DOCUMENT RESUME

ED 427 912 RC 021 808

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TITLE American Indians and Alaska Natives in Higher Education: Promoting Access and Achievement.
PUB DATE 1999-00-00
NOTE 21p.; Chapter 10 in: "Next Steps: Research and Practice To Advance Indian Education"; see RC 021 798.
PUB TYPE Information Analyses (070)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Access to Education; *Alaska Natives; *American Indian Education; *American Indians; *College Attendance; College Bound Students; College Preparation; College Students; Culturally Relevant Education; *Educational Attainment; Educational Environment; Higher Education; *School Holding Power; Student College Relationship; Tribally Controlled Education

ABSTRACT

This chapter draws on an extensive literature review to examine factors that influence the access and achievement of American Indians and Alaska Natives in higher education. American Indians are less likely to attend college than other U.S. ethnic groups. This underrepresentation is partly due to precollege attributes: low scores on college admissions tests, relatively low completion of high school core curriculum requirements, and failure to meet other college admissions criteria. Other, perhaps more important, influences on American Indian postsecondary access are school and environmental attributes: lack of qualified Native educators, lack of culturally relevant curriculum, poverty, and family problems. Once in college, American Indians are more likely than other students to attend a 2-year college and are underrepresented among those who have completed a bachelor's degree. Native graduation and persistence rates are also consistently lower than those of the general student population. To promote satisfactory transition from high school to college, governments and colleges must promote K-16 partnerships with tribal communities to elevate the overall level of precollege academic preparation and postsecondary aspirations of American Indian students. Culturally-specific academic and student support services, mentoring programs, and sufficient financial aid are needed once the student gets into college. Tribal colleges are exemplary in developing recruitment, retention, and supportive campus environments, and many non-Indian institutions have also strived to meet the needs of Native students and communities. Contains tables, and endnotes and 71 references. (TD)

CHAPTER 10

American Indians and Alaska Natives in Higher Education

Promoting Access and Achievement

D. MICHAEL PAVEL[1]

American Indian and Alaska Native people are deeply concerned with postsecondary access and achievement, and they are not alone.[2] Improving American Indian access to and achievement in higher education is part of a national agenda to diversify our colleges and universities[3] and is supported by specific initiatives intended to serve the Native community.[4] Overall, the higher education community and the general public must continue to address a legacy of American Indian underrepresentation in higher education as our society strives to move closer to developing democratic and integrated multicultural colleges and universities. By doing so, we as a nation strengthen ourselves to confront the social, cultural, and economic issues that affect all our lives.

To address these issues over time, it is important to determine periodically how well American Indians are gaining access to and achieving in the postsecondary arena. This chapter draws upon extensive literature including a national study describing the characteristics of American Indian K-12 education[5] and a source book on

American Indians in higher education that examines demographics, access, enrollment, degrees conferred, financial aid, faculty representation, tribal colleges, and policy implications.[6]

The chapter begins with an overview of American Indian access to higher education, presenting data on precollege attributes such as admission test scores, core curriculum course completion, and college admissions criteria. This collection of *precollege attribute* data is balanced by an examination of the possible influences of school and environmental attributes on postsecondary access. American Indian achievement in higher education is examined using national data on enrollment and degrees conferred, in addition to persistence and graduation rates at various types of institutions by size and source of control. The chapter reviews the literature to identify actions that promote American Indian achievement in higher education and concludes with comments on an overall strategy to improve American Indian postsecondary access and achievement.

Access to Higher Education

The National Educational Longitudinal Study (NELS:88) of eighth-grade students, which began in 1988, found that American Indians are less likely to be college bound than other prominent groups in the United States. For example, while American Indians represented 0.8 percent of the total sample, only 0.4 percent were college bound; among White (non-Hispanic) students, who represented 74 percent of the total sample, 80 percent were college bound. Myriad reasons exist for this discrepancy. This section examines precollege attributes of American Indian students in tandem with *school and environmental* attributes to understand better the factors that influence movement from high school to college.

