

CMSI RESEARCH BRIEF

Tribal Colleges and Universities: A Testament of Resilience and Nation Building

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Executive Summary

Tribal Colleges and Universities (TCUs) have a unique history within Native American education. Born out of necessity, akin to their federally-designated cousin, Historically Black Colleges and Universities (HBCUs), these Minority Serving Institutions (MSIs) were created to provide educational services for a unique population of students who were denied education or whose physical access to education was limited. Specifically, HBCUs were created because of segregation, which resulted in denied admission to Predominantly White Institutions (PWIs). TCUs were chartered for three reasons: (1) to facilitate nation-building through self-determination (Boyer, 2015); (2) to increase the completion rates of American Indian/Alaska Natives (AI/ANs); and (3) to counteract the forced assimilation policies and practices of the U.S. government and religious institutions.

Until 1934, education by assimilation was the educational policy implemented by the U.S. government (Pevar, 2012); this policy proved to be both equally ineffective and disastrous. By 1932, a total of 385 Native American students had attended a post-secondary institution which resulted in 52 Native Americans completing their degrees (Brayboy, Fann, Castagno, & Solyom, 2012). By the 1950s, the number of AI/AN college students enrolled increased to an estimated 2,000 (Wright, 1991). By 1961, a cumulative total of 66 AI/AN college students had earned their bachelor's degrees since the establishment of Harvard University in 1636 (Wright, 1991). Sparked by the civil rights movement and ineffective educational practices by PWIs, the tribal college movement began to take form with the establishment of the first TCU, Diné College, then known as Navajo Community College

(Boyer, 2015; U.S. Dept. of Education, 1991). This era of nation-building through self-determination followed the federal policy of forced assimilation (Carney, 1999; Oppelt, 1990; Pevar, 2012).

Since 1968, with the inception of Diné College, the number of TCUs has grown to 37 colleges with 75 campuses and sites being operated within 17 states with most of these campuses operating in or near reservations or in rural areas (AIHEC, 2018). According to the American Indian Higher Education Consortium (AIHEC), TCUs are located in seven out of the 10 most economically disadvantage counties. Additionally, TCUs have a student/faculty ratio of 8:1, provide access to an affordable education with an average annual tuition rate of \$2,937, and represent the most diverse student body of Native American tribes (AIHEC, 2018). Specifically, over half of all 573 federally recognized tribes represent the student body at TCUs (AIHEC, 2018). Finally, although TCUs are chronically underfunded, with 71% of two-year TCUs funding and 74% of four-year TCUs funding subsidized by the federal government, TCUs provide a solid return of \$5.20 for every \$1 invested in TCUs (Nelson & Frye, 2016; AIHEC, 2018).

As of the 2015-2016 academic year, TCUs had enrolled approximately 11.2% of all American Indian/Alaska Native (AI/AN) undergraduate students and most institutions have

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expanded their educational efforts to offer dual/concurrent enrollment to high school students (U.S. Dept. of Education, 2015e). Due to the dearth of empirical quantitative research that analyzes the college experiences of students who attend Tribal Colleges and Universities, in this report: I analyzed the descriptive statistics extracted from the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) for enrollment, completion, and financial aid trends for TCUs; I utilized correlation analyses, analysis of variances (ANOVAs), and ordinal regression, to examine the perceptions of support and cultural and educational outcomes for 266 AI/AN TCU students, who participated in the Native American College Student Study (Marroquín, forthcoming) and then compared their experiences to AI/AN students who attended PWIs and Native American Serving Institutions (NASIs).

Enrollment

Since 2010, the overall enrollment of AI/AN undergraduate college students has been on a constant decline. According to data generated for the 12-month unduplicated enrollment from the Integrated Postsecondary Educational Dataset (2010¹, 2011², 2012³, 2013⁴, 2014⁵, 2015⁶), from 2010-2011 to 2015-2016, there has been a 25% (58,357) decrease for AI/AN undergraduate students matriculating at degree-granting institutions and institutions who were participating in Title IV (U.S. Dept. of Education, 2018e). Non-Native Institutions (i.e., PWIs, HBCUs, NASIs, Hispanic Serving Institutions) experienced the biggest decrease at 26% (54,902) while TCUs withstood a 15% (3,455) loss during this period (U.S. Dept. of Education, 2018e).

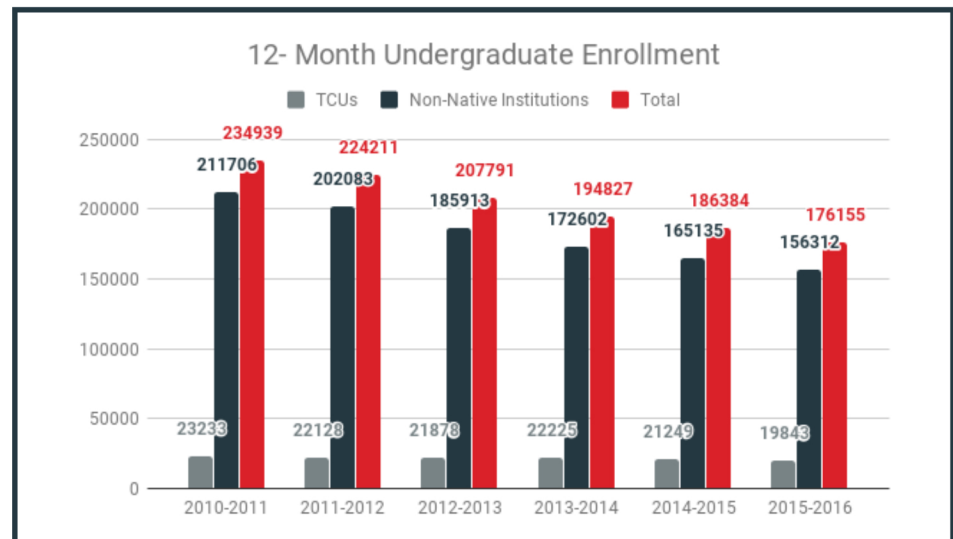
Although, there has been an overall drop in AI/AN enrollment at both non-Native institutions and TCUs, TCUs experienced a 1.3% increase in the overall percentage of AI/AN undergraduate enrollment from 9.9% in 2010-2011 to 11.2% in 2015-2016 (U.S. Dept. of Education, 2018e). Additionally, during

the 2015-2016 academic year, on average, these TCUs enrolled 581 AI/ANs undergraduate students, per institution, compared to the 38 AI/AN students, on average, who enrolled at one of the 4,130 non-Native institutions (U.S. Dept. of Education, 2018e). The five TCUs with the highest enrollment of AI/AN undergraduate students during the 2015-2016 year include:

- (1) Navajo Technical University ($n = 2,229$)
- (2) Dine College ($n = 1,955$)
- (3) Oglala Lakota College ($n = 1,751$)
- (4) Stone Child College ($n = 1,135$)
- (5) Haskell Indian Nations University ($n = 915$)

Finally, the percentage of non-Native students attending TCUs has increased by 1% from 20% in 2010-2011 to 21% in 2015-2016 (U.S. Dept. of Education, 2018b). On average, AI/AN students comprised 79% of the overall TCU student demographic. The five TCUs with the highest percentages of non-Native students during the 2015-2016 year include:

- (1) Fond du Lac Tribal and Community College (71%)
- (2) Bay Mills Community College (46%)
- (3) Keweenaw Bay Ojibwa Community College (46%)
- (4) Iłisaḡvik College (41%)
- (5) College of the Menominee Nation (31%)



¹ Derived from the IPEDS AY 2010-2011 12-month unduplicated headcount. This figure includes 32 TCUs.

