

# Where American Indian students go to school: Enrollment in seven Central Region states



What's Happening

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This brief presents descriptive information about schools in the Regional Educational Laboratory (REL) Central Region that have a high enrollment of American Indian students. The primary purpose is to inform the development of sampling strategies in future research. Specifically, the brief is intended to help educators, policymakers, and researchers plan where to conduct future field-based research on the use of language and culture to support American Indian students' academic success.

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## Why this brief?

Low academic achievement among American Indian<sup>1</sup> students is a concern nationally and in the REL Central Region. More than 70 percent of grade 12 American Indian students nationwide have not demonstrated proficiency in math or reading (U.S. Department of Education, 2014). In South Dakota, where American Indian students account for 14 percent of the student population, their proficiency rate is less than 30 percent in math and reading in grades 4 and 8 (U.S. Department of Education, 2013a, 2013b). Members of REL Central's Native American Education Research Alliance seek to better understand factors related to American Indian students' academic success (defined as demonstrated proficiency in one or more academic areas, such as reading, writing, communication arts, visual arts, math, and science). Specifically, alliance members seek to better understand relationships between the use of Native<sup>2</sup> culture and language in curricular and extracurricular activities and student academic success.

Research suggests that American Indian students succeed academically when their Native culture is integrated into curricular and extracurricular activities in school. For example, research in Alaska and Hawaii indicates that students whose coursework is aligned with state content standards and integrated with Native culture advance in academic achievement statistically significantly more than students whose coursework is not aligned with state content standards and not integrated with Native culture

(Kisker et al., 2012; Tharp, 1982). In addition, American Indian students who strongly identify with their culture are more likely to attend and participate in school (Powers, 2006).

Strengthening American Indian students' understanding and use of Native language can also strengthen their academic achievement, though the mechanisms by which this occurs remain unclear (McCarty & Nicholas, 2014; McCarty & Wyman, 2009; Romero-Little & McCarty, 2006). One mechanism may involve a renewed community sense of identity and empowerment. Native language revitalization and preservation programs are “reclaiming history and breathing new life into [Native] culture and society” (U.S. Department of Health and Human Services, 2006, p. 1). Native languages give young people and their communities the means to define and express kinship relationships, traditional values, jokes, stories, and behavioral expectations in terms that are meaningful and often not available in English (Crazy Bull, 2013). For example, the Standing Rock Sioux Tribe language revitalization program has reawakened speakers of Lakota and created a multigenerational community of speakers. As the community of Lakota speakers grows, not only is there an increasing sense of social belonging, sense of place, and self-empowerment, but also school teachers are raising expectations for student academic achievement (Sunshine Carlow and Nacole Walker, personal communication, October 15, 2015).

Regional and national policymakers advocate for the use of Native language and culture to support American Indian student academic preparation for and success in postsecondary education (Archambault, 2015; Executive Office of the President, 2014). However, available research to inform the development and implementation of relevant policy and practice is limited. Few studies have been conducted on the use of Native language and culture to support American Indian students' academic success in the REL Central Region, which includes Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming. The potential for successful Native language revitalization and use of Native culture and language in the region's communities and schools is supported by concentrations of Native North American speakers living in three REL Central Region states: Colorado, South Dakota, and Wyoming (Siebens & Julian, 2011).

This brief provides information to guide planning for future research. The information can be used to locate communities and schools where future research could be conducted on the use of Native language and culture in curricular and extracurricular activities to support American Indian student academic success. This brief focuses on schools with high American Indian student enrollment because students at these schools report more frequent culture-based experiences, such as sharing American Indian traditions and cultures with community elders, than students at schools with low American Indian student enrollment (U.S. Department of Education, 2012). The information may help REL Central's Native American Education Research Alliance develop sampling choices with regard to school proximity to Native language speakers and promising approaches to using Native languages and culture to support American Indian students' academic success.

### **What the study examined**

The study team examined the concentration of Native language speakers in each REL Central Region county with schools with high American Indian student enrollment. This brief provides descriptive information about Bureau of Indian Education and high-density American Indian schools (non-Bureau of Indian Education public schools with 25 percent or more American Indian student enrollment).<sup>3</sup> Specifically, the brief addresses two questions:

- How many Bureau of Indian Education and high-density American Indian schools are in the REL Central Region, and what is their distribution across states and rural versus nonrural locales?
- To what extent are Bureau of Indian Education and high-density American Indian schools located near concentrations of Native language speakers?

