Native Faculty in Library and Information Science, 1990–2022

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ABSTRACT

In this study we assessed patterns of representation of Native faculty in Library and Information Science (LIS) programs for the period between 1990 and 2022. We utilized a comparative method and assessed these patterns against trends in representation of Native faculty in postsecondary education across all colleges in the United States. We utilized data from the National Center for Education Statistics and the Association for Library and Information Science Education. We found that the representation of Native faculty in LIS replicated some trends in representation of this population in postsecondary education. In both fields, Native faculty held lower ranking positions, most predominantly as assistant professors. We also revealed that the quantity of Native LIS faculty was extremely low throughout the period assessed, with the possibility of a very few outlier LIS programs driving national statistics. Our study suggests that factors affecting representation of Native faculty in LIS might be similar to those in postsecondary education; yet additional studies are needed to support this projection and identify these factors.

ALISE RESEARCH TAXONOMY TOPICS

Teaching faculty, Education programs/schools, Social Justice

AUTHOR KEYWORDS

Indigenous faculty, LIS graduate education, Longitudinal studies

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Introduction

When it comes to diversity commitments, the field of Library and Information Science faces a "vexing paradox," to quote Poole et al. (2021, p. 258). On the one hand, the field historically has been committed to providing services to diverse populations; on the other hand, it has failed to turn these commitments into tangible outcomes, the authors warn. Poole et al.'s (2021) findings are especially relevant when it comes to servicing Native communities.

The problem of low representation of Native faculty in Library and Information Science programs can be traced back to the 1970s. "The recruitment and training of Native American people in graduate library education programs is exceedingly poor," stated a memo of the American Library Association (ALA) Office for Library Personnel Resource in 1975 (ALA quoted in Littletree, 2018, p. 81). That year only seven Native Americans graduated from Master's library programs (Littletree, 2018). Since then, numerous scholars and professionals have emphasized the significance of investing in the education of Native library professionals (Peterson, 1994; Patterson, 2000; Burke, 2007; Johnson, Phan & Poler, 2011; Jorgensen, 2012), albeit with modest success. In 2020 only 24 Native students graduated from MLS programs across the nation (ALISE, 2021), with only four Native faculty occupying full-time positions in ALA-accredited LIS programs (ALISE, n.d.).

The situation in LIS is not unique. In 2020, Native faculty comprised less than 1% percent of total full-time faculty (ALISE, n.d.), with less than 1% of the total graduate degrees awarded to Native individuals (ALISE, 2021). Similarly to LIS, the problem of the lack of Native persons in graduate education can also be traced back to the 1970s, when less than 1% of graduate degrees were awarded to Native students across all disciplines (Heavy Runner-Rioux, 2017).

The lack of Native people in LIS has many implications. First, it affects the practice of a culturally sensitive handling of Indigenous content in non-tribal institutions, and adds to the deficiency of LIS-trained tribal specialists. It also adds to the difficulties tribes face in repatriating records from non-Native establishments and/or carrying out digitization. Moreover, given the dearth of Native faculty, culturally relevant mentorship of Native students is rare, preventing many individuals from going to school or obtaining a degree (Patterson, 2000; Metoyer, 2010; Littletree, 2018).

The sad irony is that not only does the LIS field call for diversification, but even the White House recognizes the need to invest in education of Native library professionals. The federal recognition of the significance of Indigenous knowledge to science and policy making (The White House, 2022) is a call for mainstream colleges to invest in developing classes on Indigenous knowledge, especially in the information professions. The rapid growth of the Native population adds to this call. This population increased by 85% between 2010 and 2020 to 9.7 million people, according to the 2020 census data (Liebler, 2023). The lack of Native scholars and professionals combined with the history of the LIS field having no curriculum in this area (Andrews & Humphries, 2016) adds to the paradox described by Poole et al. (2021).

One of the factors contributing to this paradox is the lack of studies examining the problem in detail. To date, for example, none of the existing studies offers a systematic investigation of trends in representation of Native faculty in LIS over time. Such a lacuna makes it difficult to determine if the problem of low representation of Native faculty in LIS is a problem related to the discipline, or if it can be attributed to the larger constellation of factors and forces impeding the success of Native persons in academia. To help answer this question, we decided to explore the state of representation of Native faculty in LIS over the past 40 years, hoping to establish a few foundational insights upon which further and more detailed investigations could be built and acted upon.