² Derived from the IPEDS AY 2011-2012 12-month unduplicated headcount. This figure includes 33 TCUs.

³ Derived from the IPEDS AY 2012-2013 12-month unduplicated headcount. This figure includes 33 TCUs.

⁴ Derived from the IPEDS AY 2013-2014 12-month unduplicated headcount. This figure includes 34 TCUs.

⁵ Derived from the IPEDS AY 2014-2015 12-month unduplicated headcount. This figure includes 34 TCUs.

⁶ Derived from the IPEDS AY 2015-2016 12-month unduplicated headcount. This figure includes 34 TCUs.

During 2010-2011 to 2015-2016 (2011⁷, 2012⁸, 2013⁹, 2014¹⁰, 2015¹¹, 2016¹²) the proportion of AI/AN males enrolled at two or four-year Title IV participating institutions resulted in a .35 decrease; all these losses occurred at non-Native institutions (NCES, 2018e). At TCUs, the enrollment of AI/AN males has remained stagnant at 38% ($n = 8,479$). In 2010-2011, females comprised 62% ($n = 13,649$) of the student body at TCUs, which attributed to a 24-point differential while at non-Native institutions females comprised 59% ($n = 120,144$) of the student body leading to an 18% difference (U.S. Dept. of Education, 2018e).

During the 2015-2016 academic school year AI/AN female undergraduate students¹³ ($n = 12,170$) exceeded the AI/AN male undergraduate students ($n = 7,608$) by approximately 24% at TCUs, which is similar to the 2010-2011 demographics (U.S. Dept. of Education, 2018e). This is 4% higher than the AI/AN students who attended Non-Native, degree-granting institutions where AI/AN female undergraduate students ($n = 93,079$) surpassed the AI/AN male undergraduate students ($n = 63,145$) by approximately 20%. At all but one TCU, Leech Lake College, AI/AN female undergraduate enrollment exceeded AI/AN male undergraduate enrollment (U.S. Dept. of Education, 2018e). The greatest disparity occurred at Sisseton Wahpeton College where 71% ($n = 143$) of the student demographic were female. The top five TCUs with the greatest disparity of female enrollment include:

- (1) Sisseton Wahpeton College,
- (2) Keweenaw Bay Ojibwa Community College,
- (3) Sinte Gleska University,
- (4) College of Menominee Nation, and
- (5) Nebraska Indian Community College.

⁷ Derived from the IPEDS AY 2010-2011 12-month unduplicated headcount. This figure includes 32 TCUs

⁸ Derived from the IPEDS AY 2011-2012 12-month unduplicated headcount. This figure includes 33 TCUs.

⁹ Derived from the IPEDS AY 2012-2013 12-month unduplicated headcount. This figure includes 33 TCUs.

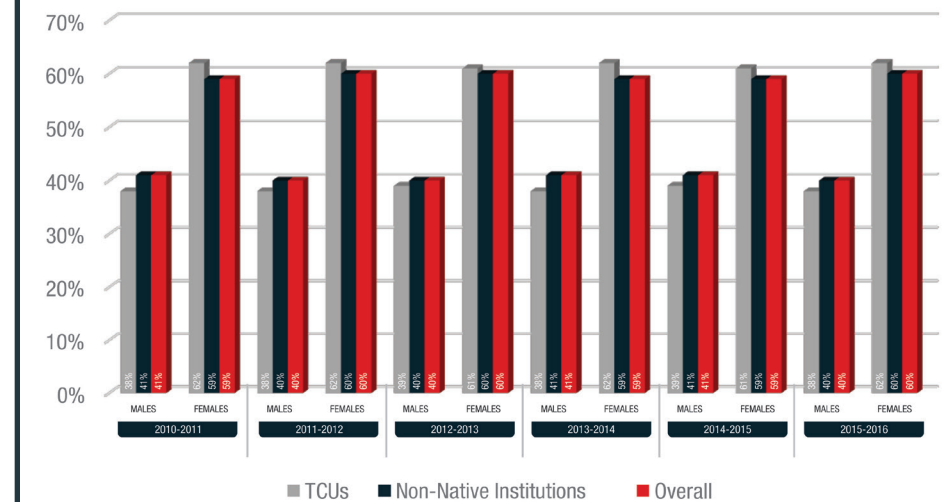
¹⁰ Derived from the IPEDS AY 2013-2014 12-month unduplicated headcount. This figure includes 34 TCUs

¹¹ Derived from the IPEDS AY 2014-2015 12-month unduplicated headcount. This figure includes 34 TCUs.

¹² Derived from the IPEDS AY 2015-2016 12-month unduplicated headcount. This figure includes 34 TCUs.

¹³ This data is not reflective of AI/AN students who identify as transgender, two-spirit, or non-binary.

12-Month AI/AN Enrollment Percentages by Gender



Outcome Measures

According to the National Center for Education Statistics (U.S. Dept. of Education, 2018a) (2011¹⁴, 2012¹⁵, 2013¹⁶, 2014¹⁷, 2015¹⁸, 2016¹⁹) overall associate's degree completion increased by 5% from 2010-2011 (970,563) to 2015-2016 (1,021,421). However, AI/AN associate's degree completion decreased by 6% from 2010-2011 (9,721) to 2015-2016 (9,107) (U.S. Dept. of Education, 2018a). An overwhelming majority of these decreases occurred at non-Native institutions (607) with TCUs sustaining only a .5% (7) loss (U.S. Dept. of Education, 2018a). During the 2015-2016 year, 35 TCUs accounted for 14% of associate's degrees conferred to AI/AN students compared to 86% for the 2,873 non-Native

¹⁴ Derived from the IPEDS AY 2010-2011 awards/degrees conferred by program (2010 CIP classification). This figure includes 32 TCUs.

¹⁵ Derived from the IPEDS AY 2011-2012 awards/degrees conferred by program (2010 CIP classification). This figure includes 33 TCUs.

¹⁶ Derived from the IPEDS AY 2012-2013 awards/degrees conferred by program (2010 CIP classification). This figure includes 33 TCUs.

