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The Role Of Tribal Funding In American Indian Postsecondary Success: Inquiry Into The Problem Of Practice

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THE ROLE OF TRIBAL FUNDING IN AMERICAN INDIAN POSTSECONDARY
SUCCESS: INQUIRY INTO THE PROBLEM OF PRACTICE

by

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A Dissertation in Practice

Submitted to the Graduate Faculty

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University of North Dakota

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for the degree of

Doctor of Education

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This dissertation, submitted by DeLana McLean in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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DeLana McLean
July 20, 2022

TABLE OF CONTENTS

LIST OF TABLES	viii
ACKNOWLEDGMENTS	ix
ABSTRACT	x
INTRODUCTION	1
Artifact I.....	2
Artifact II	2
Artifact III.....	3
ARTIFACT I: PROBLEM OF PRACTICE DEFINED	4
Background.....	4
Statement of the Problem.....	6
Research Questions.....	6
Key Terminology	7
Review of Literature	7
Theoretical Framework.....	8
Barriers to Retention and Degree Completion.....	11
Lack of Academic Preparation.....	11
Transition from High School to College.....	12
Lack of Funding.....	12
Socialization (Isolation/Prejudice).....	14
Proponents.....	15

Opponents	17
Student Success.....	19
Free Tuition Models Currently in Use	20
Tennessee	21
Oregon.....	22
New York.....	23
United Tribes Technical College in Bismarck, North Dakota	24
Rationale	24
Conclusion	26
ARTIFACT II: INQUIRY APPROACH.....	27
Overview.....	27
Purpose.....	27
Significance.....	28
Research Questions.....	29
Inquiry Approach	29
Context.....	30
Data Source and Variable Specifications.....	31
Inquiry Design	34
Population	34
Sample.....	35
Data Analysis of Research Questions	38
Limitations	39
Findings.....	40

Success Rates of Students from the MHA Education Grant Program.....	40
Pre- and In-College Characteristics and the First-Year GPA	41
Predicators of the Success Outcomes	44
Interpretation of the Findings.....	46
Pre-College Characteristics.....	46
In-College Characteristics.....	49
Science, Technology, Engineering, and Math (STEM)	50
Conclusion	51
ARTIFACT III: IMPLEMENTATIONS IN PRACTICE	52
Scholar Practitioner Positionality Statement	52
Intended Audience	55
Closing the Loop.....	55
Secondary Educators.....	56
Post-Secondary Educators	58
Families/Community Members	59
Programs and Funding Agencies	60
Tribal Colleges and Universities (TCUs) and Mainstream Institutions.....	61
Student Success Model Implementation Proposal.....	62
Conclusion	65
APPENDICES	66
REFERENCES	68

LIST OF TABLES

Table	Page
1. Variable Specifications	33
2. Demographic Characteristics of Categorical Variables	36
3. Descriptive Statistics of Continuous Variables.....	38
4. Group Statistics for T-tests	42
5. T-tests of Independent Samples	43
6. ANOVA Tests for Family Size, Voting Segments, High School On or Off the Reservation, and Programs of Study.....	44
7. Individual Linear Regressions	45
8. Linear Regression Model for STEM or non-STEM and Diploma or GED on First Year GPA	45
9. Student Success Model Data Points.....	64

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ABSTRACT

The rising costs of college attendance and the diminishing availability of viable funding sources cause students to incur debt in order to pursue postsecondary education. This dissertation in practice examines how one tribal education funding program contributed to the successful transition between high school and college for the enrolled members of the Mandan Hidatsa Arikara (MHA) Nation in North Dakota.

I used a quantitative method to examine which pre-college and in-college characteristics were associated with the success outcomes, such as retention and academic achievement (as measured by the first-year college GPA) after the first year of transition to a postsecondary institution. The data set was compiled manually from the program participants' application forms. The variables of interest included high school grade point average, high school diploma or GED, on/off reservation high school, first-generation, Pell Grant eligibility, institution type, major, first-year grade point average, and retention from first to second year of college. The sample represented 100 participants of the tribal funding program with the evidence showing a higher GPA for those students who earned a high school diploma compared to those students who earned a GED. Other significant findings were associated with students enrolled in a STEM major versus a non-STEM major. Implementation for practice includes a proposal of an assessment model for the MHA Pathways Program to be able to track student success outcomes and relationships with other college variables.

Keywords: high school grade point average, first-generation, Pell Grant eligibility, free college tuition/models, student success, four-year colleges, two-year colleges, community colleges, tribal colleges, grade point average, retention.

INTRODUCTION

American Indian students, compared to non-Native students, are least likely to get into college. And even when these students do go to college, they may encounter barriers that impede their ability to be successful in college. The most prevalent obstacle that American Indian students are confronted with is how to pay for college. However, Tribally-funded programming, such as the MHA Education Grant Program, has assisted in removing the financial barriers for its enrolled members.

Even when financial barriers are removed for American Indian students, other hurdles should be considered, thus, the pre-college and in-college characteristics that may affect student success were examined to determine what, if any, other factors should be addressed when supporting American Indian students. Therefore, this dissertation in practice serves to inform educators at all levels who support American Indian students of the data points that should be collected in order to holistically serve students to ensure they are successful when they get to college.

