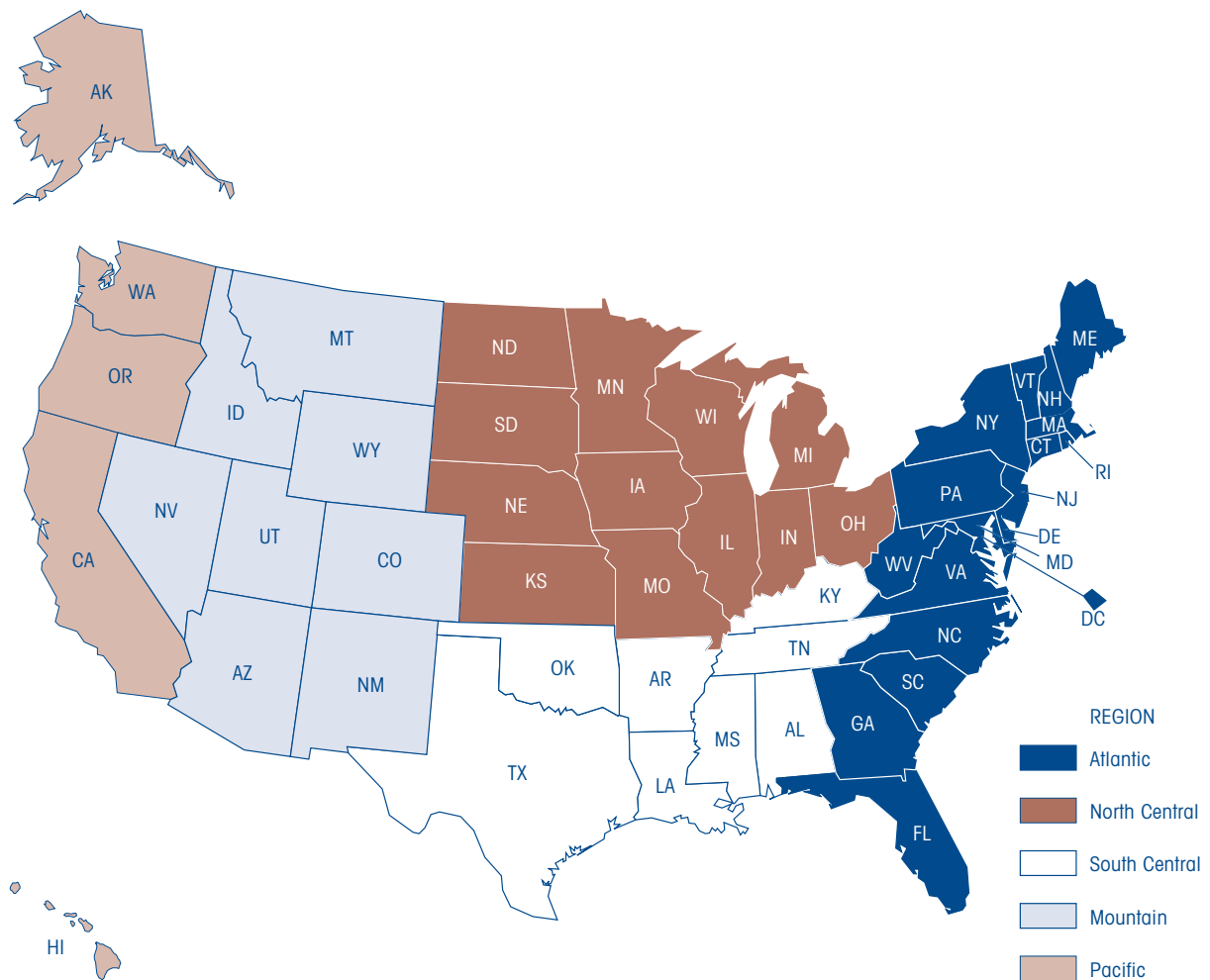
We begin with the basic question, “Where are AI/AN students located?” The regions and types of communities reported here were derived from the locations of the schools the students attended. The reader should bear in mind that some students may commute to schools in different communities. In addition, among the 7 percent of AI/AN students who attend Bureau of Indian Affairs (BIA) schools,

about 20 percent are at boarding schools. For more information on BIA schools, see <http://www.oiep.bia.edu/docs/Finger%20Tip%20Fact%202005.pdf>.

Location by region

The five regions used in this report are shown in figure 2-1. They are based on Census divisions or aggregations of Census divisions.

Figure 2-1. Regions for the National Indian Education Study: 2005



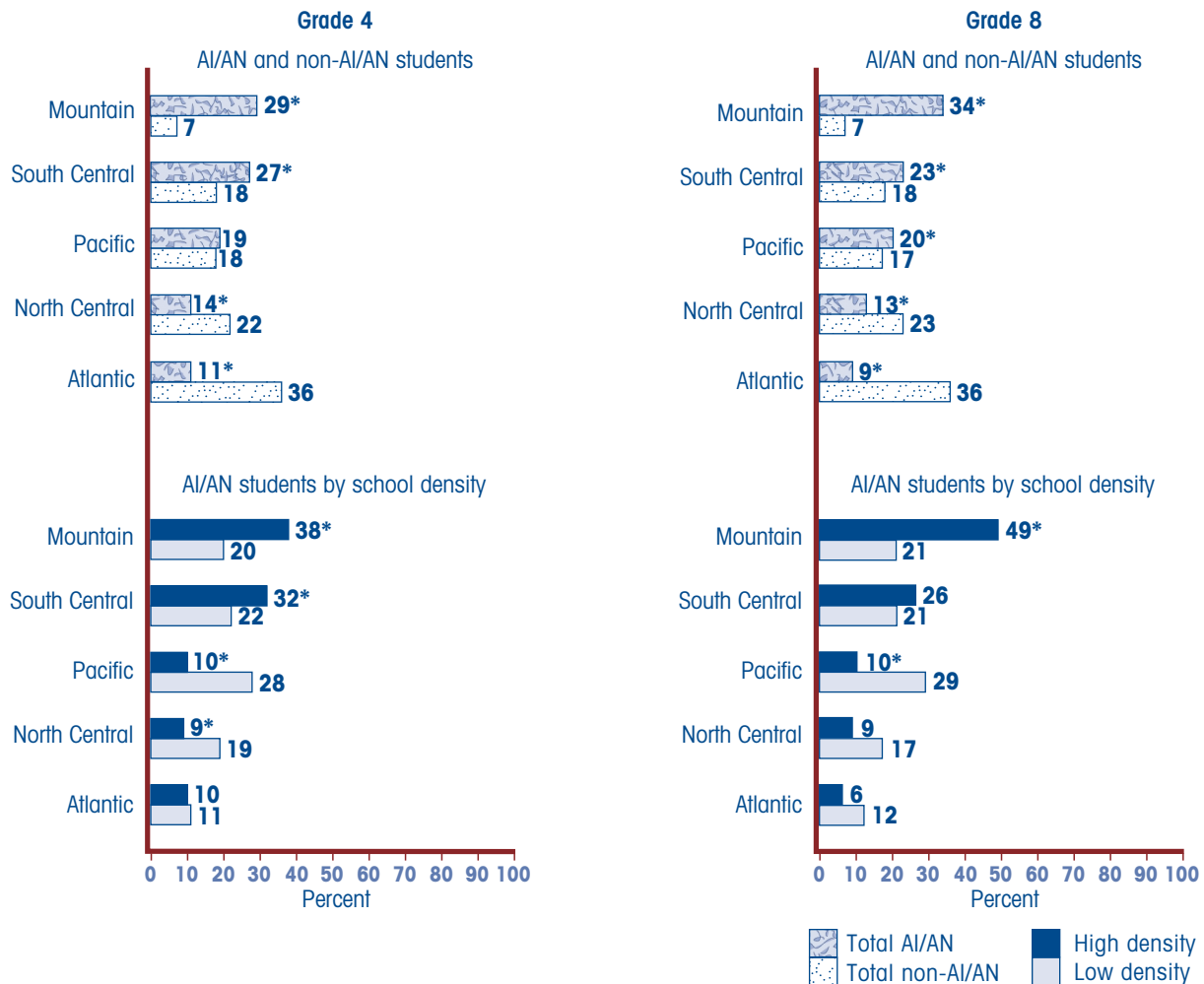
NOTE: Regions referenced in the figure are based on Census divisions or aggregations of Census divisions. They were defined by NCES exclusively for the 2005 National Indian Education Study.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

At both grades 4 and 8, more than one-half of AI/AN students attend schools in two of the regions—the Mountain and South Central regions (figure 2-2). In comparison, over one-half of non-AI/AN students attend schools in the Atlantic and North Central regions. Smaller percentages of non-AI/AN students attend schools in the regions where AI/AN students

are most concentrated. When one considers AI/AN students separately in high density and low density schools, the concentration in the Mountain and South Central regions is even more apparent. Seventy percent of grade 4 AI/AN students and 75 percent of grade 8 AI/AN students at high density schools are concentrated in these two regions.