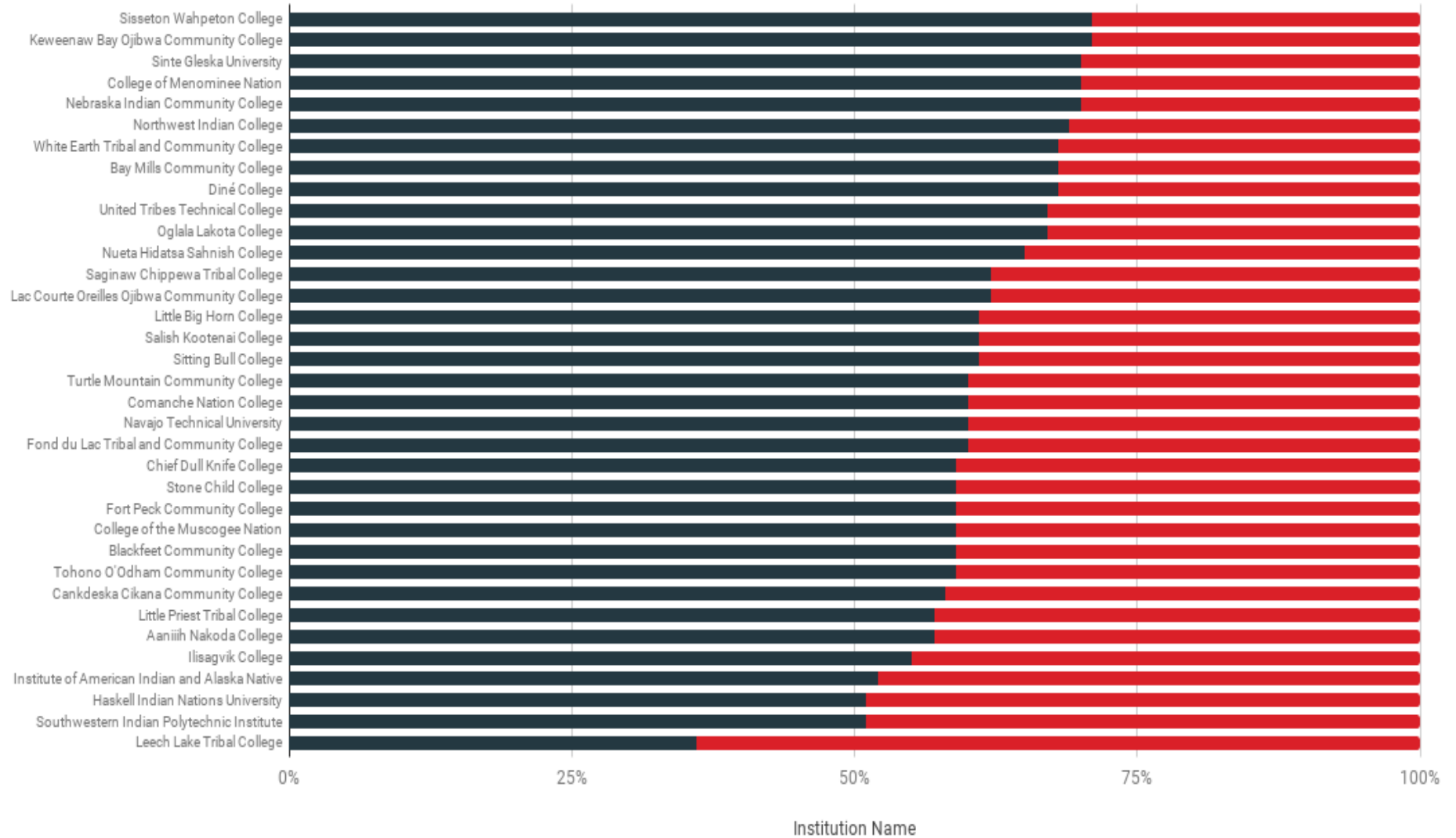
¹⁷ Derived from the IPEDS AY 2013-2014 awards/degrees conferred by program (2010 CIP classification). This figure includes 34 TCUs.

¹⁸ Derived from the IPEDS AY 2014-2015 awards/degrees conferred by program (2010 CIP classification). This figure includes 35 TCUs.

¹⁹ Derived from the IPEDS AY 2015-2016 awards/degrees conferred by program (2010 CIP classification). This figure includes 35 TCUs.

2016 TCU Fall Enrollment Gender Parity

■ Females ■ Males



two-year institutions (U.S. Dept. of Education, 2018a). The top five TCU conferrers of associate's degrees include:

- (1) Dine College (187)
- (2) Haskell Indian Nations University (115)
- (3) Blackfeet Community College (83)
- (4) Northwest Indian College (78)
- (5) Turtle Mountain Community College (75)

The gender parity is even more evident when analyzing associate degree completion rates. During the 2015-2016 academic year, AI/AN females garnered 71% (920) of all associate degrees conferred at TCUs compared to 29% (384) for AI/AN males (U.S. Dept. of Education, 2018b).

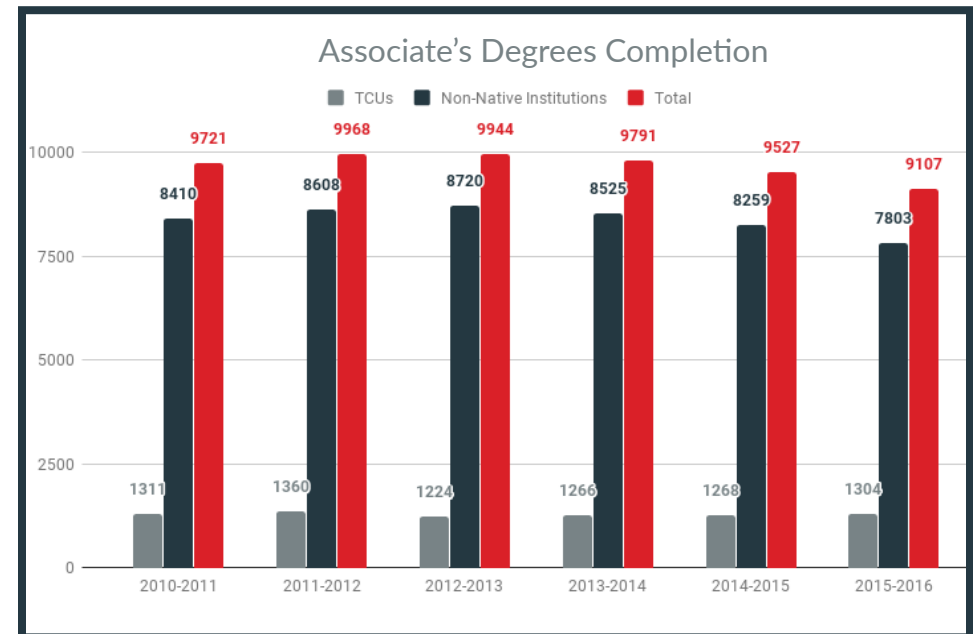
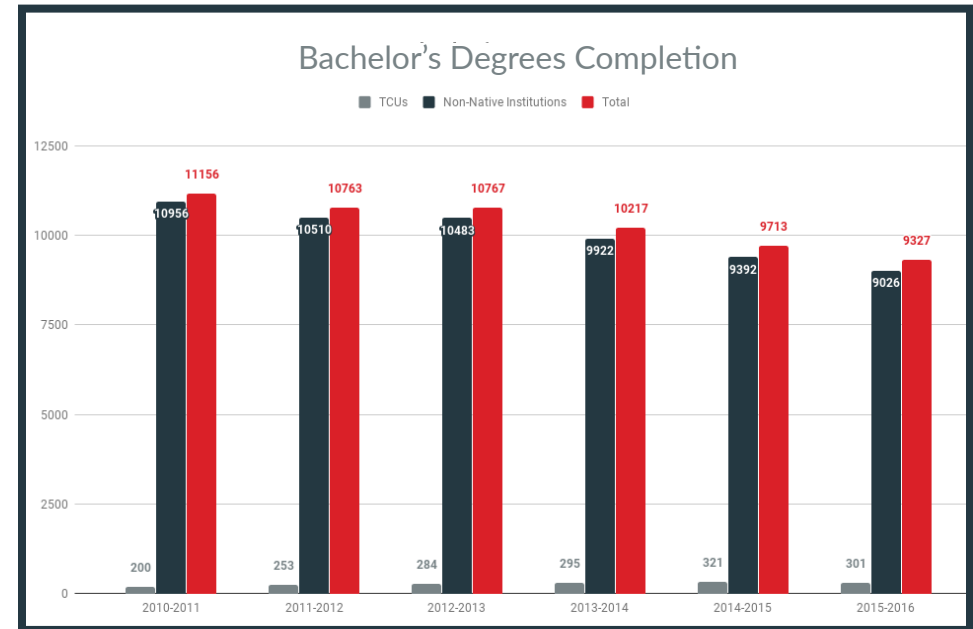
As of 2012-2013, 13 TCUs awarded bachelor's degree and from 2010-2011 to 2015-2016, TCUs experienced a 51% (101) increase in AI/AN bachelor's degree completion (U.S. Dept. of Education, 2018b). In contrast, AI/AN bachelor's degree completion declined at a rate of 18% (1,930) at non-Native institutions (U.S. Dept. of Education, 2018b). The top five TCU conferrers of bachelor's degrees include:

- (1) Haskell Indian Nations University (86)
- (2) Oglala Lakota College (44)
- (3) Northwest Indian College (33)
- (4) Salish Kootenai College (33)
- (5) Institute of American Indian Arts (24)

Career and Technical Education

In addition to being a pathway to a four-year degree TCUs also offer career and technical education. Many TCUs offer applied science degree programs such as carpentry, welding, computer information systems, construction technology, etc., and 23 TCUs also provide certificate programs such as health science and tribal administration (U.S. Dept. of Education, 2018c). During the 2015-2016 year, TCUs conferred 520 certificates (U.S. Dept. of Education, 2018c). The top five TCU conferrers of certificates include:

- (1) Navajo Technical University (155),
- (2) Turtle Mountain Community College (68)
- (3) Blackfeet Community College (65)
- (4) Iłisagvik College (37)
- (5) Bay Mills Community College (30)



One of the objectives in the mission of Native Technical University (NTU), the top conferrer of certificates, is to provide certificates based on a hands-on environment, which leads to self-sufficiency and independence (Navajo Technical University, 2018a; 2018b). NTU accomplishes this by providing 25 certificate programs ranging from commercial driver's licenses to textile and weaving (Navajo Technical University, 2018b). According to the NTU assessment office, there were 144 students enrolled in certificate programs in the 2015-2016 academic year (Navajo Technical University, 2016).

Financial Aid

From 2010-2011 to 2015-2016 (2011²⁰, 2012²¹, 2013²², 2014²³, 2015²⁴, 2016²⁵) the percentage of students attending TCUs receiving Pell Grants increased by 2% and other grants and scholarships (federal, state, local, and institutional aid) increased by 5% (U.S. Dept. of Education, 2018d). On average, for TCU students the amount of Pell Grants awarded has increased by \$34 per student while the amount of other grant and scholarship aid has increased by \$541 per student. During the 2015-2016 year (U.S. Dept. of Education, 2018d), approximately 53% of undergraduate students enrolled at TCUs were awarded a Pell Grant with the average Pell Grant totaling \$3,746. Comparatively, 36% of the undergraduate students, enrolled at non-Native public institutions, were awarded a Pell Grant, with the average Pell Grant totaling \$4,025. Although a greater percentage of students at TCUs received Pell Grants, compared to the percentage of Pell Grant recipients at non-Native institutions, these students were awarded less money than students matriculating at non-Native institutions (U.S. Dept. of Education, 2018d).

Additionally, during 2015-2016 (U.S. Dept. of Education, 2018d) the overall financial aid grant package, which consisted of local, state, tribal, federal, and institutional sources, for TCU students (\$5,721), on average, was less than the overall financial

²⁰ Derived from the IPEDS AY 2010-2011 Financial aid to all undergraduate students. This figure includes 32 TCUs.

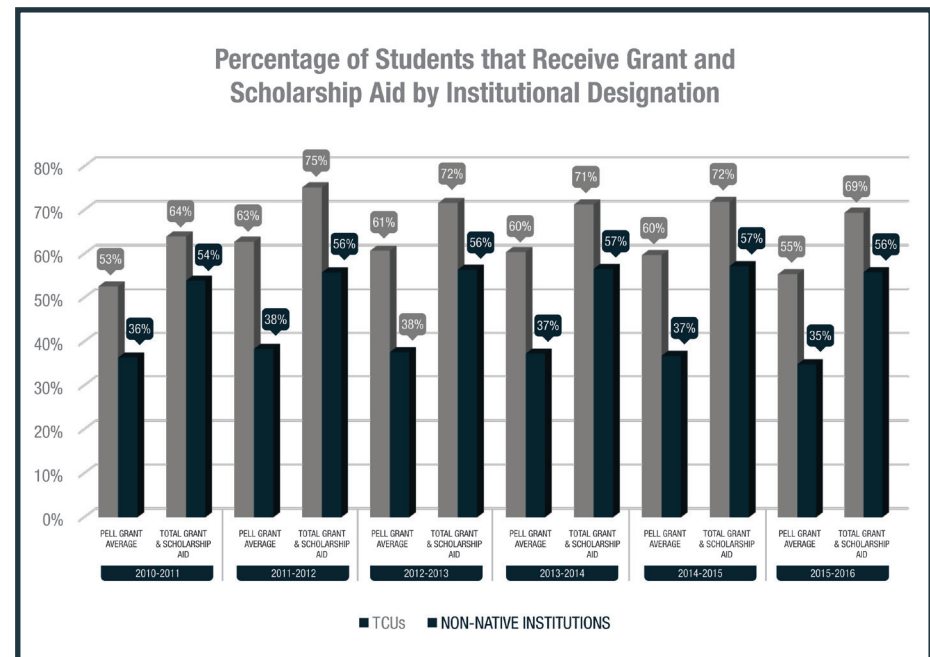
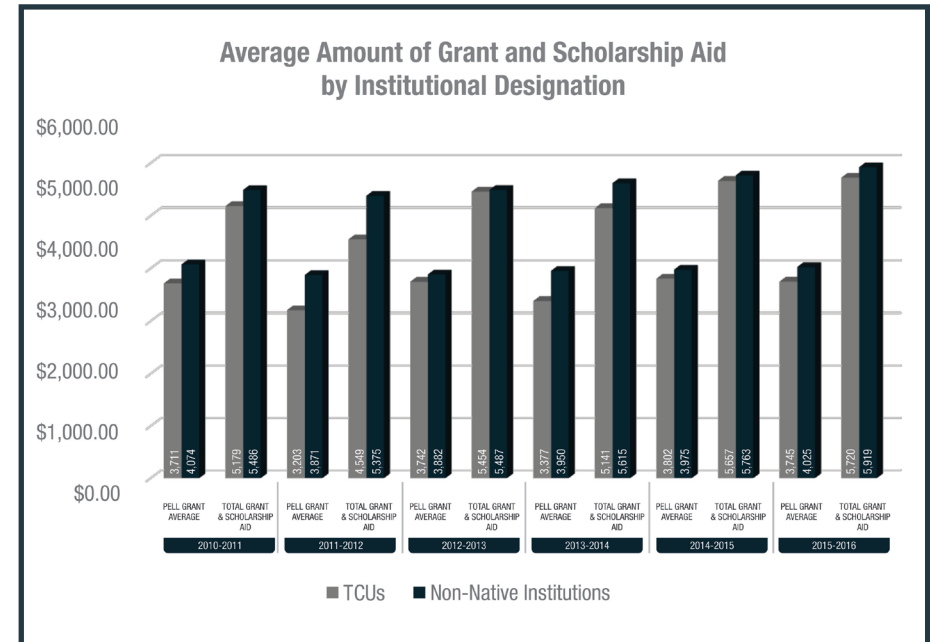
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²⁴ Derived from the IPEDS AY 2014-2015 Financial aid to all undergraduate students. This figure includes 34 TCUs.