The Education Grant Program was established by the MHA Nation under Chairman Fox. The goal of the program is to help students pay for college, which allows them to solely focus on their studies rather than worry about how they will pay for the costs associated with obtaining their education. The Education Grant provides to students up to \$4,500 per semester regardless of their chosen program, which is based on enrollment status (full-time or part-time), a minimum grade point average of 2.0, and unmet financial need, which is based on the Free Application for Federal Student Aid (FAFSA).

This dissertation in practice attempts to answer the following research questions:

1. What are the observed success outcomes of the MHA Education Grant Program participants?
2. Do pre-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two; and, do in-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two?
3. What student (pre-college and in-college) characteristics predict the success outcomes such as the first-year GPA and retention?

Artifact I

Artifact I sheds light on the ever-increasing student debt loads that students are incurring in obtaining an education and how free college could help to curtail this problem. Although there are many gaps in the literature, it is through the literature review and the theoretical framework that readers will gain an understanding of the realities that American Indian students face in attempting to be successful college students and the barriers they encounter before going to college. Free tuition models already in use are highlighted as a way to possible solutions, not just for American Indian students, but for all students. Additionally, viewpoints from proponents and opponents are presented.

Artifact II

In Artifact II, I explain the background of the MHA Education Pathways Program and how the program came to fruition. My investigation examined the data from 100 students who are enrolled members of the MHA Nation and participated in the Pathways Program. Using a

quantitative approach, the pre-college and in-college characteristics were examined to determine possible associations of these characteristics with the success outcomes.

Artifact III

In this study I examined if there were pre-college and in-college characteristics that affected the ability of American Indian students to be successful in college and if funding was the only barrier. Stakeholders at all levels of education can help fill the gaps in the literature for American Indian students by collecting better data about their students earlier. This section of my dissertation discusses how to assist stakeholders by proposing an evaluation model for the improved collection of data in order to provide better, holistic services to American Indian students.

ARTIFACT I: PROBLEM OF PRACTICE DEFINED

Background

The cost of pursuing higher education has been on the rise. In recent years government funding for higher education has been on the decline, and in response colleges have had to increase their cost of attendance (Reed & Szymanski, 2004). This increase has placed an additional financial burden on students and their families as well as a loss of revenue for institutions of higher learning (Phelan, 2014; Reed & Szymanski, 2004). In other words, students struggle to pay for their education and often make up for the shortfall by using student loans. Unfortunately, this state of affairs has created a student debt crisis because of the amount of debt students have to assume to pursue postsecondary education (Cubberley, 2015; Friedman, 2015; Reed & Szymanski, 2004). However, for American Indian students, there are tribal higher education programs that assist in defraying the costs of their education. I examined how tribal education programs contribute to successful transition between high school and college for enrolled members.

Student debt is at an all-time high and still rising. Originally, financial aid programs were created to increase access for those students who could not afford to go to school, making their educational goals possible. However, it seems that financial aid programs have hit low-income families the hardest with the rising costs of tuition and fees and increased eligibility requirements (Reed & Szymanski, 2004). According to Friedman (2019), the total student loan debt is at \$1.56 trillion, and the total number of U.S. borrowers is 44.7 million and counting. Everett (2015) notes that 58% of students who currently attend community colleges receive student aid in the

following forms: “38% federal grants, 19% federal loans, 12% state aid, and 13% institutional aid” (p. 53). In an effort to pursue their post-secondary education, students have had to incur more debt to help defray the costs of their educational expenses. Even with increased federal aid to students, institutions are struggling to make up for the shortfall from states.

Historically, scholarships were set aside for American Indian students to obtain their higher education. Early colonial colleges such as Harvard in 1650, The College of William and Mary in 1693, and Dartmouth in 1796 all established Indian colleges and set aside funding specifically for the education of American Indians (Bohan, 1996). Fast forward to today and many states have enacted first and last dollar programs. Most recently the Biden Administration is looking at different options at reducing or erasing student loan debt, thus the Debt-Free College Act of 2021 has been introduced to Congress. If passed, the goal of the bill would allow eligible students to attend tuition free at in-state public institutions of higher education. The bill would also require the Department of Education to cover the unmet needs of students at minority-serving institutions and historically black colleges (Govtrack, 2021).

Although the federal government has increased the Pell Grant funding, state funding for higher education is on the decline. When the appropriations for state schools are cut, it causes public institutions to increase the cost of tuition and fees to make up for the deficit. Reed and Szymanski (2004) explain that the easiest way to curtail this intensifying crisis is to make higher education accessible to all. They argue that the federal government should pay all tuition and fees for all students attending a public two-year or four-year school, whether full-time or part-time. If the federal government were to cover the costs of higher education, it would provide more opportunities for students who otherwise believe that getting a college degree is impossible.