Literature Review

Our review revealed significant gaps in scholarship. Longitudinal studies of the degree of representation of Native faculty in LIS are rare; the assessments of the same value in graduate education in U.S. mainstream colleges are more frequent, with primary findings coming from STEM and medical training fields. We also learned that the experiences of Native faculty and graduate students tend to be similar (Brayboy et al., 2012). This finding and the requirement of a graduate degree for the faculty career path in mainstream institutions helped us widen our review to include some insights from assessments of factors affecting representation of Native graduate students. Thus, we focused on two bodies of scholarship: assessments of factors contributing to the representation of Native faculty in LIS and similar assessments derived from investigations of different fields. This literature review is not comprehensive and relies primarily on the scholarship disseminated via academic publishing. Reports and assessments conducted by federal agencies and professional organizations were reviewed as supporting sources of data.

Most scholars investigating the factors contributing to the history of low representation of Native faculty in LIS assessed the issue as a component of a larger set of problems associated with the underrepresentation of minority faculty in LIS and as a problem of diversity within the discipline. Multiple scholars concurred with Poole et al.'s (2021) assessment and provided evidence of the discipline underservicing minorities (Josey, 1993; Chu, 1995; McCook & Lippincott, 1997; Kim & Sin, 2008; Jaeger et al., 2011; Yoon & McCook, 2021). These studies helped establish some evidence to support the history of the LIS's insufficient responses to the needs and aspirations of Native communities. However, the tendency of these scholars to assess the issue from a perspective of diversity and/or in terms of the problem of poor services for minorities eclipsed the unique experiences of Native population in LIS and the unique barriers that might have prevented Native students and faculty from succeeding. Fortunately, studies by Native LIS scholars provided us with such missing insights.

Native scholars have identified several factors impeding the success of Native students and faculty in LIS, specifically, the lack of institutional support, discrimination, and the differences between Native ways of knowing and mainstream educational culture (Patterson, 2000; Roy, Bhasin & Arriaga, 2011; Kostelecky, 2016; Littletree, 2018). Several Native LIS educators emphasized the lack of mentorship as a factor affecting the retention of Native students in PhD programs and contributing to the difficulties faced by Native faculty (Patterson, 2000; Roy,

2007; Littletree, 2018). The history of persistence of the demographic disjuncture between LIS students and the national population documented by Mestre (2010), Jaeger and Hill (2017), and Cooke and Jacobs (2018) added to the problem. This factor might have led to the persistent scarcity in the number of Native students in LIS and students from other cultural minority groups, as documented, for example in the 1997 McCook and Lippincott report and the subsequent 2021 report by Yoon and McCook.

These findings correspond to insights shared by scholars examining the representation of Native faculty in mainstream U.S. colleges, especially in STEM and medical schools. Scholars identified prominent structural factors as preventing students from obtaining a degree and from understanding graduate or academic career paths (Walters & Simoni, 2009; Walters et al., 2019). Numerous authors named "cultural dissonance" as affecting the experiences of Native students and faculty (Garrod & Larimore, 1997; Soria & Alkire, 2015; Tinto, 2012; Andrews & Humphries, 2016; Reijerkerk & Nyitray, 2023; Tachine, Cabrera, & Yellow Bird, 2017; Yellow Bird 2020; Brayboy et al., 2012; Hartlep & Ball, 2019; Walters et al., 2019). Many identified the lack or insufficiency of culturally relevant mentoring as affecting the retention of students and the experiences of Native faculty (Tippenconic-Fox & Jo, 2005; Walters et al., 2009; Zambrana et al., 2015; Walters et al., 2019; Chow-Garcia et al., 2022; Page-Reeves et al., 2017). Other factors included "cultural taxation" when Native faculty are expected to serve on committees that faculty see as burdens (Brayboy, et al., 2012; Walters et al., 2019; Zambrana et al., 2017), marginalization and stereotyping (Dvorakova, 2018), and exposure to chronic micro-aggressions (Walters & Simoni 2009).

Methods

Building upon these insights, we conducted a longitudinal study exploring the representation of Native faculty in graduate LIS programs from 1990 to 2022. We established and assessed patterns of representation of Native faculty in LIS and in postsecondary education in the United States. We reasoned that uncovering similarities between these two variables would imply similarities of factors shaping the underrepresentation of Native students in both areas.