All data used in the study are publicly available. School information, including student enrollment (total student count and student count by race/ethnicity), locale (rural or nonrural), and location (county and state), was obtained from the National Center for Education Statistics (U.S. Department of Education, n.d. b) and the U.S. Department of the Interior Bureau of Indian Education (2011, n.d.). The number of Native language speakers was drawn from data from the U.S. Census Bureau (U.S. Department of Commerce, 2013). County concentration of Native language speakers was computed as the ratio of Native language speakers to American Indian people.<sup>4</sup> Analyses involved cross-tabulating number of schools by state, type (Bureau of Indian Education or high-density American Indian), rural or nonrural locale, and county Native language speaker concentration.

## What the study found

The study team identified 208 schools with high American Indian student enrollment (35 Bureau of Indian Education schools and 173 high-density American Indian schools). Of the 208, 175 (84 percent) are in South Dakota and North Dakota (table 1). Each state in the region has at least one high-density American Indian school. Nebraska, Colorado, and Missouri do not have any Bureau of Indian Education schools.

### Some 83 percent of schools with high American Indian student enrollment are in rural areas

Of the 208 schools with high American Indian student enrollment, 173 (32 Bureau of Indian Education and 141 high-density American Indian), or 83 percent, are in rural locales (table 2). Each school falls into one of four categories based on school type (Bureau of Indian Education versus high-density American Indian) and locale:

- High-density American Indian schools in a rural area ( $n = 141$  in all seven states).
- Bureau of Indian Education schools in a rural area ( $n = 32$  in South Dakota, North Dakota, Wyoming, and Kansas).
- High-density American Indian schools in a city, suburb, or town ( $n = 32$  in Colorado, North Dakota, and South Dakota).
- Bureau of Indian Education schools in a suburb or town ( $n = 3$  in South Dakota and North Dakota).

**Table 1. Number of Bureau of Indian Education and high-density American Indian schools, by state, 2011/12**

State	Bureau of Indian Education	High density American Indian	Total	Share of total (%)
South Dakota	20	108	128	61.5
North Dakota	13	34	47	22.6
Nebraska	0	12	12	5.8
Wyoming	1	9	10	4.8
Colorado	0	7	7	3.4
Kansas	1	2	3	1.4
Missouri	0	1	1	0.5
Total	35	173	208	100

**Note:** Of the 8,284 schools in the REL Central Region, 7,906 were low-density American Indian (less than 25 percent American Indian students); data were missing for total student or American Indian student enrollment for 170 schools.

**Source:** School data downloaded from U.S. Department of Education (n.d. b), supplemented by data from U.S. Department of the Interior (2011; n.d.)

**Table 2. Number of Bureau of Indian Education and high-density American Indian schools, by state and locale, 2011/12**

State	School type	City	Suburb and town	Rural	Total
South Dakota	Bureau of Indian Education	0	1	19	128
	High-density American Indian	13	8	87	
North Dakota	Bureau of Indian Education	0	2	11	47
	High-density American Indian	3	3	28	
Nebraska	Bureau of Indian Education	0	0	0	12
	High-density American Indian	0	0	12	
Wyoming	Bureau of Indian Education	0	0	1	10
	High-density American Indian	0	0	9	
Colorado	Bureau of Indian Education	0	0	0	7
	High-density American Indian	0	5	2	
Kansas	Bureau of Indian Education	0	0	1	3
	High-density American Indian	0	0	2	
Missouri	Bureau of Indian Education	0	0	0	1
	High-density American Indian	0	0	1	
Total	Bureau of Indian Education	0	3	32	208
	High-density American Indian	16	16	141	

**Note:** *City* is defined as being within an urbanized area (a densely settled area that contains 50,000 or more people; U.S. Department of Commerce, 2012) and a principal city (the primary population and economic and social center of a metropolitan area). *Suburb* is defined as territory outside a principal city and within an urbanized area. *Town* is defined as a jurisdiction within an urban cluster (a densely settled area that contains at least 2,500 people but fewer than 50,000). *Rural* is defined as a territory not included in an urbanized area (U.S. Department of Education, n.d. a).