Community college students equate to 45% of all learners, and more than 50% of those students are American Indian, Hispanic, and African American. It has been reported that one-half of community college students have dealt with uncertainties, such as housing and food (Higher Learning Commission, 2018). One-third of the college population is comprised of students who are 18 to 21, 40% of which are part-time students, and that almost 50% of students are struggling financially. In addition, 42% of first-year students live at or below the poverty level (Higher Learning Commission, 2018). Even with free tuition models and financial aid, students are struggling to meet their financial obligations.

Statement of the Problem

The rising costs of attending college and the diminishing availability of viable funding sources are causing students to incur too much debt in order to pursue their post-secondary education. Tribal higher education programs assist American Indian students in covering their educational expenses. This dissertation in practice investigated how tribal higher education programs contribute to student success.

Research Questions

The following research questions are the focus of this study. The quantitative method was used to address these questions.

1. What are the observed success outcomes of the MHA Education Grant Program participants?
2. Do pre-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two? Do in-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two?

3. What student (pre-college and in-college) characteristics predict the success outcomes such as the first-year GPA and retention?

Key Terminology

For purposes of this study, the following are operational definitions that are driven by the assessed data.

Student Success: Is measured by the interaction of the pre-college variables and the in-college variables on the first-year outcomes. Student success is academic achievement as measured by the first-year grade point average and retention from year one to year two of study at the same institution.

Academic Achievement: Is measured by first-year grade point average on a scale, ranging from 0.00 to 4.00 and retention from year one to year two of study at the same institution.

Graduation/Completion Rates: Is measured by the student's ability to complete the requirements for their program of study and graduate.

Retention: Is measured by the ability of the student to continue in their program of study from year one to year two.

Persistence: Is measured by the ability of the student to continue in their program of study from semester one to semester two.

Need-Based Financial Aid: Is determined by the information the student entered on the Free Application for Federal Student Aid (FAFSA), which determines if the student is eligible for the Federal Pell Grant and/or has an unmet need.

Review of Literature

In this dissertation in practice I examined the Mandan Hidatsa Arikara (MHA) Nation Education Grant Program, a tribal higher education program, and whether or not the assistance

provided contributes to student success. Starting with Rong Chen's (2011) theoretical framework, "Institutional Characteristics and College Student Dropout Risks: A Multilevel Event History Analysis," I explored student success metrics to include persistence, retention, and degree completion for American Indian students. In addition, I examined how supportive solutions have assisted American Indian students in their transition from high school to college.

The target population is American Indian students who are enrolled in a federally recognized tribe and have identified themselves as American Indian in their completion of the Free Application for Federal Student Aid (FAFSA). According to the U.S. Department of Education's National Center for Education Statistics (NCES) (2020), the definition of American Indian or Alaska Native is a person having origins in any of the original peoples of North and South America (including Central America) who maintains cultural identification through tribal affiliation or community attachment. My investigation further defined student success metrics at varying institutions and how those metrics assisted in American Indian students' success outcomes and potential factors that have contributed to students' decision to further their education.

The institutions explored are predominately White/mainstream institutions, Tribal colleges, and universities/minority-serving institutions. Primarily, the colleges are, at minimum, two-year and/or community and/or tribal colleges, where some of the tribal colleges offer bachelor's degrees. My research reviews student success metrics as they pertain to American Indian students, pursuing their higher education.

Theoretical Framework

Much can be said about the factors that contribute to student retention, persistence, and degree completion in higher education. Chen's theoretical framework, which includes student-

level variables such as educational background, enrollment, student financial aid, student persistence and success, and campus integration—outlines the barriers American Indian students encounter while obtaining their education (Chen, 2012). Additionally, Chen’s (2012) theoretical framework concluded that the percentage of minority students in an institution is positively associated with dropout rate. This framework assisted in identifying the barriers and persistence factors.

Many underserved minorities develop persistence and encounter barriers to their success. A qualitative study conducted by Guillory and Wolverton (2008) identified persistence factors and barriers perceived by American Indian students and administrators/faculty across three land grant colleges. The main persistence factors identified by students were family, giving back to their tribal community, and on-campus support. Whereas persistence factors recognized by administrators/faculty were the lack of financial resources and academic programs. Hunt and Harrington (2010) went on to identify key factors in the persistence of American Indian students, which include family support, faculty and staff support, institutional support, personal commitment, and relation to homeland and culture. Even when students receive these supports while going to school, they are still the lowest minority group in education attainment.

American Indians, compared to all other racial minorities, have achieved the lowest educational levels. They comprise only 1.1 percent of total postsecondary enrollment with approximately 1.3 percent enrolled in community colleges with retention being reported as a mere 15% (Mendez et al., 2011). For American Indian/Alaska Native students, the six-year graduation rate for first-time, full-time undergraduate students who began their pursuit of a bachelor’s degree at a 4-year, degree-granting institution in fall 2010 was only 39% (U.S. Department of Education, 2019a). Only 8.6% of American Indians, age 25 or older, hold a

college degree (U.S. Department of Education, 2019a). As alarming as the aforementioned statistics are, American Indians face barriers before they even get to college.