We focused on representation in non-tribal graduate programs accredited by the American Library Association (ALA). Our sources of data included reports from the Association for Library and Information Science Education (ALISE) and reports from the National Center for Educational Statistics (NCES) during the three decades from 1990 through 2022.

Population

We included data for "American Indian" and "American Indian or Alaskan Native" racial category for both ALISE and NCES data to be representative of Native faculty. This category was constructed in the United States Office of Management and Budget (US Census Bureau, n.d.) and it guided ALISE and NCES research teams. We employed the umbrella term "Native" to refer to these faculty members. We also recognized that criteria employed by the US federal government differ from the criteria individual tribal communities use to enroll their members;

however, given that no tribal affiliation was reported by either ALISE or NCES, we could not account for these differences.

We chose to include only data for full-time faculty, i.e., positions as assistant professors, associate professors, and professors (referred in the study as "all professors" or "faculty"). We did not include instructors and lecturers, since their often contract-based employment varies from term to term. Additionally, we only included data for "American Indian" and "American Indian or Alaskan Native" for both ALISE and NCES data to be representative of Native faculty. We did not include data on the Native Hawaiian population for methodological clarity.

Limitations

Methodological limitations

In this study we compared degree/levels of representation of Native faculty in LIS with similar indicators from mainstream U.S. colleges. We employed descriptive statistics to identify this relationship aiming to map out direction for future studies. Thus, our estimation did not aim to provide a definitive answer regarding the cause of low representation across both fields, but only to help construct a more definite hypothesis as to what might have caused that problem.

Limitations related to sources of data

The next group of limitations to this study is related to our sources of primary data. ALISE data are collected on a volunteer basis by the reporting universities who are members of ALISE. This method of data collection led to the number of reporting schools fluctuating from year to year. The data also include programs in Canada, which, while a few in number, affected the comparison given that no data on Canadian schools are accounted for by NCES. The NCES collects data from all schools receiving federal funding under Title IV. The reports, therefore, are constructed differently; however, the ALISE Statistical Reports remain the only source data that allow for a comparison throughout time.

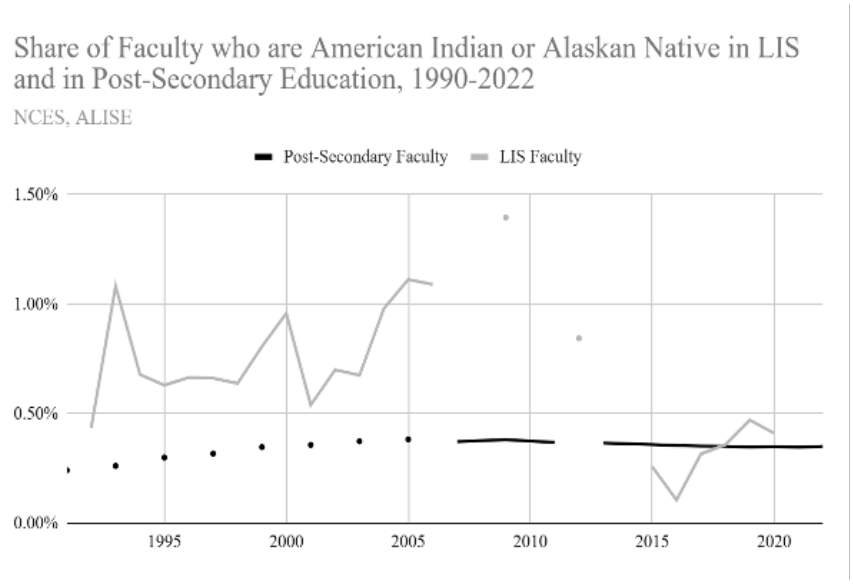
Additionally, differences in the composition of the racial categories of both entities affected the findings to some degree. From 1992 through 2009, ALISE used "American Indian" to collect data on the Native population, while the NCES has employed additional categories since 2008: "Pacific Islander/Hawaii Native" and "Two or More Races" (Wallace, 2012). ALISE adopted these categories in 2012. This lack of consistency in the categories of data collection affected our findings to some degree for the period from 2008 to 2012. Further, while the NCES consistently used the category "American Indian/Alaskan Native" from 1991 onwards, it introduced "Race/Ethnicity Unknown" in 1993 and "Two or more races" in 2011. These changes in categorization and the option to report as multiracial may have led to decreases in the Native faculty counts used in this study. Additional limitations to data analysis are documented in the next section as explanatory components to the findings.