Figure 2-2. Percentage of grade 4 and grade 8 students, by American Indian/Alaska Native (AI/AN) status, region, and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

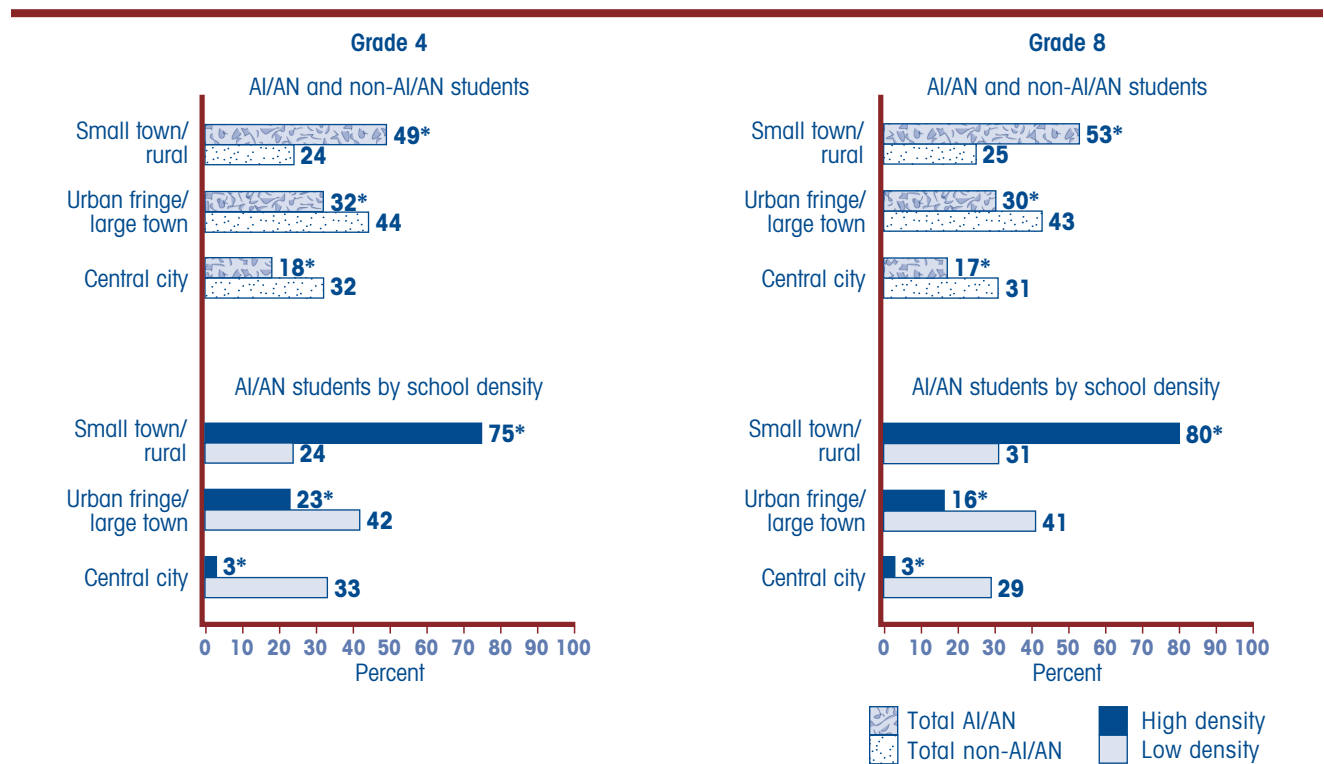
Location by community type

Across the country, about one-half of all AI/AN students attend schools located in small towns or rural communities (figure 2-3). At grade 4, for example, 49 percent of AI/AN students attend schools in small towns or rural communities, while 32 percent are at schools in urban fringe communities or large towns, and 18 percent are at schools in central cities. Likewise at eighth grade, 53 percent of AI/AN students attend schools in small towns or rural communities, 30 percent are at schools in large towns or urban fringe communities, and 17 percent attend central city schools. In contrast, non-AI/AN students nationwide are more concentrated at schools in urban

fringe communities/large towns and central cities; about three-quarters of non-AI/AN students at each grade level attend schools in such localities.

Figure 2-3 also shows that, at both grades 4 and 8, more AI/AN students attending high density schools are located in small towns or rural areas, whereas more AI/AN students attending low density schools are located in urban fringe/large towns and central cities. In fact, among AI/AN students at high density schools, 75 percent of grade 4 students and 80 percent of grade 8 students attend schools in small towns or rural communities.

Figure 2-3. Percentage of grade 4 and grade 8 students, by American Indian/Alaska Native (AI/AN) status, community type, and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

What are the socioeconomic statuses and family resources of AI/AN students?

The socioeconomic status of AI/AN students was estimated on the basis of eligibility for free or reduced-price lunch under the National School Lunch Program (NSLP) and the highest level of education attained by either parent. Two indicators of family resources related to education were also explored, namely, the availability of literacy materials and access to computers in the students' homes.

Eligibility for free or reduced-price school lunch

The 2003 American Community Survey found the percentage of the AI/AN population living below the poverty line to be 25.7 percent, which is more than double the national figure of 12.4 percent for the population as a whole (U.S. Census Bureau 2003). While the National Indian Education Study (NIES) does not provide precisely comparable information, it does indicate that the majority of AI/AN students comes from families with low-income levels.

Income status for students in both NIES and NAEP was estimated based on school records of eligibility for free or reduced-price school lunch under the NSLP.

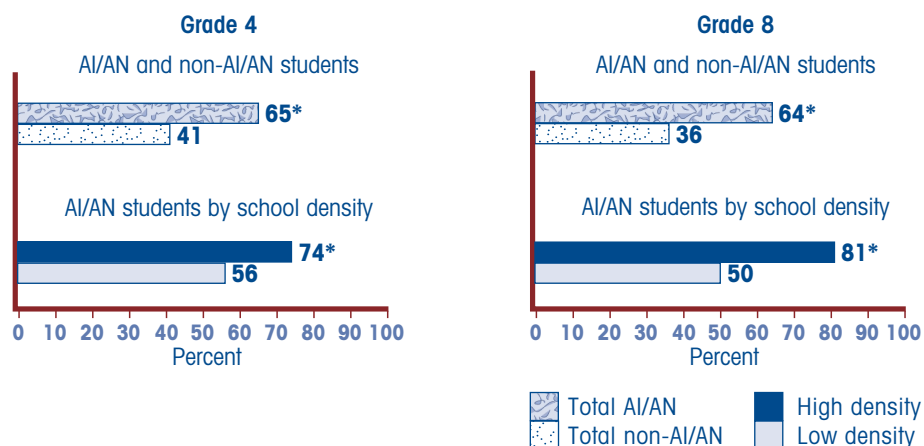
Children are eligible for free meals if their families have incomes at or below 130 percent of the poverty level. Those with family incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals (USDA 2005). See the Technical Notes for more discussion of NSLP eligibility.