Major disparities in retention, persistence, and graduation rates exist for American Indian students in higher education. American Indian students who choose to obtain their higher education may face different obstacles than their minority counterparts for many reasons. Most American Indian students who attend a two-year or tribal college cannot be defined as traditional students because many are over the age of 24, single parents or responsible for other dependents, work full-time/part-time or on a fixed income, attend college part-time, commute, first-generation, or possess a combination of all these traits (Al-Asfour & Abraham, n.d.; Higher Learning Commission, 2018; Kimbark, et. al, 2016; Mendez et al., 2011). Post-traditional learners who are going to school, work, and have families represent as much as 60% of enrolled undergraduates (Higher Learning Commission, 2018). These traits already place American Indian students at a disadvantage before they even begin their college career. In addition, any students who come from the reservation are already faced with disparities, such as high unemployment and morbidity rates because of diabetes, drugs, alcohol, and suicides (Al-Asfour & Abraham, n.d.; Crosby, 2011).

In addition to demographic traits, external barriers also influence American Indian students. Students who are single parents face additional challenges of inconsistent childcare, transportation issues, and poverty (Al-Asfour & Abraham, n.d.; Higher Learning Commission, 2018). Many students enrolled at community and technical colleges are working adults, and their completion metrics are not as fruitful compared to first-year, full-time students enrolled at four-year institutions (Higher Learning Commission, 2018). These factors alone can put a severe strain on students, leaving them in situations that often force the students to choose between

getting an education or helping their family. In addition to disparities, barriers to retention and completion need to be addressed.

Barriers to Retention and Degree Completion

For some ethnic minorities, excelling at the college level can be difficult. American Indians, out of all the ethnic minorities striving to obtain a college education, are reported to be the least successful (Hunt & Harrington, 2010). There are many factors that may impede American Indian college students' ability to enroll and stay enrolled in school and graduate. These factors include: low number of high school graduates, academic preparedness/performance, funding/affordability, support of family, inclusion, campus support and engagement, and program choice and placement (Crosby, 2011; Guillory & Wolverton, 2008; Hunt & Harrington, 2018; Mendez et al., 2011). For many American Indian students, graduating from high school is a difficult feat, let alone overcoming the potential obstacles that follow graduation.

Lack of Academic Preparation

Lack of academic preparation, particularly the transition from high school to college, is the first of many obstacles that American Indian students must endure. Only 51 out of every 100 American Indian high school students graduate from high school, and only 37 of those 51 high school graduates enroll in college and obtain a bachelor's degree within six years (Mendez et al., 2011). Those statistics are concerning and reflect the first barrier to higher education that should be addressed by institutions for American Indian students.

Institutions that have open admission policies may face retention issues for students who are academically unprepared for college. For American Indian students, this policy creates another obstacle as some students may have to take additional courses to prepare them for

college, which can affect retention and persistence rates (Al-Asfour & Abraham, n.d.). Although taking remedial courses may better prepare American Indian students for college, it can ultimately affect their persistence because it adds time to their degree completion. According to Crosby (2011), previous academic performance predicts future academic achievement. One's high school GPA and rank is a predictor of non-White college for American Indian students. Based on high school graduation rates, the number of American Indian students entering higher education is extremely low. For those students who choose to pursue their higher education, making the transition from high school to college is met with its own set of challenges.

Transition from High School to College

Most American Indian students are first-generation. With that status, they have a difficult time navigating the cultural and social capitals related to higher education, such as the college application process and the Free Application for Federal Student Aid (FAFSA) (Mendez et al., 2011; Mendoza et al., 2009). Because of their first-generation status, students and their families often find it perplexing to complete the enrollment process without assistance. It is especially difficult for those families who may not file taxes and are often living below the poverty line. The awareness and knowledge pertaining to different funding sources can seem overwhelming and create another set of challenges for students wishing to pursue their higher education.

Lack of Funding

The financial aid process is a challenge for most American Indian students and their families. One in every four American Indians live below the poverty line, which accounts for 21.2 percent of the Native population (Mendez et al., 2011). For most low-income populations, financial aid is usually the sole reason why students can pursue their higher education (Mendoza et al., 2009). Throughout the years, there has been a significant change in funding for college

students, shifting from grants to student loans. In effect, this swing has continued to expand the gap in obtaining a higher education for low income students (Chen & DesJardins, 2008). Chen and DesJardins further state that while grant aid increased by 86%, student loan borrowing rose by 130%. For high income students, the cost of a higher education has remained constant at approximately 10%; however, for low income families this cost accounts for 41% to 47% of their income. In effect, many students often struggle to find the funding sources needed to pay for their cost of attendance, which can add additional strain on their families and finances.

Securing enough funding has its own set of challenges for American Indian students. Financial hardship is among the top difficulties that hinders success in college for American Indian students (Crosby, 2011; Mendez et al., 2011). When American Indian students were asked about what contributed to their success, the students mentioned much needed scholarships. In other words, financial aid is important in the role of promoting success for college-bound American Indians. Additionally, financial aid means allowing students to solely focus on their studies rather than worry about paying for their education and living expenses. Funded students realize higher GPA's and degree completion. Although federal student aid is pertinent in funding one's education, it is not always enough.