Findings

Our study revealed that there was typically a higher representation of Native faculty in the LIS field than across postgraduate education in the United States. With the exception of the years 2015 through 2018, Native LIS faculty members comprised a higher percentage of total full-time faculty than did Native faculty in postgraduate education (see Figure 1).

Figure 1

Share of Faculty who are American Indian or Alaskan Native in LIS and in Postsecondary Education, 1990–2022



Note. "Faculty" as used here describes only full-time professors, associate professors, and assistant professors. Gaps in the figure represent years with no collected or available data.

Comparing the percentages of Native faculty in LIS, we noted that it is around twice that of Native faculty in postsecondary U.S. education. In LIS the share of Native faculty ranges between 0.5% and 1%, while in postsecondary U.S. education that share falls under 0.5%. At the same time, the representation in postsecondary education has remained steady, around the mean of 0.34% throughout thirty years, while in LIS representation has fluctuated between a low of 0.11% in 2016 and a high of 1.40% in 2009, with a mean of 0.69%.

Given the small number of Native LIS faculty, it is difficult to determine the cause of this pattern or to explain its implications regarding the differences between the state of representation in LIS and in postsecondary U.S. education. Specifically, from the years 1992 through 2020, the total number of Native LIS professors ranged from one to nine, with the median and most common count being three (see Table 1). In comparison, there were as many as 1,863 Native professors in general postsecondary education for any one given year (see Table 1). It is possible that representation of Native faculty in LIS resulted from the efforts of a very few outlier LIS programs. If this is the case, and these outliers were in fact driving national statistics, then a more accurate estimation would result from an analysis taking the effect of outliers into consideration.

The higher share of Native faculty in LIS when compared with overall percentages in postsecondary education could also be attributed to the low number of overall faculty in the LIS discipline. On average, there are only about 621 LIS faculty, so the percentage of Native faculty appears more consequential, despite only representing 4 individuals on average. Additionally, what might have caused the higher share of Native faculty in LIS, in comparison with the overall trends in postsecondary education, is the lesser number of overall faculty in the LIS discipline, as seen in Table 1. Another factor that might have affected these findings is related to the number of programs and schools assessed. While in LIS the number of schools fluctuated between 50 and 70, in postsecondary education the number of schools was much larger.

Table 1

Native and Total Faculty Counts in Postsecondary Education and LIS Education, 1991–2022

	Faculty Professor Counts			
Program	Postsecondary Education		LIS Education	
Ethnicity	*AI/AN*	*Total*	*AI/AN*	*Total*
Year				
2022	1,863	530,026	–	–
2021	1,830	527,457	–	–
2020	1,858	530,045	3	731
2019	1,848	531,380	4	849
2018	1,849	526,184	3	837
2017	1,837	521,454	3	947
2016	1,832	515,990	1	942
2015	1,846	513,879	2	773
2013	1,846	503,535	–	–
2012	–	–	7	829
2011	1,887	510,762	–	–
2009	1,898	498,147	9	645
2007	1,811	485,595	–	–
2006	–	–	7	642
2005	1,789	467,325	7	629
2004	–	–	6	612

2003	1,686	450,938	4	592
2002	–	–	4	571
2001	1,568	438,642	3	556
2000	–	–	5	522
1999	1,478	424,926	4	496
1998	–	–	3	470
1997	1,335	420,223	3	453
1996	–	–	3	451
1995	1,242	414,097	3	476
1994	–	–	3	442
1993	1,066	407,108	5	462
1992	–	–	2	459
1991	936	387,316	–	–
Median	1,831	500,841	3	592
Mean	1,665	480,251	~4	~621

Notes. Postsecondary Education data is sourced from NCES, while LIS Education data is sourced from ALISE. Spaces marked with dashes represent missing data, with the exception of LIS 1991 data, where racial categories were inconsistent with those used in the rest of the study. Numbers with a tilde were rounded to the nearest whole number.

We also learned that Native faculty typically hold lower-ranking faculty positions, especially in LIS education. Both, Native LIS faculty and Native faculty in postsecondary U.S. institutions are primarily assistant professors. 38.5% of Native LIS faculty and 37.7% of Native postsecondary faculty are assistant professors, which are the largest concentrations (see Table 2).