Precollege attributes. College admission test scores, core curriculum course completion, and the proportion of students meeting certain college admissions criteria provide some insight into higher education access issues for American Indians. Two predominant college admission tests administered to precollege students are the Scholastic Aptitude Test (SAT) and the American College Test (ACT). As shown in Table 1, overall scores among American Indians generally lag behind the nation in both tests. Although scores rose between 1987 and 1997, on average, American Indians consistently

were 74 to 66 points lower on the combined verbal and mathematical SAT scores and 2.0 to 2.2 points lower than the ACT national average.

Table 1. Comparison of American Indian SAT and ACT Scores by National Norms: 1987, 1996, and 1997[7]

	SAT Scores			ACT Scores		
Group	1987	1996	1997	1987	1996	1997
All Students/National Average	1008	1013	1016	20.6	20.8	21.0
American Indian	934	960	950	18.4	18.8	19.0

American Indian students also appear to rank below the U.S. average in completion of core curricula for high school graduation. As shown in Table 2, only 26 percent of the American Indians did so in 1990 and 31 percent in 1992. This compares to 40 percent of the total U.S. population in 1990 and 47 percent in 1992. While the percentage of American Indian students completing a core curriculum increased by 5 percent between the two periods, these increases are still 14 to 16 percent lower than the total sample.

Additional analysis of NELS:88 data indicates that most American Indian college-bound high school graduates do not meet any of the five specific criteria identified as being important to college admissions officers. For example, only 5 percent of the American Indians had a grade point average of 3.5, compared to 19 percent of the students nationwide. Just 2 percent of the American Indians had

Table 2. Comparison of Percentage of American Indians Completing a Core Curriculum for High School Graduation to Total Sample: 1990 and 1992[8]

	Percent Completing Core Curriculum	
Group	1990	1992
Total Sample	40%	47%
American Indian	26%	31%

a combined SAT of 1,100 or better, compared to 22 percent of all college-bound high school graduates. Approximately 25 percent of the American Indians received positive teacher responses to a series of survey questions, compared to 42 percent of all students. About 58 percent of the American Indian students did participate in two or more extracurricular activities; however, this compares to 68 percent of the total sample. The analysis also reveals that only 24 percent of the American Indian high school graduates completed a college preparation curriculum, compared to 56 percent of all college-bound high school graduates in the sample.

At first glance, per-college attribute data reveal some gains, but they still suggest an inability of American Indian students to perform well on standardized tests and to meet important admission criteria. It is not surprising that they are underrepresented in the higher education arena, which relies on test scores and academically related criteria to screen access and predict success. The problem could, then, be fixed if we got American Indians to do better on standardized tests and to meet important admission criteria that we expect of all Americans.

While attractive on a surface level, the strategy of simply "fixing the American Indian" is unacceptable. This personal-deficit approach does not adequately address the overall complexity of issues that conspire to undermine attempts by American Indians to gain access to postsecondary institutions. Evidence suggests college test scores and academic criteria such as high school grade point averages are not powerful predictors of college success among American Indians.[9] Although it can be helpful to consider such factors, it is still necessary to broaden our scope to include appropriate attributes at the heart of preparing American Indian students for pursuing a higher education degree. Better indicators of success would be the school and environmental attributes that determine the quality of schooling American Indians receive throughout their K-12 experience.

School and environmental attributes. A 1997 report, which uses American Indian data collected through the Schools and Staffing Survey (SASS), provides another vantage point for examining school and environmental attributes that might influence postsecondary access among American Indian students.[10] SASS is

an integrated survey of American schools, school districts, principals, teachers, and student records that includes an oversample of schools funded or operated by the Bureau of Indian Affairs (BIA) and public schools with high percentages of Indian student enrollment. The SASS database is unique because characterizing the national extent of education services received by American Indian students is not easy and is rarely attempted.