Most American Indian students are eligible for federal student aid. According to the National Center for Educational Statistics, 87% of American Indian/Alaskan Native students received grant aid in 2015-2016 (U.S. Department of Education, 2019b). Chen (2012) suggests that underserved minorities tend to have lower dropout rates when given higher financial aid packages. Chen and DesJardins (2008) also point out that although most low-income students are eligible for Federal Pell Grants to assist in paying for their educational costs, the purchasing power has decreased and may potentially affect student persistence. Even when a student

receives a Pell Grant, it still is not enough to cover additional living expenses while the student is going to school. Although funding is a major barrier for students, they face many other obstacles in obtaining their education.

Socialization (Isolation/Prejudice)

In addition to funding, some students have trouble adjusting to college life. According to Al-Asfour and Abraham (n.d.), most traditional American Indian students who attend college off the reservation, have trouble with the transition to college. American Indian students may experience increased feelings of isolation and perceived hostility, which contributes to low performance. In addition, feelings of being torn between their Native culture and the campus culture, especially when leaving ties to their family and ancestral lands behind them, also contributes to low performance (Crosby, 2011; Mendez et al., 2011). These feelings can be predictors of low campus engagement (Crosby, 2011). In other words, if students believe they do not belong, they are less likely to become involved and fail to integrate into the campus culture.

These beliefs coincide with Scholssberg's theory on marginality and mattering (DeLong et al., 2016). According to DeLong et al. (2016), the theory helps to explain students' feeling of marginality when change occurs, such as moving away to attend college, and are unable to develop connections. This disconnect can cause students to believe they do not matter; they end up failing in their studies and return home.

Students struggle with more than just paying for the cost of attendance. They have issues with childcare, financial aid, and transferability of programs (Higher Learning Commission, 2018). Students who attend community colleges often commute, lack academic preparation, attend part-time, are older than average, have a family to support, are on a limited income, and may be first-generation (Kimbark, et. al, 2016). Although free tuition may help

lessen the burden of the cost of attendance, students still must contend with these barriers to obtain a college degree. Proponents and opponents each offer their own perspectives.

Proponents

Proponents for free tuition present several arguments. Offering the first two years of college free would allow for more access to those first-generation, underserved minorities, and/or people who could not previously afford to go to college (Everett, 2015). Goldrick-Rab and Kelly (2016) state, “Tuition and fees are the price of access—living costs are the price of success” (p. 56). According to Goldrick-Rab and Kelly, attending one year of community college for dependent, low-income students costs an average of \$8,000. While more students are becoming eligible to receive Federal Pell Grants, the price of tuition and fees—after accounting for all grants and scholarships—is still rising. Even with student loans, these resources are not enough to cover cost of living and other necessities, allowing students to solely focus on their studies (Cubberley, 2015; Goldrick-Rab, 2016). Students are responsible for expenses that are not covered by their student aid package, such as books, room, board, transportation, and childcare (Cubberley, 2015; Goldrick-Rab & Kelly, 2016). Students have to find additional funding when their Pell Grant falls short in covering the total cost of attendance, and this shortfall usually results in students obtaining a student loan to supplement their grants. If the first two years of college were free, it would decrease the overall amount of student debt owed. Once the students have graduated, they would not end up with a huge amount of student debt, which would allow them to focus on other life challenges, such as buying a house.

Financial aid is a beneficial to students. According to Millea et al. (2018), it is beneficial not only for low-income students, but also for student retention and program completion rates, especially among freshman students. Often, financial aid in the form of grants and scholarships

increases a student's ability to graduate by about 9%, and student loans reduce the graduation rate by 19% for a subsidized loan. For students receiving an unsubsidized loan, their ability to graduate was reduced to 2.5%. When a student attends a community college for two years, the student will usually earn enough credits to attain an associate degree (Goldrick-Rab & Kelly, 2016). However, when a student attends a four-year institution for two years but lacks the financial resources, they often leave college without any degree (Goldrick-Rab & Kelly, 2016). Therefore, four-year colleges and universities should award an associate degree, as it would help towards student completion and create an automatic pathway for students to earn a bachelor's degree (Cubberley, 2015). Many schools have already followed suit and realized that it creates a smooth transition for students to further their education. Institutions have also found that they get a larger pool of applications. In other words, if community colleges and universities worked together, whether in a seamless transfer process or by offering associate degrees at the university level, it would mean increased enrollment and completion rates.

In addition to increased access and completion rates, offering free tuition would also decrease unemployment rates. According to Goldrick-Rab and Kelly (2016), the unemployment rate for those with an associate degree is 25% lower than those without a degree and they make significantly more money than those without any college. Cubberley (2015) asserts that even if a student receives a certificate in a high demand/high paying field, that can help to transition the student into an associate degree program that further boosts their earning potential. And many employers offer tuition assistance as part of a benefits package.

According to Berry and Stanley (2014), over the course of a lifetime a high school graduate will earn on average \$1.2 million. Someone with a bachelor's degree will earn \$2.1 million throughout their lifetime; and, someone with a master's degree will earn \$2.5 million

over the course of their life. The unemployment rate is also lower at 3.8% for those 25 years and older with a bachelor's degree compared to 7.4% for the total population (Berry & Stanley, 2014). Therefore, if a student earns at minimum an associate degree, the earning potential is much greater than that of someone who did not attend college. They are more likely to continue their education and their earning potential would likely continue to increase.