At both grades 4 and 8, about 65 percent of AI/AN students are eligible for free or reduced-price lunches.

Figure 2-4 shows that, at both grade levels, about 65 percent of AI/AN students qualify for the school lunch program. This percentage is significantly greater among AI/AN students than in the non-AI/AN student population, where 41 percent of fourth-grade students and 36 percent of eighth-grade students qualify.

Among AI/AN students, there are differences between percentages of eligible students at high density and low density schools. At fourth grade, 74 percent of students from high density schools are eligible, compared to 56 percent from low density schools. At eighth grade, 81 percent of AI/AN students at high density schools are eligible for free or reduced-price lunch compared to 50 percent at low density schools.

Figure 2-4. Percentage of grade 4 and grade 8 students identified as eligible for free or reduced-price school lunch, by American Indian/Alaska Native (AI/AN) status and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

Parent education

Parent education is an indicator of socioeconomic status that has been shown to be an important predictor of student achievement (Hampden-Thompson and Johnston, 2006). The level of parent education reported for this study is based on the responses grade 8 students gave to two questions concerning the highest level of education attained by their mother and the highest level of education attained by their father. Grade 4 students were not surveyed regarding parents' education because cognitive interview studies carried out by the National Assessment of Educational Progress have shown that grade 4 students do not reliably know this information (Levine, Huberman, and Buckner, 2002).

Figure 2-5 shows the highest education level attained by either the student's mother or father. Overall, 75 percent of AI/AN students reported that one or both of their parents had at least a high school diploma. This figure included 29 percent who reported that one or both of their parents had graduated from college, 25 percent who reported that one

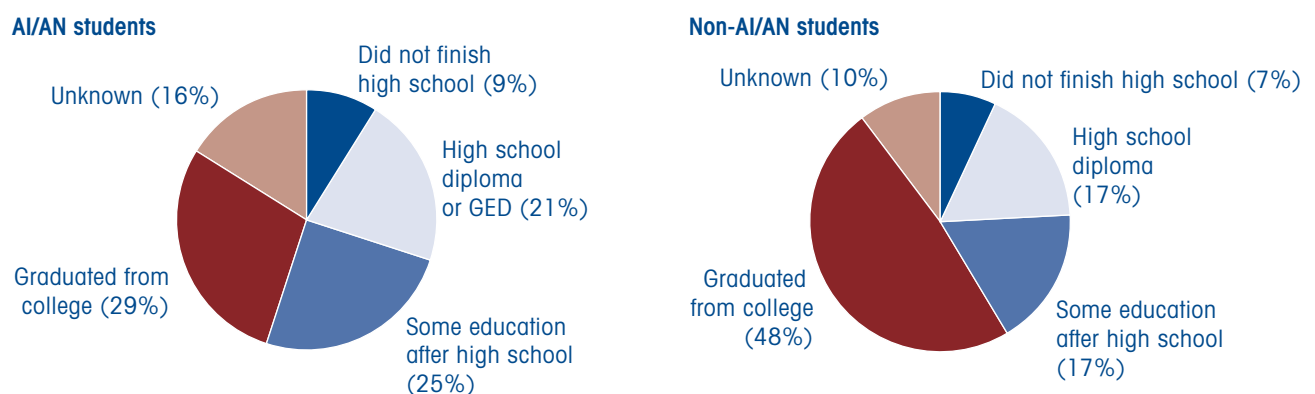
or both of their parents had some education after high school, and 21 percent who reported that one or both of their parents had a high school diploma or General Education Development (GED) certificate. Sixteen percent indicated that they did not know their parents' levels of education.

Fifty-four percent of AI/AN students at grade 8 reported that at least one of their parents had some education beyond high school or had graduated from college.

The corresponding percentages for non-AI/AN students were 83 percent for one or both parents having at least a high school diploma, 48 percent for one or both parents having graduated from college, and 10 percent for "unknown" status. The questions on parent education answered by AI/AN students and non-AI/AN students were not strictly comparable, however, because the questions for non-AI/AN students did not include the alternative of a GED certificate among the response options.

There was no significant difference in the levels of parent education reported by AI/AN students attending high density and low density schools (table A-5).

Figure 2-5. Percentage of grade 8 students, by American Indian/Alaska Native (AI/AN) status and highest level of education reported for either parent: 2005



NOTE: Detail may not sum to totals because of rounding. Statistical comparisons between AI/AN students and non-AI/AN students are not appropriate because the survey questions posed to these two populations were slightly different. The AI/AN students responded to questions in which GED was listed along with high school diploma; the non-AI/AN students responded to questions in which GED was not mentioned.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

Literacy materials in the home

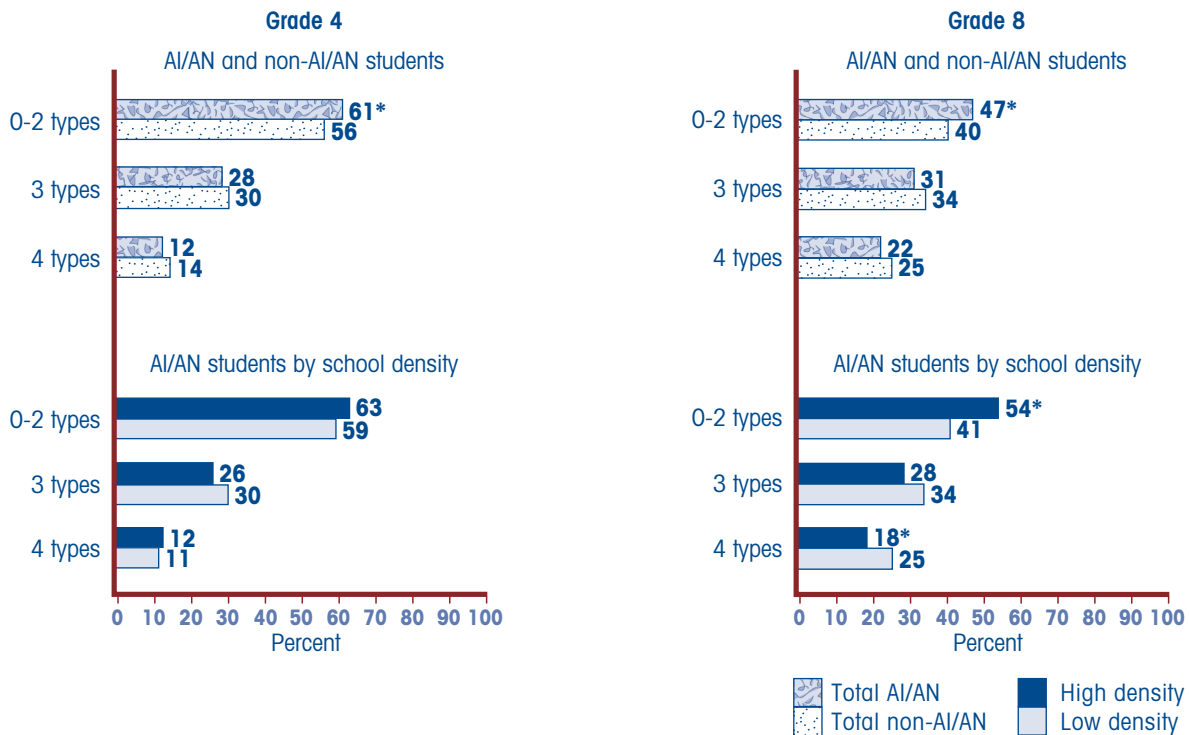
Literacy materials available in the home constitute a family resource that has been reported to be associated with students' achievement scores (Shaughnessy, Nelson, and Norris, 1998). The measure reported here is based on questions about the availability of four types of literacy materials in the home: newspapers, magazines, encyclopedias, and more than 25 books.