The small size of the American Indian population (approximately one percent of the U.S. population) has meant that these students and the school personnel who serve them are almost never represented in sufficient numbers in national education studies to permit reliable and valid generalizations about their characteristics. Furthermore, tribal and linguistic diversity, geographic dispersion, and the tendency of American Indians to reside in remote rural areas have made national studies of this population very costly and beyond the reach of most education researchers. However, the Indian supplement to the ongoing SASS data collection program represents an important effort by the U.S. Department of Education to explain to educators and policy makers many of the issues that confront the schools, administrators, and teachers serving American Indian students.

Using SASS data, a recent study finds that 10 percent of all American Indian students attend schools funded or operated by the Bureau of Indian Affairs (hereafter referred to as BIA/tribal schools) and that 36 percent attend public schools where American Indians constitute 25 percent or more of the total student enrollment (hereafter referred to as high-Indian-enrollment public schools).[11] Nearly all of these schools are small (less than 500 students) and located in rural areas of the United States. This combination of school size and location presents unique challenges when examining postsecondary access issues. For example, educational costs per student are typically higher for rural schools, prohibiting the implementation of advanced or college preparatory classes, while economic and social features such as poverty and low educational attainment among adults may contribute to students not achieving their academic potential. However, small schools also offer potential benefits not enjoyed by larger institutions. Studies conclude that drop-out rates are lower, teaching is more effective, and fewer behavior problems arise in smaller schools.[12]

The quality of students' high school experiences that cultivate postsecondary aspirations and intentions is determined, in large part, by the learning environment that principals and teachers are instrumental in creating. As noted by the Indian Nations At Risk Task Force and White House Conference on Indian Education, a critical need exists to increase the number of qualified American Indian administrators and teachers who can serve as positive role models and who possess knowledge of Indian traditions, cultures, and learning styles. In the 1993-94 school year, only 47 percent of the principals in BIA/tribal schools (where nearly all students are American Indians) and just 13 percent of the principals in high-Indian-enrollment public schools were American Indians. Sixty-six percent of the BIA principals and 29 percent of the public school principals had received training in Indian education administration. Such training could enhance program development and community relationships designed to meet the needs of American Indian students. Only 38 percent of the teachers in BIA/tribal schools and 15 percent of the teachers in high-Indian-enrollment public schools were American Indians; nationally very few teachers reported they had majored or minored in Indian education (0.05 percent), and even in BIA/tribal schools, only 2 percent held a college major or minor in this area.

The serious issues facing schools in which American Indians constitute a significant percentage of the student body can provide additional insights into learning environments. More than 40 percent of all principals and teachers in BIA/tribal schools and high-Indian-enrollment public schools reported that poverty was a serious problem in their communities. Poverty and the associated lack of social services in rural areas probably contributed to additional problems identified as serious (parental alcohol and drug abuse, lack of parental involvement, student absenteeism, and student apathy) by 25 to 40 percent of principals and teachers. These statistics are not indictments, but too many resonate throughout Indian country for us to ignore the important and far-reaching impact that good schools and educated youth can have upon our communities.

Achievement in Higher Education

This section examines postsecondary enrollment, degrees conferred, and graduation and persistence rates at various types of institutions, and presents findings that promote campus climates conducive to American Indian achievement in higher education. American Indians appear less likely to enroll in four-year institutions compared to the national norm. As shown in Table 3, between 1993 and 1995, the percentage of American Indians enrolled in public and private four-year institutions ranged from 48.1 to 50.0 percent; enrollment in public and private two-year institutions ranged from 50.0 to 51.9 percent. However, the national norm favored enrollment in four-year over two-year institutions, with approximately 61 percent attending four-year schools. These findings suggest American Indians are not on parity with the rest of the nation in achieving enrollment in four-year degree institutions that may provide better opportunities for employment and graduate education.