Table 2

Spread of AI/AN and all Faculty Professors in an Average Year by Rank, 1991–2022

	Average Faculty Professor Distribution			
Ethnicity	AI/AN		Total	
	Count	Share	Count	Share
		LIS Education		

Professor	1	24.2%	~170	27.5%
Associate Professor	1-2[a]	37.4%	~229	36.9%
Assistant Professor	1-2[a]	38.5%	~220	35.6%
		Postsecondary Education		
Professor	~522	31.4%	174,361	36.3%
Associate Professor	~515	30.9%	145,196	30.2%
Assistant Professor	~628	37.7%	160,692	33.5%

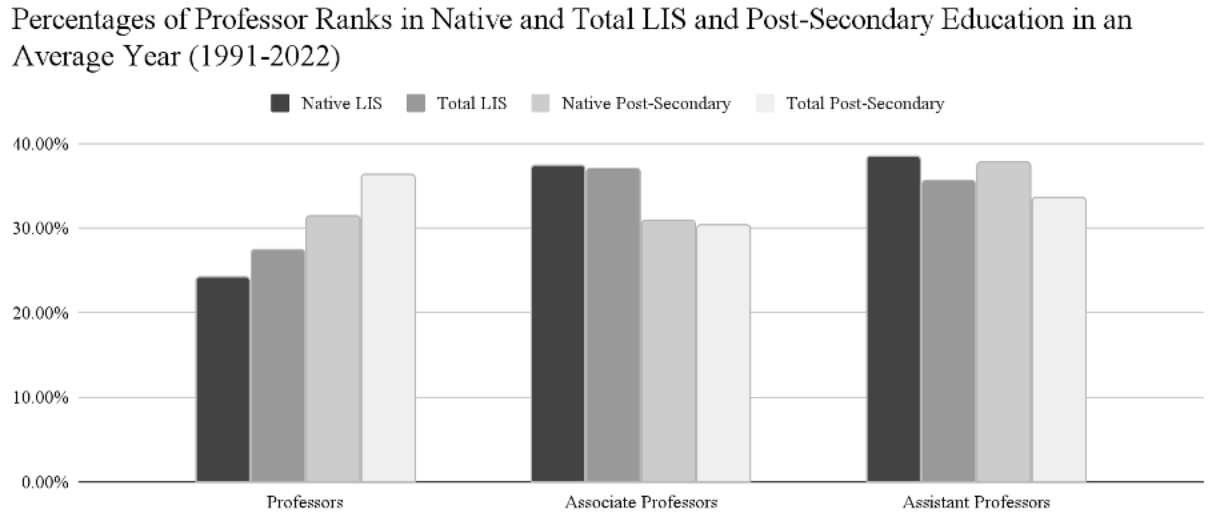
Note. Postsecondary Education data is sourced from NCES, while LIS Education data is sourced from ALISE. Numbers with a tilde were rounded to the nearest whole number. Percentages were rounded to the nearest tenths.

[a]The actual count for AI/AN LIS associate professor is about 1.55, and for AI/AN LIS assistant professor about 1.59.

In line with the higher concentration of Native faculty in assistant professor roles, Native faculty are much less likely to be working as full professors. When comparing Native faculty to total faculty in both fields (LIS and postsecondary education), Native individuals are less likely to hold a position of full professor and most likely to be employed as associate professors and assistant professors (see Figure 2). This is true in both LIS education and postsecondary education. In LIS, 24.2% of Native faculty are ranked as full professors, the total share of full professors in the field being 27.5%. In postsecondary education, 31.4% of Native postsecondary faculty are full professors, the total share of full professors in this field being 36.3% (see Table 2).

Figure 2

Percentages of Professor Ranks in Native and Total LIS and Postsecondary Education in an Average Year, 1991–2022



Note. Postsecondary Education data is sourced from NCES, while LIS Education data is sourced from ALISE.

Additionally, we learned that the LIS graduate education field employs fewer faculty at the rank of full professor, with more faculty holding the position of associate professor and slightly more employed as assistant professors (see Figure 2). In fact, LIS education tends to have the fewest number of full professors: only 24.2% of Native LIS faculty and 27.5% of total LIS faculty are professors, the smallest share (see Table 2). In contrast, general postsecondary faculty are primarily full professors, with 36.3% of total postsecondary faculty ranked as full professors (see Table 2). Taking general postsecondary faculty as a standard, this finding suggests that the field of LIS lacks higher ranking educators, and especially so among Native faculty. The lack of full professors in LIS may create fewer opportunities for mentorship and interest in LIS teaching, due to lower opportunities for professional guidance and perceived advancement potential. Considering the importance of community within Native communities, this would particularly deter Native individuals from pursuing a career in LIS education.