In fourth grade, 61 percent of AI/AN students reported having, at most, two of these types of literacy materials available in the home (figure 2-6). A significantly smaller percentage of non-AI/AN students (56 percent) reported this amount of availability. At the other end of the scale, 12 percent of AI/AN students and 14 percent of non-AI/AN students reported having all four types of literacy materials. The percentages were not significantly different from one another.

In eighth grade, 47 percent of AI/AN students reported having 0-2 types of literacy materials in the home, while 40 percent of non-AI/AN students reported this amount of availability. Again, the percentages of AI/AN and non-AI/AN students who reported just 0-2 types of literacy materials were significantly different. On the other end of the scale, 22 percent of AI/AN students and 25 percent of non-AI/AN students reported having all four types of literacy materials; these percentages were not significantly different.

Responses of AI/AN students in high density and low density schools also differed at this grade level—more AI/AN students attending high density schools reported that two or fewer types of literacy materials were available in their homes, while more AI/AN students in low density schools reported having all four types of literacy materials.

Figure 2-6. Percentage of grade 4 and grade 8 students, by American Indian/Alaska Native (AI/AN) status, the number of different types of literacy materials in their homes, and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding. Types of literacy materials include newspapers, magazines, encyclopedias, and more than 25 books.

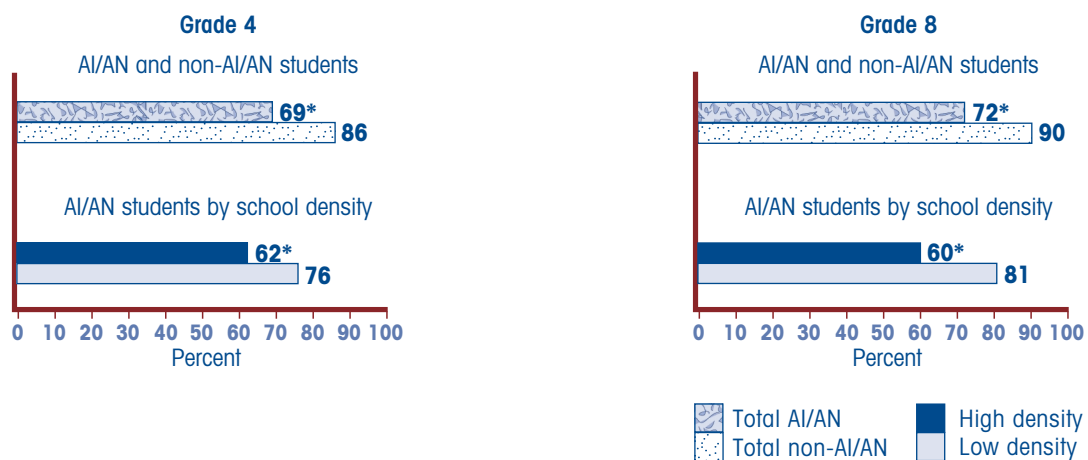
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

Computers in the home

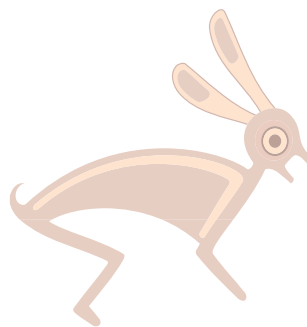
Another family resource that can be used for educational purposes is a computer. Figure 2-7 shows that 69 percent of grade 4 AI/AN students reported having a computer at home that they use. On the other hand, 86 percent of their non-AI/AN peers across the nation reported having computers in the home. Similar differences were seen at eighth grade. Nationwide, 72 percent of grade 4 AI/AN students reported having access to computers at home compared to 90 percent

of their non-AI/AN peers. Furthermore, AI/AN students at high density schools typically have less access to a computer at home. At high density schools, 62 percent of fourth-graders and 60 percent of eighth-graders reported having home computers. At low density schools, availability of home computers was reported by 76 percent of grade 4 students and 81 percent of grade 8 students.

Figure 2-7. Percentage of grade 4 and grade 8 students who reported having a computer at home that they use, by American Indian/Alaska Native (AI/AN) status and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.
 NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.



How many AI/AN students are English language learners?

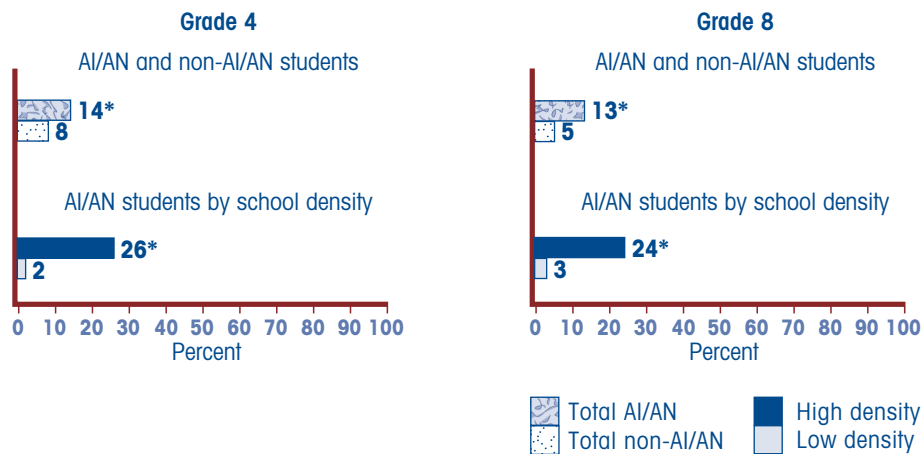
Nationally, school records collected at the time of the survey indicate that 14 percent of grade 4 and 13 percent of grade 8 AI/AN students were classified as English language learners (ELL).

Figure 2-8 shows that identification rates for non-AI/AN students were lower than for AI/AN students; 8 percent of non-AI/AN students at grade 4 and 5 percent at grade 8 were classified as ELL.

About 25 percent of AI/AN students at high density schools are English language learners, compared to less than 5 percent at low density schools.

Within the AI/AN population, ELL classification rates varied between high density and low density schools. At fourth grade, 26 percent of the AI/AN students at high density schools were ELL students compared to 2 percent at low density schools. At eighth grade, 24 percent of the AI/AN student population was classified as ELL in high density schools compared to 3 percent in low density schools.

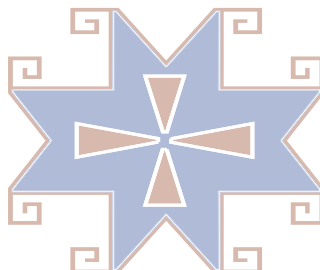
Figure 2-8. Percentage of grade 4 and grade 8 students classified as English language learners, by American Indian/Alaska Native (AI/AN) status and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.



How many AI/AN students are classified as students with disabilities?

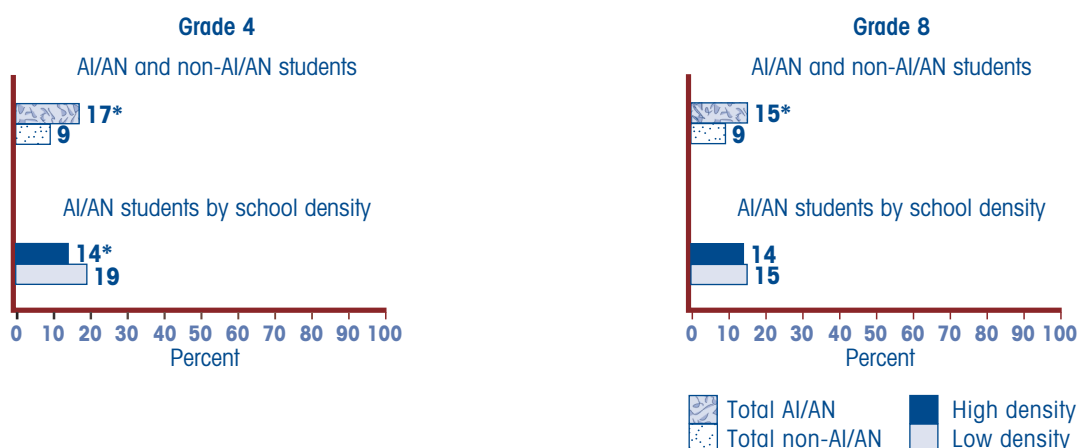
Information on students' disability status was also collected from school records at the time of the survey. Students were classified as having a disability if they had either an Individualized Education Plan or a Section 504 Plan, or if either type of plan was in the process of being developed.