²⁵ Derived from the IPEDS AY 2015-2016 Financial aid to all undergraduate students. This figure includes 34 TCUs.



aid grant package at non-Native institutions (\$5,919) (U.S. Dept. of Education, 2018d). While students at TCUs received less aid for Pell, students at TCUs received more grant money from other sources (local, state, tribal, non-Pell federal, and institutional aid) compared to students at non-Native institutions. Additionally, two and four-year undergraduate students who attended non-Native public institutions were 6 times more likely to take out a federal loan when compared to undergraduate students who attended TCUs.

In a direct comparison of two-year associate degree-granting TCUs to two-year public associate degree-granting non-Native institutions, 42% of the students attending a TCU received a Pell Grant for \$3,506 compared to \$3,833 for 38% of students attending non-Native institutions (U.S. Dept. of Education, 2018d). The overall financial aid grant package for 56% of students attending TCUs was \$4,810 compared to \$3,804 for 51% of students attending non-Native institutions. On average, only 7% of students enrolled at TCUs received a federal loan compared to 16% of students receiving a federal loan at non-Native institutions. Fond Du Lac Tribal and Community College was the only two-year TCU to award federal student loans (U.S. Dept. of Education, 2018d).

The top five TCUs that awarded the most grant aid per student during the 2015-2016 year include:

- (1) Sitting Bull College (\$9,961)
- (2) Northwest Indian College (\$9,613)
- (3) Institute of the American Indian Arts (\$8,803)
- (4) Leech Lake Tribal College (\$8,792)
- (5) United Tribes Technical College (\$8,275)

Culturally-Specific Missions and Culturally Relevant Outcomes

According to AIHEC (2018), TCUs were established to rectify “(1) the failure of the U.S. higher education system to address the needs of American Indians; and (2) the need to preserve our tribal culture, language, lands, and sovereignty” (p. 1). Preserving culture and language is paramount and is reflective and distinctive in the mission of most TCUs. I analyzed the mission statements of 35 TCUs and I found that the word culture appeared 27 times, while language appeared 15 times. Therefore, tribal culture and language are essential components and outcomes of a TCU education.

To understand the experiences of AI/AN students who attend TCUs, I analyzed data from the Native American College Student Study (Marroquín, forthcoming). In this study, 1,066 AI/AN students participated in a survey-instrument development and validation study. The purpose of this study was to assess whether perceptions of support from one's family, tribe, institution, faculty, staff, and peers affect cultural integrity (maintenance of cultural traditions and cultural identity). In turn, how does having higher levels of cultural integrity affect cultural reciprocity (perceptions of learning other cultures and sharing one's own culture while on campus), cultural resiliency (perceptions of overcoming adversity and maintaining a strong sense of one's native culture), grade point average (GPA), and persistence. A total of 265 Alaska Native, American Indian, and Canadian First Nation tribes were represented with students from over 70 institutions participated in the study.

Items for cultural reciprocity, which included two items, and cultural resiliency, which included three items, were measured on a seven-point Likert scale and mean scores were created for each factor. Rating an item as one indicates low perceptions of cultural reciprocity and cultural resiliency while rating an item as seven indicates high perceptions of cultural reciprocity and cultural resiliency. To evaluate the perceptions of cultural reciprocity and cultural resiliency for students who attended TCUs ($n = 266$), Native American Serving Institutions (NASIs)²⁶ ($n = 159$), and Predominately White Institutions (PWIs) ($n = 641$), analysis of variances (ANOVAs) were utilized to assess mean differences. For cultural reciprocity (table 1) and cultural resiliency (table 2), students who attended TCUs had statistically significant higher means scores than students who attended PWIs and NASIs. In short, students who attended TCUs had higher perceptions of cultural exchange and cultural resiliency. Additionally, students were asked if they could communicate in their tribal language or dialect while on campus. An overwhelming majority (75%) of TCU students indicated yes compared to 43% of the AI/AN students who attended PWIs and 33% of the students who attended NASIs.

“AI/AN students who attended TCUs were two times likely to speak their Native language on campus than students who attended PWIs.”

²⁶ According to the U.S. Department of Education (2015) Native American Serving Non-Tribal Institutions must have an undergraduate enrollment of at least 10% of American Indian/Alaska Native and must qualify for Title III status.



Perceptions of On-Campus Support Mechanisms

In addition to ensuring that culture is an essential tenet in TCU education, another fundamental principle of a TCU education is to create a positive and thriving learning environment for students. To do so, institutions must create a culture of support for their students. To measure the perceptions of support for TCUs, data from the Native American College Student Study (Marroquín, forthcoming) will be examined to assess differences between institutional designation for faculty, institutional, staff, and social support. Items were measured on a seven-point Likert scale and mean scores were created for each factor. Rating an item as one indicates low perceptions of support while rating an item as seven indicates high perceptions of support. ANOVAs were used to examine the mean differences between TCUs ($n = 266$), Native American Serving Institutions ($n = 159$), and PWIs ($n = 641$).

Institutional Support

The institutional support factor included items such as ‘I feel like my college or university has given up on me.’ The purpose of this factor was to gauge whether participants perceived to feel supported by their respective institutions. More importantly, did institutions have specific culturally-relevant initiatives in place, which enabled AI/AN students to feel welcomed, but also, did they perceive their culture was reflective on campus? I conducted an ANOVA, with post-hoc testing, to calculate participants’ ratings of institutional support. The analyses revealed that students who attended TCUs ($M = 5.68$, $SD = 1.06$) had significantly higher perceptions of institutional support followed by NASIs participants ($M = 5.19$, $SD = 1.29$). Finally, AI/AN students who attended PWIs ($M = 4.60$, $SD = 1.62$) had the lowest perceptions of institutional support. In other words, students who attended TCUs had higher perceptions of cultural continuity and a sense of belonging compared to students who attended NASIs and PWIs.