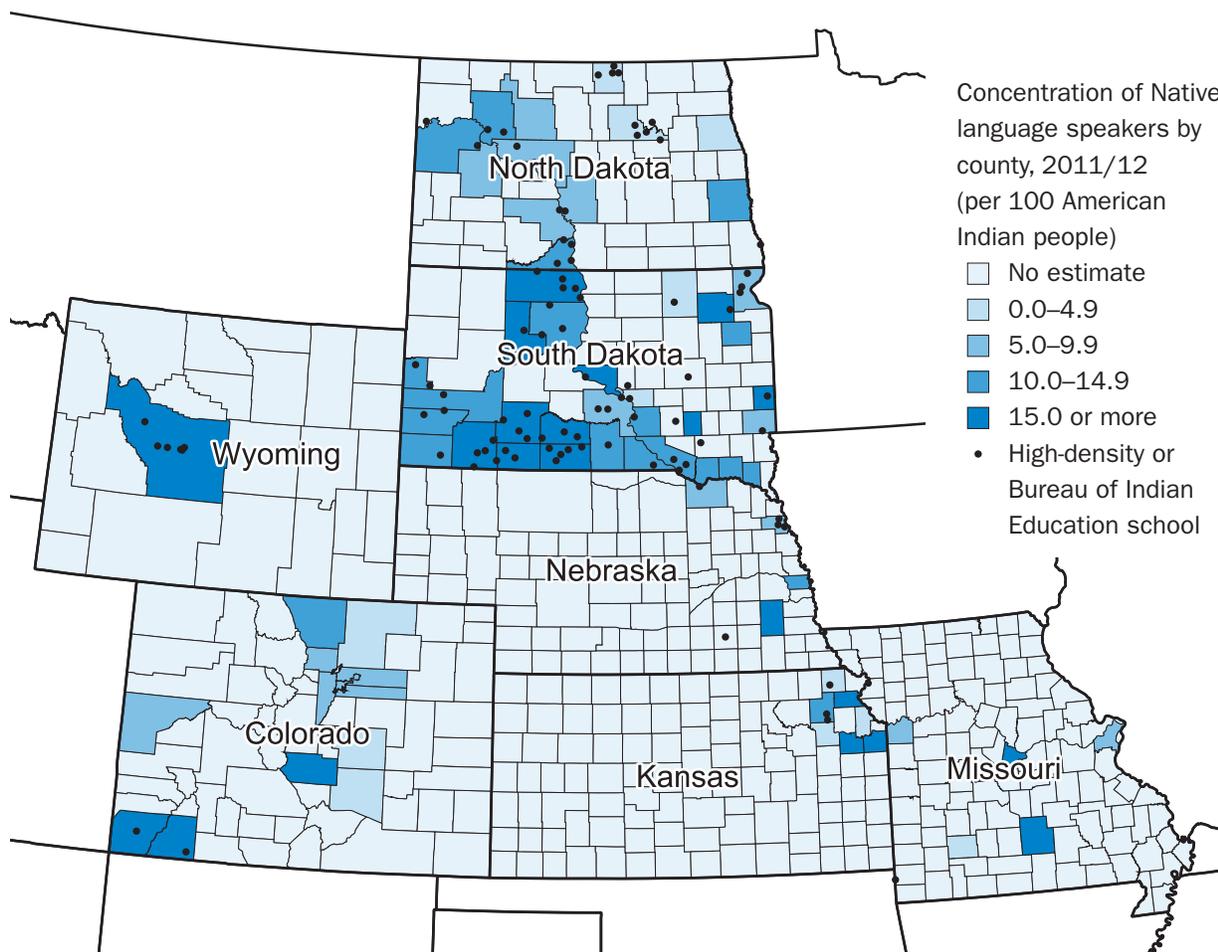
**Source:** Authors' calculations based on school data from U.S. Department of Education (n.d. b), supplemented by data from U.S. Department of the Interior (2011, n.d.).

### South Dakota has the most schools with high American Indian student enrollment in counties with the highest concentration of Native language speakers

Schools with high American Indian student enrollment in counties with the highest concentration of Native language speakers are clustered in South Dakota, with fewer such schools in North Dakota, Wyoming, and Colorado and no such schools in Nebraska, Kansas, and Missouri (map 1).

Bureau of Indian Education schools and high-density American Indian schools are distributed by locale somewhat similarly across counties with different concentrations of Native language speakers (table 3). In rural areas the majority of both school types are in counties with a ratio of 10 or more Native language speakers per 100 American Indian people (53 percent of rural Bureau of Indian Education schools and 71 percent of rural high-density American Indian schools), and in nonrural areas a larger share of both types of schools are in counties with either no estimate of Native language speakers or a ratio of fewer than 10 Native language speakers per 100 American Indian people (66 percent of Bureau of Indian Education schools in a suburb or town and 53 percent of high-density American Indian schools in a city, suburb, or town). The distribution of schools by type and concentration of Native language speakers provides a framework for sampling schools in locations that may differ in the role of language in community identity while holding locale (rural versus nonrural) constant.