Table 3. Comparison of American Indians to Total Percentage Enrolled in Postsecondary Institutions by Selected Characteristic: 1993, 1994, and 1995[13]

	Year of Enrollment					
	1993		1994		1995	
Selected Characteristic	American Indian	Total	American Indian	Total	American Indian	Total
Men	42.1%	44.9%	41.6%	44.6%	41.7%	44.5%
Women	57.9%	55.1%	58.4%	55.4%	58.3%	55.5%
Public 4-year	37.7%	40.9%	37.3%	40.8%	38.7%	40.8%
Public 2-year	49.7%	37.3%	49.6%	37.2%	48.0%	37.0%
Private 4-year	10.4%	20.2%	10.7%	20.5%	11.3%	20.7%
Private 2-year	2.2%	1.6%	2.4%	1.5%	2.0%	1.5%
Undergraduate	92.6%	86.2%	92.2%	85.9%	91.9%	85.8%
Graduate	6.0%	11.8%	6.4%	12.1%	6.5%	12.1%
Professional	1.4%	2.0%	1.4%	2.1%	1.6%	2.1%

As shown in Table 4, American Indians also are underrepresented among those who have completed a bachelor's degree program; of the total number of bachelor's degrees awarded in 1994-95, only 0.6 percent were awarded to American Indians. A longitudinal study of American Indians who were high school sophomores in 1980 found 58 percent eventually completed high school while only 7 percent received a bachelor's degree; 0.5 percent had obtained a master's degree by 1992. Among a sample of American Indian students in a longitudinal study of beginning postsecondary students who enrolled for the first time in 1989-90, only 16 percent had received a bachelor's degree by spring 1994 (28 percent were not enrolled and had no degree).

Table 4. Comparison of Number of Degrees Awarded to Total Sample and to American Indians: 1994-95[14]

	Total Sample	American Indian	
Degree	Number	Number	Percent
Associate	539,691	5,492	1.0%
Bachelor's	1,160,134	6,606	0.6%
Master's	397,629	1,621	0.4%
Doctorate	44,446	130	0.3%
Professional	75,800	412	0.5%
Total	2,217,700	14,261	0.6%

Graduation and persistence rates. Graduation and persistence rates give some indication of how well American Indians are achieving in higher education.[15] A 1996 study by the National Collegiate Athletic Association (NCAA) found that about 35 percent of the American Indians who entered as first-time, full-time freshmen graduated within six years. As shown in Table 5, graduation rates at NCAA Division I schools vary depending on size and control. The lowest percentage of American Indians graduating within six years is at small public institutions (25 percent in 1995 and 28 percent in 1996); the highest graduation rate occurs in large private institutions (56 percent). Overall, American Indian students are far less likely to graduate in six years as compared to the general student population.

Table 5. Comparison of American Indian Six-Year Graduation Rates to Total Sample for Division I Institutions by Size and Control[16]

	Size and Control							
	Small Public		Large Public		Small Private		Large Private	
Group	1995	1996	1995	1996	1995	1996	1995	1996
Total Sample	41%	56%	56%	57%	65%	65%	72%	71%
American Indian	25%	28%	33%	35%	45%	44%	56%	56%
Difference	-16%	-28%	-23%	-22%	-21%	-21%	-26%	-25%

As shown in Table 6, the one-year persistence rate at Division II public institutions for first-time, full-time American Indian freshmen was 54 percent for the 1993-94 cohort; the three-year persistence rate was 33 percent for the 1991-92 cohort. These rates were 14 to 16 percent lower than the total average. The one- and three-year persistence rates at Division II private institutions for first-time, full-time American Indian freshmen were similar (56 percent and 33 percent, respectively) but 17 and 21 percent lower than the total average.

First-time, full-time American Indian freshmen appear to fare better at Division III institutions, with one- and three-year persistence rates at public institutions being 64 percent and 46 percent, respectively, and slightly higher at private institutions, with a one-year persistence rate of 69 percent and a three-year persistence rate of 49 percent. However, American Indian one- and three-year persistence rates at public Division III institutions were still 12 and 14 percent lower than the average of the total sample, and at private institutions, the rates were 12 and 18 percent lower.