Conclusion

The distribution observed in Native LIS faculty follows patterns seen in both Native postsecondary professors and in total LIS professor representation. The relative lack of full professors reflects the total LIS distribution, while the higher number of assistant professors reflects the Native postsecondary full professor distribution. Additionally, characteristics of the LIS profession that may deter advancement to full professor status could also be causing this lower representation.

It is possible that the barriers causing lower Native representation in general higher ranking professor titles may also apply to Native faculty in LIS. The history of low representation may be a factor resulting in the lack of Native faculty in senior ranked positions (full professors). For example, in 2015 close to two-thirds of all Native faculty in the U.S. were untenured or non-

tenured, i.e., working as lecturers and instructors (National Center for Education Statistics, 2015). Studies highlighting that Native faculty overall tend to leave academia more frequently in comparison to the other racial groups (National Center for Educational Statistics, 1997; Jayakumar et al., 2009; Brayboy et al., 2012) support this finding. However, further research is needed to confirm and identify the overlapping factors between these fields, as well as the identify factors that impede Native faculty success in both fields.

References

Andrews, N. & Humphries, J. (2016, August 13-19). *Negotiating Indigeneity: Fostering Indigenous knowledge within LIS curricula* [Conference presentation paper proceedings]. Eighty-second annual congress of the International Federation of Library Associations and Institutions, Columbus, Ohio, United States. http://ifla-test.eprints-hosting.org/id/eprint/1440/1/168-andrews-en.pdf

Association for Library and Information Science Education. (2021). *Student section: 2021 Statistical Report*. https://ali.memberclicks.net/alise-statistical-reports

Association for Library and Information Science Education. (n.d.). *Full time faculty. 40 Years of ALISE statistics*. https://ali.memberclicks.net/40-years-of-alise-statistics2

Brayboy, B., Fann, A. , Castagno, A., & Solyom, J. (2012). *Postsecondary education for American Indian and Alaska Natives: Higher education for nation building and self-determination: ASHE Higher Education Report*, *37*(5). John Wiley & Sons

Brown, B., Pedersen, M., Harrington, J., Belcourt, A., Windchief, S., Thomas, A., …& Wu, K. (2022). Exploring personal, relational, and collective experiences and mentorship connections that enhance or inhibit professional development and career advancement of native American faculty in STEM fields: A qualitative study. *Journal of Diversity in Higher Education*. Advance online publication. http://dx.doi.org/10.1037/dhe0000376

Burke, S. (2007). The Use of public libraries by Native Americans. *The Library Quarterly,* 77(4), 429-61. https://doi.org/10.1086/520998

Chu, C. (1995). Commitment to multicultural library and information science education: Part 1 – current status. *EMIE Bulletin*, *12*(3), 1–7

Chow-Garcia, N., Lee, N., Svihla, V., Sohn, C., Willie, S., Holsti, M., & Wandinger-Ness, A. (2022). Cultural identity central to Native American persistence in science. *Cultural Studies in Education*, 17, 557–588.doi.org/10.1007/s11422-021-10071-7

Cooke, N. & Jacobs, J. (2018). Diversity and cultural competence in the LIS classroom: A curriculum audit. *Urban Library Journal*, *24*(1), article 2. https://academicworks.cuny.edu/ulj/vol24/iss1/2

Dvorakova, A. (2018). Negative stereotypes deconstructed and transformed in the experience of Native American academics. *American Journal of Education*, *124*(3), 345–371

Elliott, B., Dorscher, J., Wirta, A., & Hill, D. (2010). Staying connected: Native American women faculty members on experiencing success. *Academic Medicine*, *85*(4), 675–679

Forrest, L., Leitner, B., Guzman, C., Brodt, E., & Odonkor, C. (2022). Representation of American Indian and Alaska Native individuals in academic medical training. *JAMA Network Open*, *5*(1). doi:10.1001/jamanetworkopen.2021.43398