**Map 1. Schools in counties with high concentrations of Native language speakers are clustered in South Dakota, with fewer such schools in other states**



**Note:** The concentration of Native language speakers was computed by county as the ratio of Native language speakers to American Indian people. Ratios were included only for counties that met a precision criterion—that the ratio did not include 0 within the 95 percent confidence interval. Categories were created based on quartiles, and boundaries were rounded for convenient presentation.

**Source:** Authors' analysis based on county data from U.S. Department of Commerce (2013) and school data from U.S. Department of Education (n.d. b), supplemented by data from U.S. Department of the Interior (2011, n.d.).

### Planning future research

Researchers, educators, and policymakers can use the information in this brief to discuss and develop sampling plans for future research in REL Central Region states that examines the use of Native culture and language to support American Indian students' academic achievement. Specifically, this brief presents information about school characteristics that are important to consider in identifying sites for future research. These characteristics (as well as the states involved) can be used to define strata in developing sampling plans to control for variables when key comparisons are identified and planned.

This brief provides a starting point to discuss and develop plans for future research, but it is important to recognize limitations in these data. Native language speakers are often undercounted or overcounted, and the languages are continually evolving and changing. This produces inaccuracies in accounting for “speakers of diverse Native American Englishes, creoles, and pidgins” (McCarty, 2014, p. 256). Moreover, REL Central’s Native American Education Research Alliance members also discussed the advisability of trying

**Table 3. Number and distribution of schools by type (Bureau of Indian Education or high-density American Indian) and locale, by concentration of Native language speakers, 2011/12**

Concentration of Native language speakers		Bureau of Indian Education		High-density American Indian		Total
		Suburb or town	Rural	City, suburb, or town	Rural	
No estimate <sup>a</sup>	Number	1	2	6	8	17
	Percent	33	6	19	6	8
Fewer than 10 speakers per 100 American Indian people	Number	1	13	11	33	58
	Percent	33	41	34	23	28
10 or more speakers per 100 American Indian people	Number	1	17	15	100	133
	Percent	33	53	47	71	64
Total	Number	3	32	32	141	208
	Percent	1	16	16	68	100

a. Schools in counties where the ratio of Native language speakers to American Indian people within the county did not meet the precision criterion.

**Note:** Percentages may not sum to 100 because of rounding.

**Source:** U.S. Department of Commerce, 2013.

to link language revitalization and academic achievement. Language revitalization and Native language instruction are often intended to help “children enjoy the sheer beauty of speaking their own language” (Fredericks, 2015) and not necessarily to increase academic achievement. Other factors associated with academic achievement need consideration.

Factors to consider along with use of Native language and culture to support academic success are prior student achievement, time to learn, and teacher knowledge and professional development in college and career readiness standards. Because cultural integration has been bundled with teacher professional development in prior research (Kisker et al., 2012), the effects of professional development need examination. Developing theories of action that involve particular approaches to using Native language and culture to support academic success also may be useful to address in future research.

## Notes

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1. In this brief the term “American Indian” includes Alaska Native and is synonymous with “Native American.” Although students with Central American and South American Indigenous backgrounds attend schools in the REL Central Region, this brief focuses on North American Indian students.
2. In this brief the descriptive term “Native” is used when referring to North American Indian or Alaska Native cultures and languages.
3. Education researchers commonly use this categorization (Bureau of Indian Education and low- or high-density) to describe American Indian enrollment, according to definitions provided by the U.S. Office of Indian Education (Moran, Rampey, Dion, & Donahue, 2008).
4. The ratio of Native language speakers to American Indian people is close to, but not the same as, the proportion of American Indian people who speak a Native language. U.S. Department of Commerce (2013) does not report language speakers by racial/ethnic identity and county, so it cannot be assumed that Native Indian language speakers are also American Indian. Furthermore, only ratios per county that met a precision criterion—that the ratio did not include 0 within the 95 percent confidence interval—were selected. Of the region’s 519 counties, the criterion was met for 71, which contained the majority of Bureau of Indian Education and high-density American Indian schools (191, or 92 percent).

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