Similar to the findings of ELL classification, a higher percentage of AI/AN students than non-AI/AN students in grades 4 and 8 were identified as students with disabilities (SD). Figure 2-9 indicates that 17 percent of AI/AN students at grade 4 were identified on

school records as SD, while 9 percent of non-AI/AN students were so identified. At eighth grade, 15 percent of AI/AN students and 9 percent of non-AI/AN were identified as SD.

Differences between high density and low density schools were observed at grade 4 only, where a lower percentage of AI/AN students at high density schools were found to have an SD classification. Fourteen percent of grade 4 AI/AN students at high density schools were identified as SD compared to 19 percent at low density schools.

Figure 2-9. Percentage of grade 4 and grade 8 students classified as students with disabilities, by American Indian/Alaska Native (AI/AN) status and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

How did the AI/AN students in NIES describe their own race/ethnicity?

All students selected for the NIES study were identified as AI/AN on school records collected at the time of the survey. In contrast to school records, the race/ethnicity data reported here is based on the students' responses.

Students answered two questions about race and ethnicity: "Are you Hispanic or Latino?" and "Which of the following [race categories] best describes you? Fill in one or more ovals." The race categories were

White, Black or African American, Asian, American Indian or Alaska Native, and Hawaiian or other Pacific Islander. Thus, students could identify with a single race/ethnicity or with multiple races/ethnicities. Table 2-1 shows the percentage of AI/AN students who self-identified as AI/AN only, those who self-identified as AI/AN in combination with some other race or ethnicity, and those who did not include AI/AN in their self-identification.

The category “AI/AN in combination” presented in the table includes those students who identified themselves as Hispanic and AI/AN, as well as those who selected AI/AN plus a second race/ethnicity.

Nationally, 44 percent of AI/AN students at grade 4 and 51 percent at grade 8 identified themselves as AI/AN only, while another 42 percent at grade 4 and 35 percent at grade 8 identified themselves as AI/AN in combination. The remaining 14 percent at each grade level did not self-identify as AI/AN.

At both grade levels, there was a relationship between school density and the manner in which students self-identified. At fourth grade, 57 percent of students in high density schools identified themselves as AI/AN only compared to 31 percent in

low density schools. At eighth grade, 64 percent of students in high density schools and 41 percent in low density schools reported themselves to be AI/AN only.

To what extent, and in what ways, are AI/AN students exposed to traditional culture and language?

This section presents results for students’ self-reported exposure to AI/AN culture, including their degree of knowledge about their tribe or village, their participation in tribal or village activities, and the use of traditional language in their homes. Also reported are the students’ perceptions of their schools as a resource for learning about AI/AN culture.

Students’ reported knowledge about tribe or village

As part of the student survey, grade 4 students answered a question that asked how much they knew about their tribe or village. Grade 8 students rated themselves in two areas: knowledge of current events and issues important to their tribe or village, and knowledge of the traditions of their tribe or village.

Table 2-1. Percentage of grade 4 and grade 8 American Indian/Alaska Native (AI/AN) students, by school density and self-identification as AI/AN: 2005

Self-identification as AI/AN	Total	School density	
		High	Low
Grade 4			
Identifies as AI/AN only	44	57*	31
Identifies as AI/AN in combination	42	31*	52
Does not self-identify as AI/AN	14	12*	17
Grade 8			
Identifies as AI/AN only	51	64*	41
Identifies as AI/AN in combination	35	26*	42
Does not self-identify as AI/AN	14	9*	18

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

NOTE: All students were classified as AI/AN by school records. The category “Identifies as AI/AN in combination” includes students who identified themselves as Hispanic and AI/AN as well as students who selected AI/AN plus a second race. School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

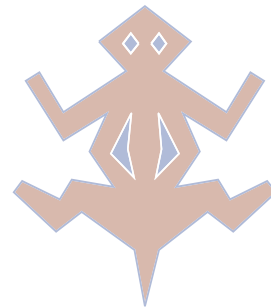


Table 2-2 shows that 21 percent of grade 4 AI/AN students reported knowing “a lot” about their tribe or village, while an additional 41 percent reported having “some” knowledge on this topic. Thirty-eight percent said they did “not [know] very much.”

A higher percentage of grade 4 students attending high density schools reported that they knew “a lot,” while a higher percentage of grade 4 students attending low density schools reported that they did not know very much.

Table 2-3 shows that, at eighth grade, 41 percent of the students rated their knowledge of current events and issues important to their tribe or village as “good” to “excellent.” Forty-five percent gave “good” to “excellent” ratings to their knowledge of the traditions of their tribe or village. A higher percentage of students from high density schools rated their knowledge in both areas as “good” (“good” or “excellent” in the case of traditions), while more students from low density schools rated their knowledge of these topics as “poor.”

Table 2-2. Percentage of grade 4 American Indian/Alaska Native (AI/AN) students, by school density and self-reported extent of knowledge about their tribe or village: 2005

Knowledge about tribe or village	Total	School density	
		High	Low
Not very much	38	35*	42
Some	41	40	42
A lot	21	26*	16

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

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Table 2-3. Percentage of grade 8 American Indian/Alaska Native (AI/AN) students, by school density and self-reported extent of knowledge about aspects of their tribe or village: 2005

Knowledge about	Total	School density	
		High	Low
Current events and issues important to tribe or village			
Poor	27	16*	36
Fair	32	33	31
Good	34	42*	28
Excellent	7	9	6
Traditions of tribe or village			
Poor	27	17*	36
Fair	28	28	28
Good	32	40*	26
Excellent	13	16*	10

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

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Participation in tribal/village activities

Information about participation in tribal or village activities was derived from responses to questions that asked students how often they went to ceremonies and gatherings given by members of their tribe or village.

Approximately one-half of all AI/AN students at both grade levels reported attending tribal or village ceremonies and gatherings once a year or more (table 2-4). A higher percentage of students attending high density schools reported participation several times a year—33 percent at fourth grade and 35 percent at eighth grade—while a higher percentage of students attending low density schools reported that they never participated—42 percent at fourth grade and 46 percent at eighth grade.

Sixty-five percent of grade 8 students also reported some participation in gatherings of people from many tribes or villages, while 42 percent reported having attended camps or lodges, and 43 percent reported engaging in other community activities that teach about the traditions of their tribes or villages (table A-14).

Use of traditional language

Table 2-5 shows the frequency of traditional language use within families, based on a question at both grade levels that asked, “How often do people in your family talk to each other in your traditional language (the language of your tribe or village)?” Twenty-eight percent of grade 4 students and 23 percent of grade 8 students reported that their families talk to each other in the language of their tribe or village about one-half the time or more often. However, 41 percent of fourth grade and 51 percent of eighth grade students reported use of traditional language within the family as “never.”

At both grade levels, a larger percentage of students from high density schools reported that their families talk to each other in the language of their tribe or village about one-half the time or more often, whereas a larger percentage of students from low density schools reported that their families never talk to each other in their traditional languages.