Promoting postsecondary achievement. Higher education institutions can make a wide variety of interrelated efforts to improve American Indian postsecondary achievement. On one hand, the federal government is an instrumental partner in increasing American Indian postsecondary achievement because of treaty obligations. On the other hand, it is up to the tribes, states, and institutions within those states to sustain worthwhile efforts that will result in measurable improvements.[18]

Table 6. American Indian Freshmen One-Year and Three-Year Persistence Rates for Divisions II and III Institutions by Institutional Control[17]

	Division II				Division III			
	Public		Private		Public		Private	
	1-year	3-year	1-year	3-year	1-year	3-year	1-year	3-year
Group	1993-94	91-92	1993-94	91-92	1993-94	91-92	1993-94	91-92
Total Sample	68%	49%	73%	54%	76%	60%	81%	67%
American Indian	54%	33%	56%	33%	64%	46%	69%	49%
Difference	-14%	-16%	-17%	-21%	-12%	-14%	-12%	-18%

To promote satisfactory transition from high school to college, state governments and postsecondary institutions need to promote K-16 partnerships with tribal communities to elevate the overall level of precollege academic preparation, postsecondary aspirations, and postsecondary orientation of American Indian students. A national assessment of American Indian postsecondary departure is in agreement, finding that weak postsecondary intentions and the lack of ability to integrate social and academic systems both formally and informally, into the college campus, adversely influence postsecondary outcomes.[19]

In response, both the Indian Nations At Risk Task Force and the National Advisory Council on Indian Education received testimony requesting resources to help American Indians become more aware of postsecondary opportunities and better prepared for the academic and social rigors of attending college. Culturally specific academic and student support services are needed once the student gets into college.[20] If services are provided, it is important to ensure that American Indians use and are satisfied with these services,[21] hopefully reducing their anxiety levels enough to find comfortable niches on campus.[22]

Mentoring programs and sufficient financial aid should be made available to American Indian students at postsecondary institutions. The institution should blend linear and holistic thinking within the

classroom. At the same time, the campus community can look beyond overt racism and discrimination in a more concerted effort to motivate students to put forth the effort needed to succeed. Institutional policies to improve American Indian postsecondary achievement should spell out the need for multicultural and relevant education that spawns reciprocity in faculty-student interactions.[23] To improve outcomes for American Indian students, institutions of higher education have to cultivate enduring academic advisor-advisee and intellectual mentor-mentee relationships. These faculty-student relationships should be characterized by caring attitudes conveyed through good communication skills, likable personalities, a willingness to learn cultural norms, respectful interactions, appreciation for different ways of knowing, and high expectations.[24]

Some colleges and universities have already responded to the challenge of improving American Indian access and achievement in higher education.[25] Tribal colleges, in particular, are exemplary in developing recruitment, retention, and campus environments that facilitate American Indian student achievement.[26] Paul Boyer's report on the tribal colleges finds that "research, site visits, accreditation reports, and government audits all confirm their effectiveness. Tribal colleges have proven their ability to enroll students who were not served by higher education, to graduate students who have dropped out of other institutions, and to sponsor successful community development programs."[27]

Another study demonstrates that tribal college personnel know and readily accept their roles in serving a wide variety of needs within the community.[28] The expanded nature of this target population results in programming designed to reach the populations that need to be served. The service population includes students with a wide variety of characteristics: learning disabilities, low academic confidence, a desire but inability (due to conflicting demands) to make contact with college staff, the initiative to take advantage of services offered by the college to further their education, the need to participate in training and workshops, interest in one or two particular courses, and aspirations and commitment to obtain a college degree.

On the reservation, being able to initiate a conversation with somebody who is functionally illiterate is as meaningful to the tribal college staff as being able to clarify a program of study for a student

who enrolls in a degree program. Although this may not be reflected in institutional enrollment records, tribal college staff nonetheless gain a deep sense of personal satisfaction when reaching out to serve people in need, regardless of the need. Whether a person needs somebody to read something to them or guidance on how to get fully enrolled in a degree program, access is promoted and achieved by tribal college personnel. Faculty and staff in these institutions are impressive in that they care about, encourage, and attend to the developmental needs of students and their families in such a way that it becomes institutionalized and personalized. This spirit of giving provides fertile ground for a growing sense of optimism among tribal members.