Table 1: ANOVA Comparisons of Cultural Reciprocity by Institutional Designation

Group	n	Mean	SD	Games Howell Comparisons	
				TCU	PWI
TCU	266	5.58	1.29		
PWI	641	4.28	1.90	<.05	
NASI	159	5.24	1.51	< .001	< .001

Table 2: ANOVA Comparisons of Cultural Resiliency by Institutional Designation

Group	n	Mean	SD	Games Howell Comparisons	
				TCU	PWI
TCU	266	5.67	1.13		
PWI	641	4.27	1.86	<.001	
NASI	159	5.11	1.74	< .001	< .001

Faculty Support

The faculty support factor contained items such as ‘My professors show respect for my culture.’ The purpose of this factor was to measure whether participants perceived to feel supported by their faculty. More specifically, did faculty display cultural competency based on the communication and experiences between students and their faculty? I conducted an ANOVA, with post-hoc testing, to calculate participants’ ratings of faculty support. The analyses indicated that students who attended TCUs ($M = 5.61$, $SD = 1.02$) had higher levels of faculty support than PWI participants ($M = 4.51$, $SD = 1.73$) or NASI participants ($M = 5.14$, $SD = 1.39$). These findings underscore that students who attended TCUs had significantly higher levels of cultural respect and educational expectations from their faculty compared to students who attended PWIs or NASIs.

Staff Support

The staff support factor included items such as ‘My academic advisor shows respect for my culture.’ Precisely, did the staff (e.g., financial aid, student services, academic services) exhibit cultural competency based on communication and interactions between students and campus staff. I conducted an ANOVA, with post-hoc testing, to calculate participants’ ratings of staff support. The analyses were significant and the results revealed that participants, who attended TCUs perceived higher levels of staff support ($M = 5.60$, $SD = 1.14$) than PWI participants ($M = 4.47$, $SD = 1.70$) or NASIs ($M = 4.86$, $SD = 1.63$). The results highlight that students who matriculated at TCUs had significantly higher levels of cultural respect and educational expectations from their respective institutional staff compared to students who attended PWIs or NASIs.

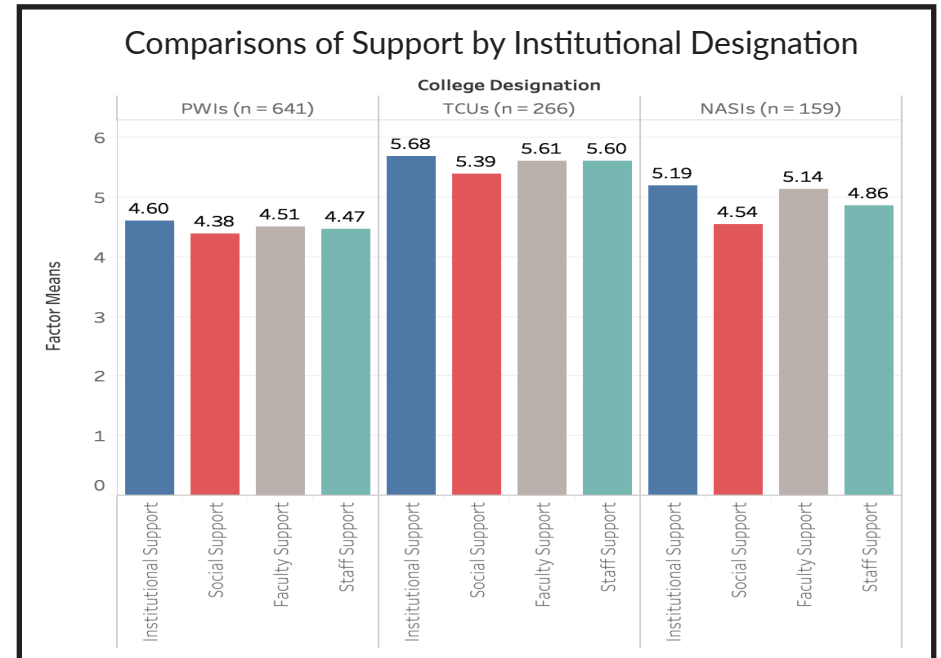
Social Support

The social support factor included items such as ‘I see my friends on campus as family.’ Distinctly, this factor evaluated the interactions between participants’ campus peers and their participation in campus groups. I conducted an ANOVA, with post-hoc testing, to calculate participants’ ratings of social support. The analyses were significant and the results suggest that participants who attended TCUs had higher levels of social support ($M = 5.39$, $SD = 1.28$) than PWI participants ($M = 4.38$, $SD = 1.73$) or NASI participants ($M = 4.53$, $SD = 1.44$). Particularly, students who attended TCUs had significantly higher levels of interactions with their peers and viewed their campus friends as an informal family.

“TCU AI/AN students had significantly higher perceptions of faculty, institutional, staff, and social support compared to AI/AN students who attended PWIs”

The AI/AN LGBTTTQ TCU Student Experience

Little is known about the Lesbian, Gay, Bisexual, Transsexual, Two-Spirit, Queer (LGBTTTQ) AI/AN college student experience at PWIs. Moreover, the literature is non-existent when it comes to assessing the experiences and perceptions of LGBTTTQ AI/AN students who attended TCUs. What is known about the overall state of college students who identify as non-heterosexual is that university campuses are often intimidating, chilly, and hostile environments for LGBTQ people (Bilimoria & Stewart, 2009; Noack, 2004; Vaccaro, 2012) where these



students experience higher levels of harassment (Bilodeau, 2009; Bilodeau & Renn, 2005; Hart & Lester, 2011; Rankin, 2003).

To gain a better understanding of the LGBTTTQ AI/AN college student experience, I assessed the responses from the Native American College Student Study (Marroquín, forthcoming) of the 188 AI/AN college students who identified as LGBTTTQ and how their perceptions of support vary by institutional designation (i.e., TCUs, NASIs, PWIs). I utilized ANOVAs to analyze institutional mean differences for TCU ($n = 48$), PWI ($n = 121$), and NASI participants ($n = 19$). For institutional, faculty, and staff support, LGBTTTQ AI/AN students who attended TCUs had statistically significant higher means scores than students who attended PWIs. In short, LGBTTTQ students who attended TCUs had higher perceptions of support from their institution, faculty, and staff; there were no significant differences in the perceptions of social support based on institutional designation (See Tables 3, 4, 5, and 6 for ANOVA comparisons of support).

Additionally, students were asked about their perceptions of social isolation. For LGBTTTQ students who attended PWIs, 47% ($n = 57$) reported perceived feelings of social isolation compared to 23% ($n = 11$) of TCU LGBTTTQ students. These findings signify that LGBTTTQ students perceive college campuses at TCUs more welcoming and inviting than the PWI campuses based on interactions with staff

faculty, and initiatives supported by the institution; however, perceived support from peers was low at all institutional designations with PWIs having the highest score followed by TCUs and NASIs ranking last.

“LGBTQ AI/AN students who attended PWIs were two times more likely to report feelings of social isolation compared to students who attended TCUs.”