Free tuition programs would do more than just assist students with paying for college. Direct funding would give federal policymakers more power to control the quality of public colleges through regulations and accountability requirements (Goldrick-Rab & Kelly, 2016). Participating institutions would have to adhere to federal mandates and reforms. If the federal government offered the first two years of college free, it would form a relationship with the states, which would allow for increased accountability and a review of budgets to ensure that the state is spending appropriately and adequately. In other words, both the state and federal governments would need to work together to ensure that the institutions are spending the money wisely on budgets items, such as faculty positions instead of a new modern athletic complex. However, opponents of free tuition programs have their own views.

Opponents

Opponents offer differing viewpoints. Opponents state that college is already free for low-income students and that offering the first two years of college would not make a difference for most low-income students (Goldrick-Rab & Kelly, 2016). If a student's family makes under \$65,000, the student attending community college receives enough aid to cover the total cost of their education with \$3,100 left over to cover their additional expenses. For the middle and upper classes, offering free college would create an entitlement because normally these families would have the means to pay in place of a free tuition plan. In other words, opponents believe that low-

income students receive enough financial aid to cover their education expenses. However, offering free tuition would also put more financial pressure on the federal and state governments.

Opponents believe that offering free tuition will not change the fact that many students lack college readiness. According to Goldrick-Rab and Kelly (2016), 68% of college students need to enroll in at least one preparatory course with the average student enrolling in 2.9 prep courses. Opponents believe that even if the costs of tuition and all other student expenses are taken into account, it still does not change the fact that many students are not prepared to go to college, which results in lower student success rates. Therefore, when students go to college unprepared and need to take remedial courses, it increases the amount of time it takes to complete a degree, if the student finished college at all.

Opponents fear the quality of education and services may decline because of increased financial responsibilities put on institutions. Since state appropriations have been on the decline and the federal government's financial aid program has not kept pace to help with the funding shortfall, public institutions have had to increase tuition and fees to cover the deficit (Phelan, 2014; Reed & Szymanski, 2004). An institution's revenue streams can also differ within the states, based on the differing property values and tax levies as well as varying degrees of support by local residents. At the same time, there is still pressure at the federal and state levels to increase student access, retention, and completion rates, all while having to manage with less funding sources (Phelan, 2014).

Funding streams vary from one institution to the next and are based on several factors. Fiscal and political pressures from federal and state governments as well as funding incentives and new performance indicators have caused inconsistencies in funding. Initiatives, such as Obama's American Recovery and Reinvestment Act, allocated \$2 billion over four years to

community colleges that revamped and expanded their programming (Goldrick-Rab & Kelly, 2016). However, after three years, colleges were left trying to determine how to pay for the new programming, facilities, and administrative costs once the initiative ended. As a result, colleges had to tighten their budgets by reducing services and staff. Phelan (2014) states, “this type of revenue unpredictability, by definition, makes it very difficult for college leaders, boards, and system administrators to have any level of long-term confidence in budget development” (p.8). In other words, college leadership will need to rethink their current business model, and programs and services offered. In addition to proponents’ and opponents’ viewpoints, student success is another factor to be considered.

Student Success

For purposes of this study, student success is academic achievement as measured by the first-year grade point average and retention from year one to year two of study at the same institution. According to the Higher Learning Commission (2018), students view success differently, whether it is going to class daily or being able to financially support themselves and their families. A qualitative study conducted by Guillory and Wolverson (2008) identified persistence factors and barriers perceived by American Indian students and administrators/faculty across three land grant colleges. The main persistence factors identified by students were family, giving back to their tribal community, and on-campus support; whereas persistence factors recognized by administrators/faculty were the lack of financial resources and academic programs. Administration/faculty also identified inadequate financial resources and lack of preparedness as key barriers to degree completion. The American Indian students identified their barriers to completion as family, being a single parent, lack of preparedness, and

inadequate financial resources. There is a clear disconnect between whom higher education intends to serve versus whom institutions of higher education are truly serving.

For some ethnic minorities, excelling at the college level can be difficult. American Indians, out of all the ethnic minorities striving to obtain a college education, are reported to be the least successful (Hunt & Harrington, 2010). According to Hunt and Harrington (2008), the tribal college movement is credited for being the most significant development in recruiting, retaining, and graduating American Indians at all levels. There are many reasons to explain the low numbers of American Indians in college: low number of high school graduates, lack of support and/or student relations from institution attending, stereotyping and misunderstandings from faculty, and the choice of vocational careers and academic majors, based on earning potential (Guillory & Wolverton, 2008; Hunt & Harrington, 2010). Also, many studies that identify barriers to retention and timely graduation include the following obstacles: lack of academic preparation, undefined or unclear academic or vocational goals, lack of funding, inconsistent transition between high school and college, prejudice, and social isolation (Hunt & Harrington, 2010). However, Hunt and Harrington (2010) identify key factors in the persistence of American Indian students, which include family support, faculty and staff support, institutional support, personal commitment, and relation to homeland and culture. Even with free tuition retention, placement, and completion metrics are low.