Garrod, A., & Larimore, C. (Eds.). (1997). *First person, first peoples: Native American college graduates tell their life stories*. Cornell University Press

Gervais, B., Voirin, C., Beatty, C., Bulltail, G., Cowherd, S., Defrance, S., Dorame, B., Gutteriez, R., Lackey, J., Lupe, C., Negrette, A., Robbins Sherman, N. , Swaney, R., Tso, K., Victor, M., Wilson, R., Yazzie, K., Long, J. , & Hoagland, S. (2017). Native American student perspectives of challenges in natural resource higher education. *Journal of Forestry*, *115*(*5*), 491–497. https://doi.org/10.5849/jof.2016-065R1

Hartlep, N., & Ball, D. (2019). *Racial battle fatigue in faculty: Perspectives and lessons from higher education*. Taylor and Francis Group–Routledge.

Heavy Runner-Rioux, A. (2017). *A Quantitative study on the influence of persistence factors on American Indian graduate students.* [Doctoral dissertation, University of Montana]. https://scholarworks.umt.edu/etd/11016.

Jaeger, P., Subramaniam, M., Jones, C., & Bertot, J. (2011). Diversity and LIS education: Inclusion and the age of information. *Journal of Education for Library and Information Science*, *52*(2), 166–183

Jaeger, P., & Hill, R. (2017). The long walk: Diversity in information studies educational programs, professions, and institutions. In P. Jaeger, J. Bertot, & K. Kettnich (Eds.), *Celebrating the James Partridge award: Essays toward the development of a more diverse, inclusive, and equitable field of library and information science* (pp. 209–215). Emerald. https://doi.org/10.1108/S0065-283020160000042020

Jayakumar, U., Howard, T., Allen, W., & Han, J. (2009). Racial privilege in the professoriate: An exploration of campus climate, retention, and satisfaction. *The Journal of Higher Education*, *80*(5), 538–563

Johnson, C., Phan, C., & Poler, O. (2011). TLAM: Creating Student-driven indigenous LIS at the University of Wisconsin, Madison. In L. Roy, A. Bhasin, & S. Arriaga (Eds.), *Tribal libraries, archives, and museums: Preserving our language, memory, and lifeways* (pp.221-226). Scarecrow Press

Josey, E. (1993). The Challenges of cultural diversity in the recruitment of faculty and students from diverse backgrounds. *Journal of Education for Library and Information Science 34,* 302-11

Jorgensen, M. (2012). *Sustaining Indigenous culture: The Structure, activities, and needs of tribal archives, libraries, and museums.* Association of Tribal Archives, Libraries, and Museums

Kim, K., & Sin, J. (2008). Increasing Ethnic Diversity in LIS: Strategies Suggested by Librarians of Color." *The Library Quarterly, 78(2),* 153-77

Kostelecky, S. (2016). American Indian women in academic libraries: Progress and challenges. In M. Karsten (Ed.), *Gender, race and ethnicity in the workplace* (pp. 359-376). Praeger

Liebler, C. (2023). *American Indian and Alaska Native populations: Envisioning the future.* The Civil Rights Project/Proyecto Derechos Civiles, UCLA

Littletree, S. (2018). *'Let me tell you about Indian libraries': Self-determination, leadership, and vision –The Basis of tribal library development in the United States.* [Doctoral dissertation, PhD University of Washington].

McCook, K., &, Lippincott. K. (1997). Library schools and diversity: Who makes the grade? *Library Journal 122(7),* 30-32.

Mestre, L. (2010). *Librarians serving diverse populations: Challenges and opportunities*. Association of College and Research Libraries

Metoyer, C. (2010). Leadership in American Indian communities: Winter lessons. *American Indian Culture and Research Journal, 34(4)*, 1–12.