Many non-Indian institutions have also strived to meet the needs of tribal communities and American Indian college students. Early outreach by these institutions evolves into long-term relationships with secondary schools and tribal communities. Often the number of alumni from particular tribal communities increases, and alumni play a vital role in promoting student and faculty organizations that advance the institution's mission to serve American Indian students and communities. Beneficial activities include academic programs and student support services that provide employment opportunities; grant support; technical support; culturally sensitive counseling; cultural support networks; scholarly opportunities; and the chance to interact with faculty about substantive issues regarding American Indians past, present, and future. Exemplary institutions try to establish family relationships with the American Indian people.

Important strides are being made to address the needs of American Indians in different disciplines. In the field of education, various observers have called for learning about American Indian students and families through immersion into and experience with communities;[29] creation of nontraditional admissions policies and instructional delivery;[30] work with tribal governments;[31] and emphasis on hiring knowledgeable personnel and providing professional development.[32] Institutions like Haskell Indian Nations University and Diné College have developed programs that use the best practices in teacher education and incorporate valuable knowledge about Indian education, learning styles, and culturally appropriate curricular materials.[33]

However, teacher education is not alone in showing growth in positive outcomes for American Indian students. Programs in psychology recruit and retain promising students through culturally appropriate, sensitive programs and outreach[34] and develop relevant curricula complemented by job placement services.[35] Business programs are beginning to see the value of working with tribal economic development strategies.[36] The science, mathematics, and engineering fields have become more familiar with specific needs among American Indians,[37] assessing enrollment and completion trends,[38] and offering summer institutes and undergraduate and graduate research/support programs.[39]

Conclusion

As we embark upon each school year, concerned educators should review American Indian access to and achievement in higher education. Improvement in these areas will require federal, state, and tribal governments to collaborate on an agenda to increase the number of American Indian students who enter into and graduate from college. Several initiatives can arise from such collaboration: partnerships that link schools serving American Indians to businesses so students can explore and get training in various career opportunities, schools that work with tribal communities to increase parental involvement and community empowerment in determining the mission and scope of the school, and higher education communities that collaborate with American Indian communities to address barriers to advancing the postsecondary recruitment and retention of American Indian students.

Schools and postsecondary institutions have established policies that clearly articulate a commitment to meet the intellectual and cultural needs of American Indian students. Academic disciplines have been successful in creating comfortable academic and social environments while reaching out to tribal communities to find out what needs to be addressed and increasing the pool of prospective American Indian applicants. Within the big picture, all these initiatives (small and large) are brought together by a level of sincerity and commitment that strives to fundamentally change the education system to better meet the needs of all American citizens, including American Indians.

Notes

1. D. Michael Pavel (Skokomish) is an assistant professor in the College of Education at Washington State University.

2. From this point, the term *American Indian* is inclusive of Eskimos, Aleuts, and other Alaska Natives. At times, "Indian" or "Native" might be used to refer to American Indians and Alaska Natives.

3. See Bennett, *Research on Racial Issues*; Justiz, *Minorities in Higher Education*; Richardson and Skinner, *Achieving Quality and Diversity*; and Shom, *Minority Access to Higher Education.*

4. Indian Nations At Risk Task Force, *Indian Nations At Risk*; Native Education Initiative, *Promising Programs*; and White House Conference on Indian Education, "Executive Summary."

5. See National Center for Education Statistics, *Characteristics.*

6. See National Center for Education Statistics, *American Indians and Alaska Natives in Postsecondary Education.*

7. Figures were derived from the World Wide Web sites for the SAT (http://www.collegeboard.org) and ACT (http://www.act.org). Combined verbal and mathematics scores on the SAT range from 400 to 1,600, and the composite scores on the ACT range from 1 to 36.

8. National Center for Education Statistics, *Condition of Education,* 78. The core curriculum includes four credits in English, three in science, three in mathematics, three in social studies, and two in a foreign language.