Free Tuition Models Currently in Use

Student debt is at an all-time high and climbing. To curtail this crisis, states are attempting to put their plans into action. At least 13 states have designed their last-dollar scholarship program and have introduced them into legislation (Perna et al., 2018). These programs pay the remaining balance of tuition and fees after state and federal financial aid has

been exhausted. I will review the last-dollar programs of Tennessee, Oregon, and New York because their programs are the most recent and there is a paucity of literature on this topic.

Tennessee

Tennessee has created a program to help the students of their state. Tennessee's last-dollar program was signed into law in June, 2014 by Governor Bill Haslam and was an effort to achieve Tennessee's initiative Drive to 55, where 55 percent of the state's adults have at least a certificate or associate's degree by 2025 (Perna et al., 2018). The scholarship program covers the cost of tuition and fees not already covered by the Pell Grant and other state-funded initiatives, such as the Tennessee HOPE Scholarship or the Tennessee Student Assistance Award from a Tennessee High School. Students are required to register for the program by November 1st of their high school senior year, file the Free Application for Federal Student Aid (FAFSA), complete service in the community for eight hours, and attend two mandatory meetings. Under this program, students can receive up to five semesters of attendance at any one of Tennessee's community college or colleges of applied technology. Students must maintain a minimum 2.0 GPA, file the FAFSA before the deadline, and complete eight hours of community service each semester in order to renew the scholarship (Perna et al., 2018). A small amount of effort could possibly have a meaningful impact not only for students, but also for the state.

Although it is still early, data, regarding the effectiveness of the program, have already begun (Perna et al., 2018). First, FAFSA filings for the state rose 60% in 2014 and then to 70% in 2016. Enrollment for first-time college students at community colleges rose to 25%, and at technical colleges, it rose 20% from fall 2014 to fall 2015. However, enrollment declined from 5% to 8% at Tennessee's public 4-year colleges. Retention also improved whereas roughly 80% of students in the program during the fall 2015 semester cohort re-enrolled in the spring 2016

semester, and 63% re-enrolled in the fall 2016 semester (Patton, 2016; Perna et al., 2018). The average disbursement for the first cohort under this program was \$850. Retention was higher for students participating in the program than for those not participating in the program (Perna et al., 2018). Although the first pieces of data seem to be promising, time will tell if the data reveals a mostly positive impact.

Oregon

The Oregon Promise, formally known as Senate Bill 81, was passed in July 2015 and implemented in fall 2016 (Perna et al., 2018). Like Tennessee, Oregon has an education attainment goal, known as the 40:40:20 goal. By 2025, Oregon would like 40% of its adults to have at least a bachelor's degree, 40% to obtain an associate degree or post-secondary qualification, and 20% to have a high school diploma. Under this last dollar program, students can take up to 90 credits, tuition free at any of Oregon's community colleges. In order to qualify for the program, participants must meet the following requirements: 1) be a state resident for one year prior to community college enrollment, 2) graduate from an Oregon high school with a 2.5 cumulative GPA or with passing scores on the GED exam, 3) file the FAFSA, and 4) initially enroll in the program six months after graduation or passing the GED exam. To stay in the program, students must enroll with a minimum of six credits per quarter, be enrolled 3-4 quarters per academic year, maintain a 2.0 GPA, complete a first-year experience course, and pay \$50 per term in fees (Perna et al., 2018). This plan is more generous than others, as it allows students to take 30 credits over the average associate's degree, which may be used in remedial courses to transition into a bachelor's program.

Some of the early effects of the Oregon Promise program have been beneficial since its inception. From fall 2015 to fall 2016, FAFSA filings rose 114% (Perna et al., 2018). However,

the impact on college enrollment is minimal. Two years prior to 2016, only 16.3% of public high school graduates were enrolled for a minimum of six credits at Oregon's community colleges. In the fall 2016, 18.5% of public high school students were participating in the Oregon Promise program, and the average disbursement under this program was \$653. Like the Tennessee last-dollar program, enrollment at Oregon's four-year public institutions declined, too, but this decline is attributed to the increase in the community college enrollment. The results thus far do not appear as promising, as access has not had the impact as one thought it should.

New York

New York state adopted a similar last-dollar program. In 2017, New York announced the New York Excelsior Scholarship (Perna et al., 2018). Under this scholarship program, full-time students may receive an award of up to \$5,500 per year. This program is limited to families with incomes under \$100,000 in 2017, under \$110,000 in 2018, and under \$125,000 in 2019. Students receiving the scholarship must live in New York. After graduation, they must work in New York for as many years as they received the scholarship, or the grant will convert into an interest-free loan. The students can use this scholarship at any two-year or four-year public college or university in New York. Students, seeking an associate degree, can receive two years of funding, and students obtaining a bachelor's degree, may receive funding for four to five years, depending on the program. Students with an associate degree who enroll in a bachelor's degree without delay, are eligible. However, students who have already obtained a bachelor's degree are not able to participate. Also, students must earn 30 credits per academic year and must be enrolled full-time; otherwise, they become ineligible for the program. Whether the program is effective remains to be seen.