Table 2-4. Percentage of grade 4 and grade 8 American Indian/Alaska Native (AI/AN) students, by school density and attendance at ceremonies and gatherings given by members of their tribe or village: 2005

Attendance at ceremonies and gatherings	Total	School density	
		High	Low
Grade 4			
Never	36	31*	42
Less than once a year	12	13	11
At least once a year	25	23	26
Several times a year	27	33*	21
Grade 8			
Never	36	25*	46
Less than once a year	17	16	17
At least once a year	23	24	22
Several times a year	24	35*	15

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

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Table 2-5. Percentage of grade 4 and grade 8 American Indian/Alaska Native (AI/AN) students, by school density and frequency with which students' families communicate in their traditional languages: 2005

Traditional language use within family	Total	School density	
		High	Low
Grade 4			
Never	41	29*	54
Once in a while	31	29	33
About half of the time	12	16*	8
All or most of the time	16	26*	6
Grade 8			
Never	51	30*	68
Once in a while	26	28	25
About half of the time	10	18*	4
All or most of the time	12	24*	3

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

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

School as a resource for learning about AI/AN culture

This section presents findings on students' perceptions of school as a cultural resource. Students at grade 4 answered three separate questions about the availability of culturally relevant activities at their schools. Students at grade 8 answered one five-part question addressing the same theme.

Table 2-6 shows that 45 percent of grade 4 AI/AN students reported going on field trips or attending special events and checking out books or videos from the school library to learn about American Indians or Alaska Natives. Twenty-nine percent reported that elders or other people from their tribe or village came to school to teach about culture and traditions. A higher percentage of students from high density schools reported such visits than students from low density schools.

As shown in table 2-7, one-half of AI/AN students in grade 8 responded affirmatively that their schools had provided books, videos, or computer software with information about AI/AN history and traditions, while about one-quarter reported that their schools had provided performances of traditional AI/AN music and dance. Twenty-two percent reported class visits by elders or other people from their tribe or village to share their history or oral traditions; 21 percent reported craft demonstrations by members of their tribe or village; and 17 percent reported that their school had sponsored field trips to museums, traditional villages, or other places that tell about AI/AN history or traditions.

Based on these student reports, both high density and low density schools appear to provide primarily books, videos, or computer software to support learning about AI/AN culture. In addition, 40 percent of students at high density schools had access to music and dance performances through their schools, 35 percent had access to class visits and craft demonstrations, and 27 percent had access to field trips. At low density schools, the corresponding percentages were all under 20 percent.

Table 2-6. Percentage of grade 4 American Indian/Alaska Native (AI/AN) students, by school density and school-based opportunities to learn about their AI/AN culture in the past year: 2005

Opportunities to learn about AI/AN culture	Total	School density	
		High	Low
Class went on field trips or attended special events to learn about American Indians or Alaska Natives	45	47	44
Checked out books or videos about American Indians or Alaska Natives from the school library	45	43	48
Elders or other people from tribe or village came to school to teach about culture and traditions	29	39*	19

* Significantly different ($p < .05$) from students attending low density schools.
 NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Table 2-7. Percentage of grade 8 American Indian/Alaska Native (AI/AN) students, by school density and school-based opportunities to learn about their AI/AN culture in the past year: 2005

Opportunities to learn about AI/AN culture	Total	School density	
		High	Low
Books, videos, or computer software with information about American Indian or Alaska Native history and traditions	50	60*	42
Performances of traditional American Indian or Alaska Native music and dance	26	40*	14
Class visits by elders or other people from tribe or village to share history and oral traditions	22	35*	11
Craft demonstrations by members of tribe or village	21	35*	10
Field trips to museums, traditional villages, or other places that tell about American Indian or Alaska Native history or traditions	17	27*	9

* Significantly different ($p < .05$) from students attending low density schools.
 NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent.
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

What are AI/AN students' perceptions regarding school and learning?

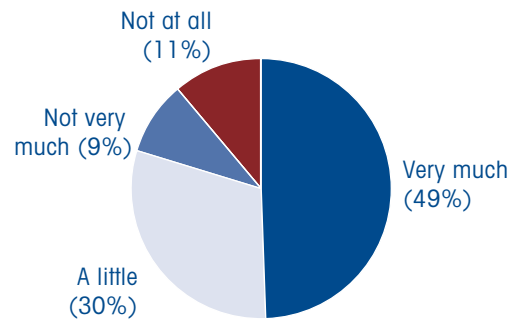
NAEP estimates indicate that, while AI/AN student achievement has improved over time, it continues to fall below the national average (Rampey, Lutkus, and Weiner, 2006). The NIES student surveys explored students' general perceptions of school and their goals in school. The surveys also collected information about the extent to which students discussed schoolwork with their families, the extent to which they received assistance with their schoolwork at home, and the frequency of school absences. In addition, students at grade 8 answered questions about their participation in academic counseling and extracurricular activities.

Perceptions of school

Students' perceptions of school were explored at grade 4 with a question that asked "How much do you like school?" Figure 2-10 shows that more than three-fourths of grade 4 students reported that they like school at least "a little," and about one-half of the students reported that they like school "very much." Fewer students at high density schools than at low density schools selected the response category indicating that they liked school "a little" (table A-18).

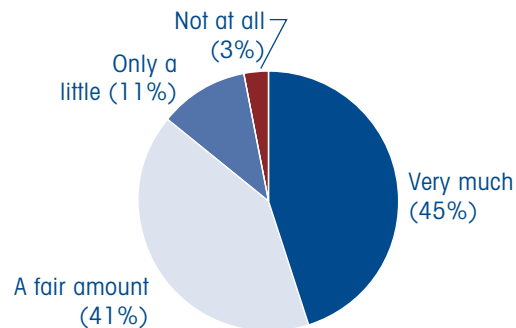
At grade 8, students were asked to indicate how much they believed that what they were learning in school would prepare them for the lives they want to lead. As figure 2-11 shows, 45 percent of grade 8 students reported that they believe what they are learning in school is preparing them "very much," while an additional 41 percent reported that what they are learning is preparing them "a fair amount." There were no significant differences between responses of students from high density and low density schools (table A-19).

Figure 2-10. Percentage of grade 4 American Indian/Alaska Native students, by how much the students like school: 2005



NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Figure 2-11. Percentage of grade 8 American Indian/Alaska Native students, by how much the students believe that what they are learning in school will prepare them for the life they want to lead: 2005



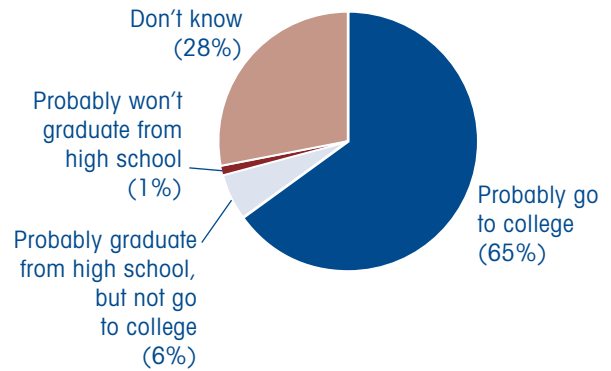
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Educational goals

Students in grades 4 and 8 were probed about their educational goals with the question “What is your goal in school?” Response options ranged from “probably won’t graduate from high school” to “probably go to college,” with grade 8 students offered one additional response option regarding job training after high school. The wording of the response options for each grade level is shown in figures 2-12 and 2-13.

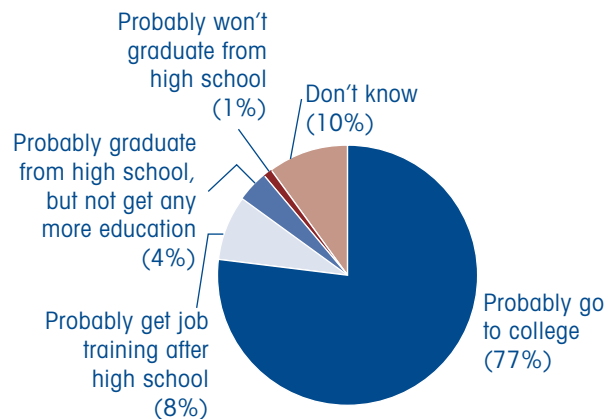
At both grade levels, “probably go to college” was the most frequently reported goal (65 percent at grade 4 and 77 percent at grade 8), while only 1 percent of students acknowledged a goal of “probably won’t graduate from high school.” Some students at each grade (28 percent at grade 4 and 10 percent at grade 8) reported that they did not know their goals. Responses from students at high density and low density schools were not significantly different (table A-20).