9. See Baeza, *Test Item Bias.*

10. See National Center for Education Statistics, *Characteristics.*

11. Ibid.

12. Raywid, *Current Literature on Small Schools*, 2.

13. The author generated these findings from the National Center for Education Statistics, "Fall Enrollment Surveys."

14. Ibid.

15. See Shoemaker, *Graduate Activity Survey.*

16. National Collegiate Athletic Association, *1995 NCAA Division I Graduation Rates Report,* 616-17, 624-25 and *1996 NCAA Division I Graduation Rates Report,* 622-23, 630-31, 636-37. The 1995 four-class average graduation rate includes those who entered as freshmen in 1985-86, 1986-87, 1987-88, and 1988-89, and graduated within six years. The 1996 four-class average graduation rate includes those who entered as freshmen in 1986-87, 1987-88, 1988-89, and 1989-90, and graduated within six years. Large public and private institutions are those enrolling more than 3,500 students.

17. National Collegiate Athletic Association, *1994 NCAA Division II and III Enrollment and Persistence Rates Report,* 13-14 and *1995 NCAA Division II and III Enrollment and Persistence Rates Report,* 13-14. A persistence rate

is based on a comparison of the number of students who started college as first-time, full-time students in a given year (one-year in 1993-94 and 3-year in 1990-91) and the number of those who reenrolled as full-time students in fall of the following year.

18. See Curley, *Future Directions*; Kleinfeld, Gorsuch, and Kerr, *Minorities in Education*; LaCounte and others, *A Plan for American Indian Education*; Minnesota Private College Research Foundation, *Divided We Fall*; Morin, *State Legislation*; New York State Education Department, *Higher Education Opportunity Programs*; Oklahoma State Regents for Higher Education, *Student Transfer Matrix*; and White-Tail Feather, Reed, and Zelio, *State-Tribal Legislation*.

19. See Pavel and Padilla, *American Indian and Alaska Native Postsecondary Departure*.

20. See Minner and others, *Benefits of Cultural Immersion Activities*.

21. See Fogel and Yaffe, *Ethnic Minority*; Dodd and others, *American Indian Student Retention*.

22. Gupta, *Comparison of Anxiety* and Steward, *Two Faces of Academic Success*.

23. See Kirkness and Barnhardt, "First Nations and Higher Education" and Weasel Head, *Learning Styles*.

24. See Gordon, *Academic Advising*.

25. See Pavel, Swisher, and Ward, "Special Focus."

26. See Bad Wound, "Teaching to Empower"; Cross, "Every Teacher a Researcher"; Darden and others, "Segregation of American Indian Undergraduate Students"; and St. Cyr, "Recruiting at Indian Tribal Colleges."

27. Boyer, *Native American Colleges*, 2.

28. See Pavel, *Postsecondary Access*.

29. See Noordhoff and Kleinfeld, *Preparing Teachers for Multicultural Classrooms*.

30. See Grant, "University Reaches Out" and Martin, *Kw'atindee Bino Cummunity Teacher Education Program*.

31. See Shonerd, *Recruiting and Retaining Native Americans*.

32. See Indian Nations At Risk Task Force, *Indian Nations At Risk* and Noley, *Native and Non-Native Teachers*.

33. See Swisher, "Haskell Indian Nations University Model" and Upvall, "Completing the Circle."

34. See McDonald, "New Frontiers in Clinical Training."

35. See Marshall and others, "Multiculturalism and Rehabilitation Counselor Training."

36. See Smith, "The Issue of Compatibility."

37. See Colby, "Broadening the Scope" and Haller and Aitken, *Mashkiki*.

38. See Campbell and others, *Minority Graduation Rates*; Denton, *Minority Medical School Enrollment*; Friedman, "Minorities in Engineering

School"; Matthews, *Underrepresented Minorities*; and Watts and Lecca, "Native Americans and Minority Access."

39. See Caple and others, "Creating a 'Leak-Proof' Minority Pipeline"; Morrison and Williams, *Minority Engineering Programs*; Oros, "Indian Natural Resource, Science and Engineering Program" and "Prescription for Success"; and Sweeney, "INMED Prepares American Indians."

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