Factor Definitions	
Institutional Support	The institutional support subscale assesses the perceptions of how much participants felt supported by their institutions. Institutional support will be measured through campus initiatives, cultural continuity, and the sense of belonging that Native students felt once they arrived on campus. This factor includes seven items.
Faculty Support	The faculty support scale assesses the communication and experiences between the faculty and the students at the institution; more so, whether the participants perceived that their professors hold high expectations from them and whether they perceived the showing of respect for their culture from professors. This factor includes seven items.
Staff Support	The staff support scale assesses the communication and experiences between the staff and the students at the institution; more so, whether the participants perceived that their advisors hold high expectations from them and whether the participants perceived the showing of respect for their culture from the advisors and the institutional staff; this factor includes eight items.
Social Support	The social support subscale assesses the interactions between the participants and their peers, participation in student groups on campus, and whether they view campus friends as an informal family. This factor includes seven items.
Cultural Reciprocity (outcome)	The cultural reciprocity subscale assesses whether participants perceived what they learned about other cultures while on campus, but also by how much they have shared their own culture with others.

Other Statistics

As demonstrated earlier, TCUs have done a tremendous job in creating an environment where their Native students feel supported by their institution, faculty, and staff. Within the study, participants were asked ‘Have you ever wanted to leave your current institution?’ Native students at PWIs overwhelmingly answered yes with 62% having wanted to leave their current institution compared to students who attended TCUs with only 31% wanting to leave. Additionally, student were asked an additional question regarding persistence ‘What is the likelihood that you will drop out of your current institution?’ which was rated on a four-point ordinal scale from ‘not at all likely’ to ‘very likely’ and was reversed scored. I utilized ordinal regression to calculate probabilities based on institutional designation and students who attended a TCU had a 71% probability of persisting at the highest level of ‘very likely’ at their current institution compared to students who attended NASIs (61%) and PWIs (39%), which had the lowest persistence rate.

When asked about their financial aid packages, students at TCUs had the lowest student loan rates with approximately 3% ($n = 7$) indicating they had to take out a student loan when compared to 36% ($n = 228$) of students who attended PWIs and 33% ($n = 52$) of students who attended NASIs. Within the institutional support factor, students were asked ‘My university allows me to perform cultural activities (i.e., smudge ‘burn cedar’) while I’m on campus.’ Students who attended TCUs overwhelmingly indicated their institution allowed them to perform such practices with 84% ($n = 227$) agreeing. At PWIs, only 60% ($n = 383$), and at NASIs, only 40% ($n = 61$) of students indicated their institutions allowed them to perform cultural activities while on campus. Furthermore, Native students at TCUs see themselves reflected in the faculty with 83% indicating there is an American Indian/Alaska Native professor they can talk to when compared to 54% at PWIs and 64% at NASIs. Additionally, as stated earlier, TCUs serve very remote locations and the student upbringing (i.e., rural, reservation, urban, Alaska Native village) is reflective of the students who participated in the study. At TCUs, 88% of the participants were from either a reservation, rural area, or from an Alaska Native village compared to 66% at PWIs and 73% at NASIs.

Finally, correlational analyses were used to examine the relationship between grade point average (GPA) and the perceptions of support (institutional, faculty, staff, and social) and the cultural outcomes for AI/AN students who attended TCUs. Results indicated a strong positive relationship between GPA and perceptions of institutional support, $r(264) = .62, p < .001$, GPA and perceptions of faculty support, $r(264) = .64, p < .001$, GPA and perceptions of staff support, $r(264) = .52, p < .001$, GPA, and GPA and perceptions of staff support, $r(264) =$

.51, $p < .001$, GPA. Furthermore, positive relationships were yielded for both GPA and cultural reciprocity, $r(264) = .43$, $p < .001$, and GPA and cultural resiliency, $r(264) = .52$, $p < .001$. This suggests that students with higher GPAs have higher perceptions of support from their institution, faculty, staff, and peers. Finally, students with higher GPAs have higher perceived levels of cultural reciprocity and cultural resiliency.

"AI/AN students who attended TCUs were 1.8 times more likely to stay at their institution compared to AI/AN students who attended PWIs."

Conclusion

Since the first TCU began operations in 1968, TCUs have persevered through enrollment booms, declines, and dwindling federal funding. Since 2010, TCUs have weathered the AI/AN enrollment decline with the biggest impact hitting non-Native institutions. During this time, TCUs experienced a 1.3% increase in the percentage of AI/ANs enrolled from 2010 to 2016. Additionally, during this same time frame, there was a 5% increase in the overall associate degree completions for all students; however, for AI/AN students, a 6% decrease occurred with non-Native institutions incurring most of these losses; TCUs only incurred a .5% (7) decrease. Additionally, although TCUs comprise a small proportion of degree-granting institutions, they enrolled approximately 11.2% of AI/AN undergraduate students and awarded 14.3% of all associate's degrees to AI/AN students during 2015-2016. Furthermore, not only are TCUs an asset to the local economy, they are an extremely affordable option with an average tuition of \$2,937 (AIHEC, 2018) and an average grant aid package of \$5,721 (U.S. Dept. of Education, 2018d). Finally, Native students who attended TCUs perceived to receive more support from their institution, faculty, staff, and peers compared to students who attended non-Native institutions (Marroquín, forthcoming). Additionally, LBGTTQ Native students reported higher perceptions of support from their institution, faculty, and staff compared to LBGTTQ Native students who attended non-Native institutions (Marroquín, forthcoming). Overall, TCUs provide a pivotal role in educating Native American youth. With most TCUs offering dual/concurrent enrollment to local high schools, TCUs are strengthening the K-12 higher education pathway not only for Native Americans, but for those who live in education deserts and economically disadvantaged areas.

Table 3: ANOVA Comparisons of Institutional Support for LGBTTQ Students

Group	n	Mean	SD	Games Howell Comparisons	
				TCU	PWI
TCU	48	6.02	0.76		
PWI	121	4.79	1.50	<.05	
NASI	19	5.66	1.01	= .362	< .05

Table 4: ANOVA Comparisons of Faculty Support for LGBTTQ Students

Group	n	Mean	SD	Games Howell Comparisons	
				TCU	PWI
TCU	48	5.87	0.89		
PWI	121	4.58	1.45	<.001	
NASI	19	5.32	1.30	= .233	< .081

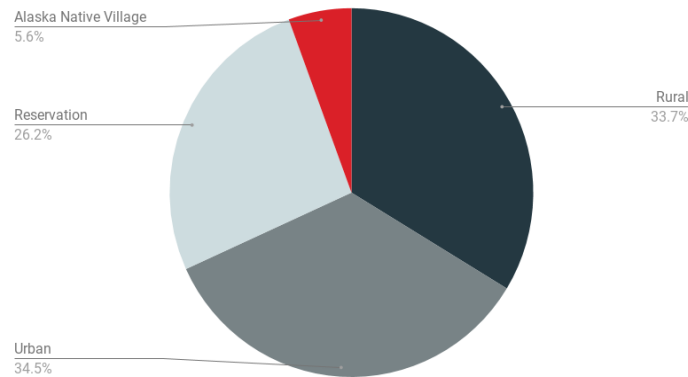
Table 5: ANOVA Comparisons of Staff Support for LGBTTQ Students

Group	n	Mean	SD	Games Howell Comparisons	
				TCU	PWI
TCU	48	6.14	1.36		
PWI	121	4.96	0.69	<.001	
NASI	19	5.41	1.11	= .271	< .05