Figure 2-12. Percentage of grade 4 American Indian/Alaska Native students, by their goals in school: 2005



NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Figure 2-13. Percentage of grade 8 American Indian/Alaska Native students, by their goals in school: 2005



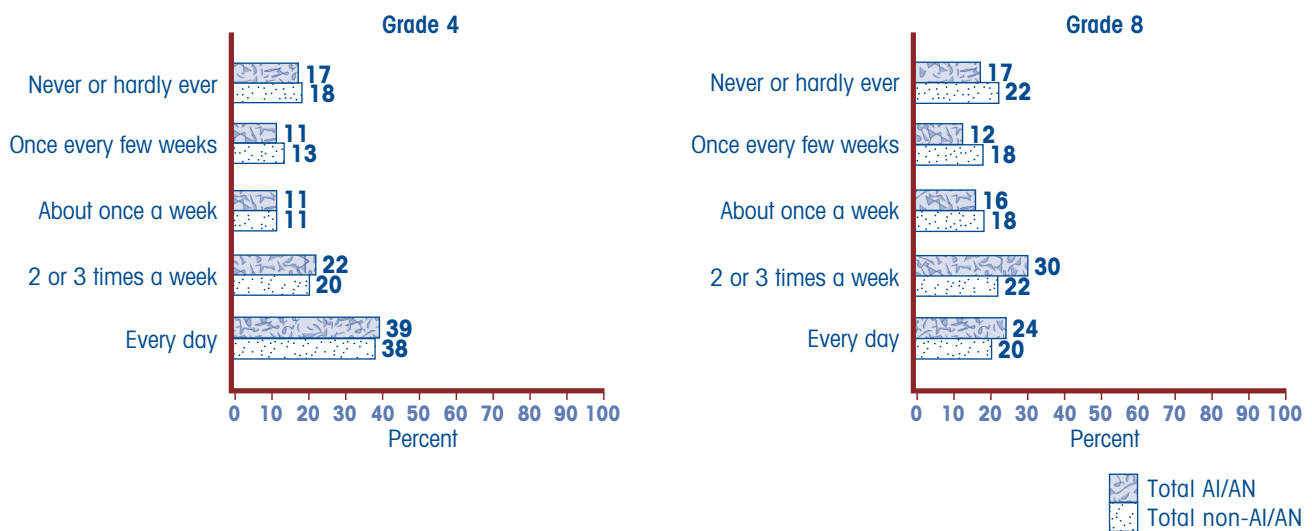
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Family support for education

One measure of perceived family support for education was a question that asked “How often do you talk about things you have studied in school with someone in your family?” Both AI/AN and non-AI/AN students responded to a question on this topic, but the questions were not strictly comparable because the ordering of the response options differed across the two surveys.

Overall, 61 percent of AI/AN students in grade 4 and 54 percent in grade 8 reported talking with their families about things they have studied in school at least 2 or 3 times per week (figure 2-14). The corresponding percentages among non-AI/AN students were 58 percent at grade 4 and 42 percent at grade 8. There were no significant differences between AI/AN students at high density and low density schools at either grade (table A-21).

Figure 2-14. Percentage of grade 4 and grade 8 students, by American Indian/Alaska Native (AI/AN) status and how often they talk about things they have studied in school with someone in their families: 2005



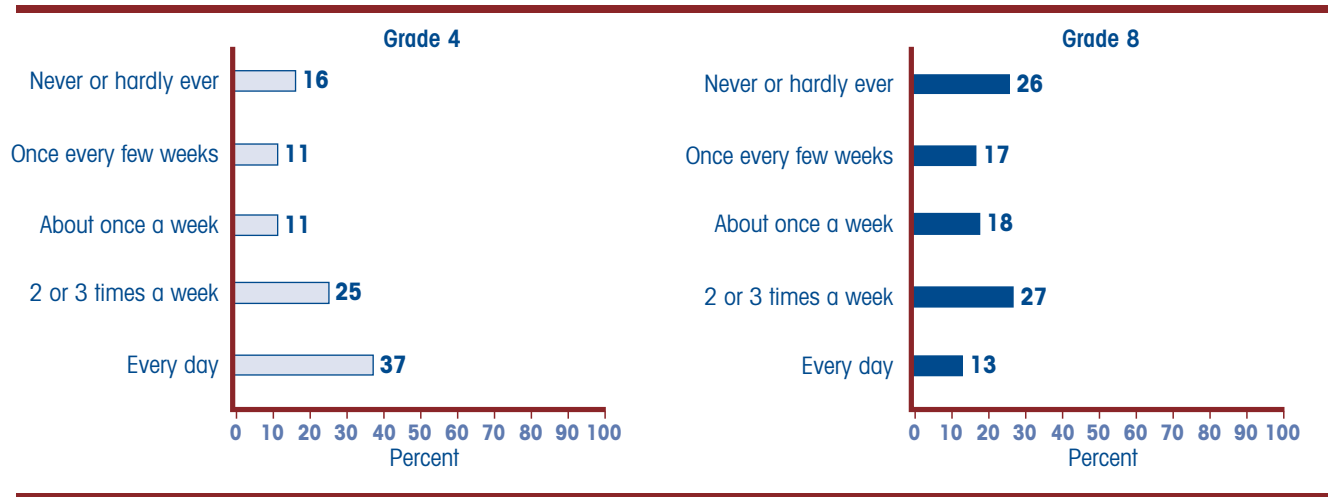
NOTE: Detail may not sum to totals because of rounding. Statistical comparisons between AI/AN students and non-AI/AN students are not appropriate because the survey questions posed to these two populations were slightly different. The AI/AN students responded to a question in which the response options were ordered from “Every day” to “Never or hardly ever.” The non-AI/AN students responded to a question in which the response options were ordered from “Never or hardly ever” to “Every day.”

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

A second measure of family support, which was only available for AI/AN students, was a question that asked “How often does someone in your family help you with your schoolwork?” Figure 2-15 shows that 37 percent of grade 4 students and 13 percent of grade 8 students reported that someone in their families

helped them with their schoolwork “every day,” while 16 percent of grade 4 students and 26 percent of grade 8 students reported that they “never or hardly ever” received such help. There were no significant differences in responses of students from high density and low density schools (table A-22).

Figure 2-15. Percentage of grade 4 and grade 8 American Indian/Alaska Native students, by how often someone in their families helps them with schoolwork: 2005



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.