National Center for Educational Statistics. (1997). *Digest of education statistics 1997*. U.S. Department of Education

National Center for Education Statistics. (2015). *Digest of education statistics* . U.S. Department of Education. https://nces.ed.gov/pubs2016/2016014.pdf

Page-Reeves, J., Cortez, G., Ortiz, Y., Moffett, M., Deerinwater, K., & Medin, D. (2019). Situating giving back for Native Americans pursuing careers in STEM: "You don't just take, you give something back." *Intersections: Critical Issues in Education*, *3*(1), 3–24

Page-Reeves, J., Marin, A., DeerInWater, K., & Medin, D. (2017). Broadening conceptualization of Native identity as foundational for success among Native Americans in STEM. *Anthropology*, *5*(3), 1–12. http://doi.org/10.4172/2332-0915.1000187

Patterson, L. (2000). History and status of Native Americans in librarianship. *Library Trends*, *49(1)*, 182–93. https://hdl.handle.net/2142/8329

Peterson, L. (1994). Teaching the practitioners: One professor's attempt at library education and sensitivity to multicultural diversity. *Reference Librarian*, *45–46*, 23–38

Poole, A., Agosto, D., Greenberg, J., Lin, X., & Yan, E. (2021). Where do we stand? Diversity, equity, inclusion, and social justice in North American library and information science education. *Journal of Education for Library and Information Science*, *62*(3), 258-286

Reijerkerk, D., & Nyitray, K. (2023). (Re)Moving Indigenous knowledge boundaries: A Review of library and archival collection literature since the enactment of the Native American Graves Protection and Repatriation Act (NAGPRA). *Collection Management, 48(1),* 22–47. https://doi.org/10.1080/01462679.2022.2033144.

Roy L. (2007). *Guiding our destiny: Loriene Roy*. https://www.loc.gov/programs/center-for-the-book/featured-videos/item/2021687900/

Roy, L., Bhasin, A., & Arriaga, S. (2011). *Tribal libraries, archives, and museums: Preserving our language, memory, and lifeways*. Scarecrow Press.

Soria, K., & Alkire, B. (2015). Elevating Native American college students' sense of belonging in higher education. *College Student Educators International, 13 (3).* https://developments.myacpa.org/elevating-native-american-college-students-sense-of-belonging-in-higher-education/

Stein, W. (1994). The survival of American Indian faculty: Thought and action. *National Education Association Higher Education Journal*, *10*, 101–114

Tinto, V. (2012). *Completing college: Rethinking institutional action.*University of Chicago Press

Tachine, A., Cabrera, N., & Yellow Bird, E. (2017). Home away from home: Native American students' sense of belonging during their first year in college. *The Journal of Higher Education, 88 (5),* 785-807.

Tippeconnic F., Jo, M., Shelly C., & McClellan. J. (2005). Where we have been: A History of Native American higher education. *New Directions for Student Services, 109,* 7-15. https://doi.org/10.1002/ss.149

Thomas, A., Hoagland, S., Kills, R., LaPier, R., Grant, A., Wu, K., & Belcourt, A. (2022). Lived experiences of Native American STEM faculty in academia: Our stories, insights, and advice. *Journal of American Indian Education*, *61*(3), 62–88

US Census Bureau. (n.d.). *About the topic of race.* https://www.census.gov/topics/population/race/about.html

Wallace, D. (2012). *Library and Information Science education statistical report.* https://ali.memberclicks.net/assets/documents/statistical_reports/library%20and%20information%20science%20education%20statistical%20report%202012.pdf

Walters, K., & Simoni, J. (2009). Decolonizing strategies for mentoring American Indians and Alaska Natives in HIV and mental health research. *American Journal of Public Health*, *99*(S1), S71–S76. https://doi.org/10.2105 /AJPH.2008.136127

Walters, K., Maliszewski L., Evans-Campbell, T., Burciaga Valdez, R., & Zambrana, R. (2019). Before they kill my spirit entirely: Insights into the lived experiences of American Indian Alaska Native faculty at research universities. *Race Ethnicity and Education*, *22*(5), 610–633

The White House. (2022, December 1). *White House releases first-of-a-kind Indigenous knowledge guidance for federal agencies.* https://www.whitehouse.gov/ceq/news-updates/2022/12/01/white-house-releases-first-of-a-kind-indigenous-knowledge-guidance-for-federal-agencies/

Yellow Bird, E. (2020). *Settler colonial institutions of higher education: Indigenizations, generations & warriors (chasing butterflies).* [Doctoral dissertation, University of Arizona].

Yoon, J., & McCook, K. (2021). Diversity of LIS school students: Trends over the past 30 years. *Journal of Education for Library and Information Science, 62(2),* 109–18

Zambrana, R., Ray, R., Espino, M., Castro, C., Douthirt Cohen, B., & Eliason, J. (2015). Don't leave us behind: The importance of mentoring for underrepresented minority faculty. *American Educational Research Journal*, 52(1), 40–72.