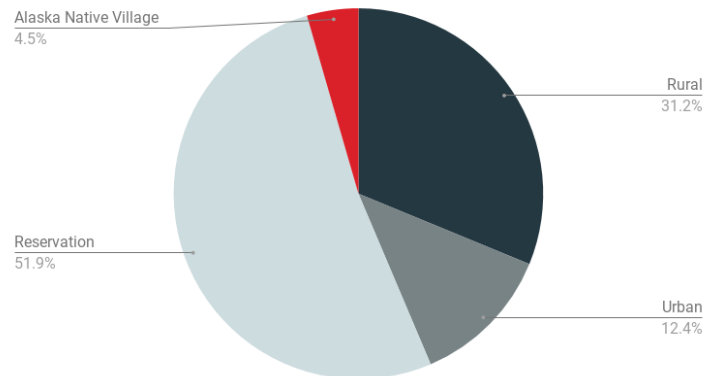
Table 6: ANOVA Comparisons of Social Support for LGBTTQ Students

Group	n	Mean	SD	Games Howell Comparisons	
				TCU	PWI
TCU	48	4.61	1.88		
PWI	121	4.79	2.04	<.857	
NASI	19	4.59	1.61	= .908	< .999

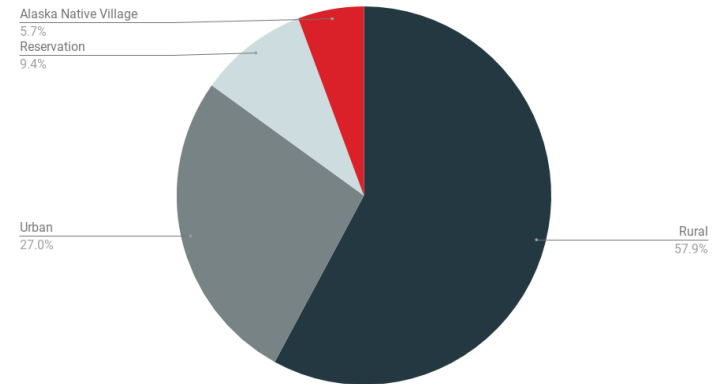
PWI Student Upbringing n=641



TCU Student Upbringing n=266



NASI Student Upbringing n=159



Recommendations

Gender Parity

During the 2015-2016 academic year, female Native college students comprised approximately 62% of the college enrollment at TCUs, which exceeded the enrollment at non-Native institutions by 4%. Additionally, AI/AN males encompassed .3% of the entire college-going undergraduate population (U.S. Dept. of Education, 2018e) with an associate's degree completion rate of .3% and a bachelor's degree completion rate of .2% (U.S. Dept. of Education, 2018b). This makes AI/AN males the least likely demographic to attend college and complete an associate's or a bachelor's degree. To increase enrollment, I recommend that collaborative partnerships and outreach between TCUs and local middle and high schools should be forged to mentor younger Native males. This could allow for the exploration of how contextual variables (e.g. cultural, environmental, and social) can inhibit or facilitate college access for Native males.

Culturally Relevant Outcomes

Native students who attended TCUs reported significantly higher perceptions of cultural reciprocity and cultural resiliency which are in tandem with many of the objectives and missions of the 37 TCUs who are in operation as of 2018-2019. Stull, Spyridakis, Gasman, Samayoa, and Booker (2015) posited that since TCUs are founded in nation-building, tribal sovereignty, and self-determination, these colleges should form their own accrediting body. This would allow for greater autonomy in determining which cultural values and principles are as important as the western ideals of education imposed by the seven regional accrediting agencies.

LGBTQQ Peer Support

The mean scores for social support were dismal across the board for all institutions when it comes to assessing the perceptions of support from campus peers for LGBTQQ college students. These mean scores ranged from $M = 4.59$ for NASIs, $M = 4.61$ for TCUs, to $M = 4.79$ for PWIs. As I have stated earlier, prior research has demonstrated that university campuses can be an unwelcoming environment for students who identify as non-heterosexual. Additionally, other research has shown that peers and friends, while at college, can be a determinant for academic achievement and retention for AI/AN students (Fann 2004; Guillory 2009). Since LGBTQQ AI/ANs encompass a small proportion of the college-going population, deliberations of creating safe spaces, equity, inclusion, and diversity for AI/AN LGBTQQ+ students are often an afterthought for college administrators. Additionally, college administrators and practitioners failed to consider or understand the intersectionality of AI/AN culture and LGBTQQ identity and often these students are relegated to either the LGBTQQ advisor or the multicultural student services advisor, who are often underequipped to handle and assess the unique needs of the multi-faceted, marginalized identities of LGBTQQ AI/ANs. Therefore, it is my recommendation that institutions focus on campus climate, understanding identity development, and examining the intersectionality of multi-faceted, marginalized identities to foster stronger relationships between LGBTQQ AI/AN students and their peers.

Funding

TCUs offer a tremendous educational value by having one of the lowest average tuition rates in the nation (AIHEC, 2018). Unfortunately, that value comes at a high price since TCUs are severely underfunded (Nelson & Frye, 2016). TCUs are often in a precarious situation because unlike public colleges and universities local and state governments are not obligated to fund TCUs (Nelson & Frye, 2016). Most TCUs are located on or near reservations, which is land that is held in trust by the Bureau of Indian Affairs; therefore, the federal government holds title to the land on behalf of the tribe or tribal citizen, meaning there is no property tax that is generated to subsidize both K-12 and higher education institutions that are on reservations (National Congress of American Indians, 2018).

As a result, the Tribally Controlled Colleges and Universities Assistance Act of 1978 (TCCUAA) was enacted to subsidize the operating costs of TCUs, which allocates money only for AI/AN students who attend TCUs (Olivas, 1984). This funding does not include the costs for non-Native students. This means that as more non-Natives begin to matriculate at TCUs, the operating costs begin to stagger. From 2011 to 2015 the TCCUAA allocated \$8,000 for each AI/AN student who attended a TCU; however, for 2011 the average allocated funding

per AI/AN student was \$5,235 (65%) (Nelson & Frye, 2016). In 2011-2012 there were 22,128 AI/AN students enrolled at TCUs which translates to \$61,183,920 in estimated federal funding that TCUs were allocated but not did not receive (U.S. Dept. of Education, 2018e). In 2015, the average allocated funding through the TCCUAA was 79% (\$6,355) (Nelson & Frye, 2016). In 2015-2016 there were 19,778 AI/AN students enrolled at TCUs, which translates to \$32,534,810 in 2015 estimated federal funding that TCUs were allocated but did not receive. (Nelson & Frye, 2016; U.S. Dept. of Education, 2018e).

With the small increase of non-Natives attending TCUs, there needs to be a coordinated effort and expansion of federal, state, and local public agents to support funding that is consistent with program quality and creating a local quality workforce. Approximately 21% (U.S. Dept. of Education, 2018e) of non-Natives attended TCUs in 2015-2016, and aside from collecting tuition, there are no other funding mechanisms for these non-Native students. Policies and strategies need to be considered to assist with the subsidization and funding of non-Native students, so that (1) TCUs are still able to offer a quality education that benefits the local community and (2) TCUs, who are wholly underfunded and have fewer resources, are not being financially penalized for offering educational, career, and technical opportunities that serve local non-Native communities.

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