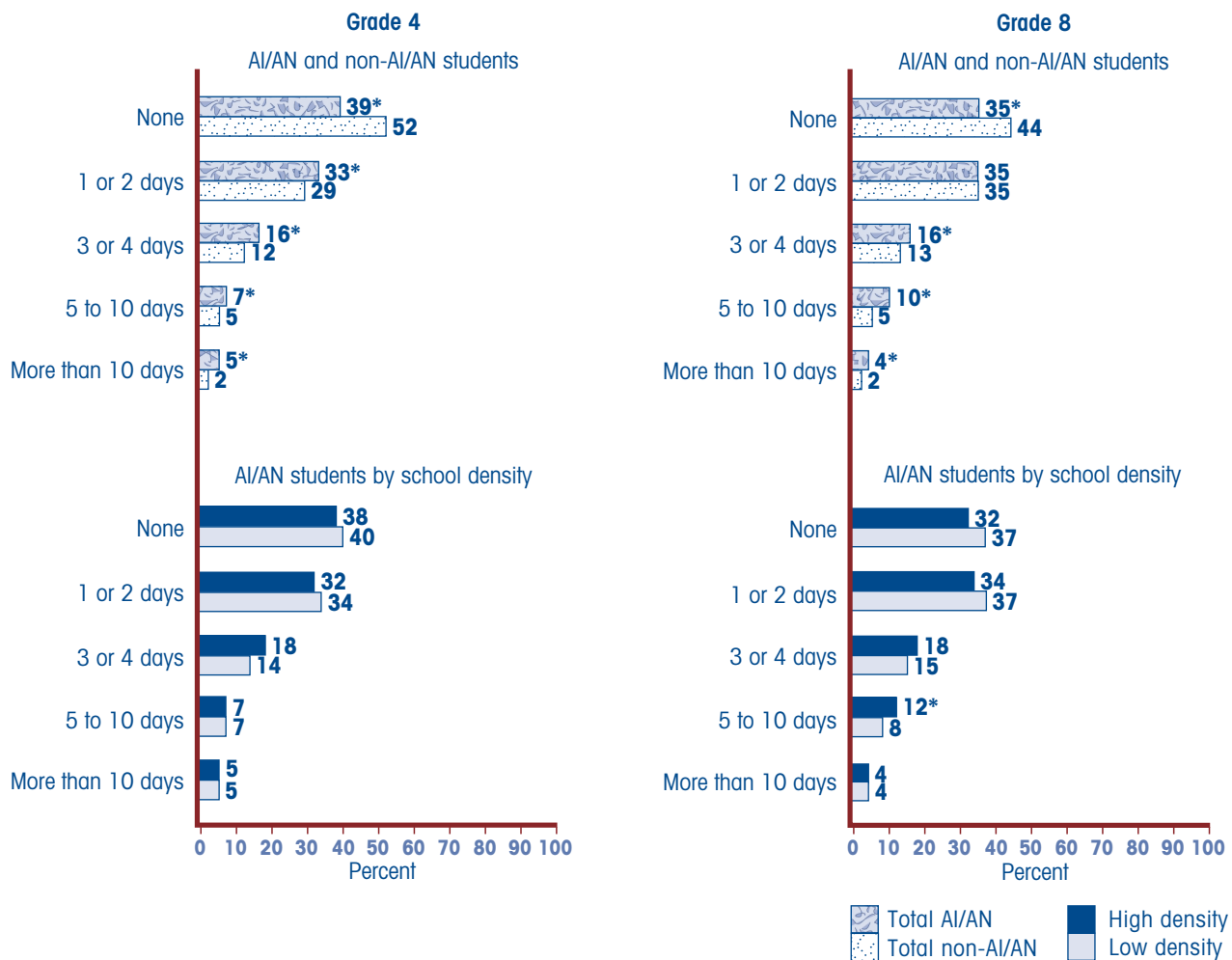
School absences

The student survey included the question “How many days were you absent from school in the last month?” Figure 2-16 shows that 39 percent of grade 4 AI/AN students and 35 percent of grade 8 AI/AN students reported no absences in the last month. Thirty-three percent of AI/AN students at grade 4 and 35 percent at grade 8 reported being absent 1 or 2 days. At the other end of the spectrum, 5 percent of grade 4 students and 4 percent of grade 8 AI/AN students reported missing more than 10 days of school in the last month. By comparison, a higher percentage of

non-AI/AN students at each grade level reported no absences in the last month, and a lower percentage at each grade level reported being absent 3 or 4 days, 5 to 10 days, or more than 10 days in the last month.

There were few differences in self-reported student absenteeism between high density and low density schools. However, at grade 8, absences of 5 to 10 days in the last month were reported more often by AI/AN students from high density schools than by their peers in low density schools.

Figure 2-16. Percentage of grade 4 and grade 8 students, by American Indian/Alaska Native (AI/AN) status, the number of days they were absent from school in the last month, and school density: 2005



* Indicates a statistically significant comparison where $p < .05$. An * on the total AI/AN percentage indicates a comparison with total non-AI/AN. An * on the high density percentage indicates a comparison with low density.

NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent. Detail may not sum to totals because of rounding.

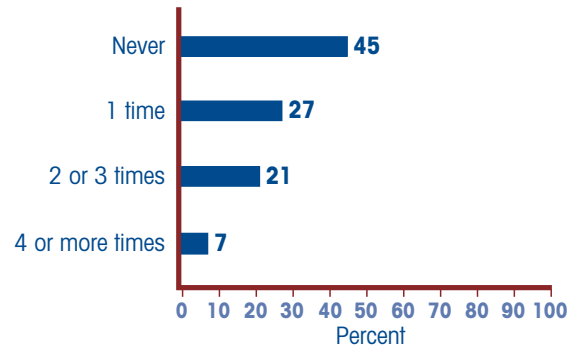
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study; and National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

Academic counseling and extracurricular activities

Grade 8 students were asked how many times during the current school year they had talked to a teacher or school counselor about what they hoped to get out of school or what classes they should take. Figure 2-17 shows that 45 percent of all AI/AN students reported never talking to a teacher or counselor about these topics. There were no significant differences between responses of students from high density and low density schools (table A-24).

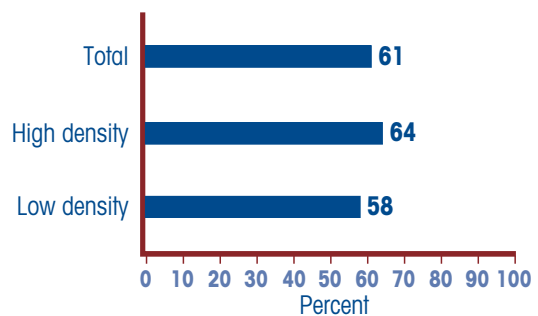
Extracurricular activities were represented by a question that asked grade 8 students if, during the current school year, they had played on a team or belonged to a club at school. As figure 2-18 shows, 61 percent of all AI/AN students responded affirmatively. No significant differences were observed between students from high density and low density schools.

Figure 2-17. Percentage of grade 8 American Indian/Alaska Native students, by the number of times during the school year they talked to a teacher or a school counselor about what they hope to get out of school or what classes they should take: 2005



NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Figure 2-18. Percentage of grade 8 American Indian/Alaska Native (AI/AN) students who reported playing on a team or belonging to a club at school during the school year, by school density: 2005



NOTE: School density indicates the proportion of AI/AN students enrolled. High density schools have 25 percent or more AI/AN students. Low density schools have less than 25 percent.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2005 National Indian Education Study.

Summary

Fifty percent of all AI/AN students in grade 4 and 45 percent in grade 8 attend schools in which the AI/AN student population is 25 percent or more. AI/AN students at these high density schools are particularly concentrated in small towns and rural areas, and in the Mountain and South Central regions of the United States (based on Census divisions).

Compared to non-AI/AN students, AI/AN students are more concentrated in small towns and rural areas. Higher percentages of AI/AN students than non-AI/AN students are eligible for free or reduced-price school lunch under the National School Lunch Program, and higher percentages are classified as English language learners or students with disabilities.

Among AI/AN students, a higher percentage of students at high density schools than at low density schools indicated that their families talked to one another in their traditional language, that they themselves participated in tribal or village activities, and that they knew about the traditions of their own tribes or villages.

Forty-nine percent of all grade 4 AI/AN students reported liking school “very much,” and 45 percent of grade 8 AI/AN students reported that what they are learning in school is preparing them “very much” for the life they want to lead in the future. There were very few significant differences between the responses from students at high density and students at low density schools in how they rated their performance in school or described their engagement with school.

At grade 8, about three-quarters of all AI/AN students reported a goal of going to college. Nearly three-quarters of the AI/AN students at each grade level reported talking to their families at least once a week about things they have studied at school, and nearly three-quarters of grade 4 AI/AN students reported getting family help with schoolwork at least once a week.