United Tribes Technical College in Bismarck, North Dakota

In addition to the above-mentioned states, some tribal colleges have also moved to the tuition-free platform. North Dakota's United Tribes Technical College (UTTC) started their American Indian Tuition Waiver program in the fall 2016 after ending their participation in the federal student loan program (Neumann, 2017). The tuition waiver covers the full cost of tuition but does not include fees, books, room, board, or other expenses. After the first year, enrollment at UTTC rose by 22% and the completion of the Free Application for Federal Student Aid (FAFSA) rose by 58%. FAFSA applications submitted for the next academic year (2017) were already up by 189% compared to the previous year. Although final numbers were not available, administrators at UTTC say that the tuition waiver has had a positive impact on academic performance and that GPAs, retention, and completion for students receiving the waiver have been increasing compared to their counterparts who have not received the waiver. In order to receive the tuition waiver, students must be a member of a federally recognized tribe, a full-time degree-seeking student, and complete their admissions application and FAFSA by the deadline of the semester in which they wish to enroll. To continue in the program, students must maintain satisfactory academic progress each semester and enroll for classes as a full-time degree-seeking student for the following semester as well as complete the FAFSA every year (Neumann, 2017). Although the American Indian Tuition Waiver program has generated some promising results, it is unknown whether this program is sustainable.

Rationale

Both sides of the argument, for and against, free tuition make valid points. The proponents of free tuition have a more appealing argument because of the existing student debt crisis. Free tuition may also bring about more college awareness and access to those students

who may not have known or attended in the past. However, offering free tuition does not address the other costs and barriers associated with going to college and the living expenses needed to be able to focus solely on school. Even with free college tuition, persistence and completion metrics from an institutional standpoint need to be addressed—that discussion starts with knowing persistence factors and potential barriers that students face to best serve them. It is up to each individual institution on how best to address these issues, whether it is through policy changes or programming provided for students to be successful. For states taking the initiative to help students obtain a higher education, it is too early to tell if the programs they have implemented have lasting positive impacts. It is also unclear how a free tuition plan, provided by the federal government, would be funded, as there are many speculations and inconsistencies.

One issue that was not discussed in the three programs reviewed in my study was that there was no policy addressing older than average students as most of the plans targeted students who had just graduated from high school. Also, the research did not discuss measures that help students who have already graduated and who were already carrying substantial student loan debt. Although there are many good points to each side, clearly there are gaps in the research, and it is too early to tell if the programs implemented will be effective long term or the possible implications to the institutions and the states.

Current theoretical applications and practical approaches, as reviewed in existing literature, outline the issues of diversity and inclusion, relating to the student debt crisis, persistence factors, and barriers to obtaining a higher education. American Indians, more than any other minority, are the least represented in institutions of higher education. Although one source is dated 2004, all other scholarly literature is relatively current (2008-2019) and it provides an accurate picture of the issues that American Indian students face when pursuing their

college degrees. However, the data in how free tuition contributes to student success needs to be addressed through future research.

Conclusion

The student debt crisis is not disappearing anytime soon. Both sides of the issue have good points and offering free tuition to students would be beneficial for all students. However, free tuition is not the only contributing factor to student success. Student access, retention, and completion should be considered because every student is unique and has his or her own set of hurdles to encounter. It is too early to say whether the current plans in place will effectively help students be successful. The literature concludes that American Indian students face many barriers in obtaining a higher education. And often those barriers start before or during the transition to college, which can be frustrating for students. However, there are supportive solutions that can contribute to the overall success of American Indian students.

ARTIFACT II: INQUIRY APPROACH

Overview

Among other barriers to college success, the rising costs of college attendance and the diminishing availability of viable funding sources are causing students to incur too much debt in order to pursue postsecondary education. These trends vary by student demographics, specifically for those from different racial/ethnic and socio-economic backgrounds. The review of the literature in the opening chapter of this research provided more detailed information on most commonly known obstacles and challenges that students face, with a special attention to American Indian students (Adelman et al., 2013). Adelman et al. (2013) convey a compelling argument that even the limited data make it clear that disparities in American Indians' achievement and persistence exist. Even more problematic issues about student success remain to be researched. Studies about American Indian student experiences and, most importantly, their success rates in higher education is limited, partly because of exclusion from large quantitative studies. Findings about the effects of federal and state funding programs about persistence or academic achievement of American Indian students are also scarce (Lopez, 2018; Mendez et al., 2011). Therefore, the purpose of this dissertation is to advance the scholarly literature about American Indian student populations.

Purpose

This investigation examines how tribal education programs, such as MHA Education Grant Program, contributed to a successful transition between high school and college for the enrolled members. Successful transitions are considered those from high schools to higher

education institutions, such as four-year, two-year, community, and tribal colleges. For this study I focused specifically on American Indian students who were enrolled members of the Mandan, Hidatsa, Arikara Nation (MHA) and participants of the MHA Education Pathways Program in North Dakota. I used a quantitative method to examine possible associations of the select pre-college and in-college characteristics with two college success outcomes, such as academic achievement and retention during the first year of higher education. The data source came from 100 student applications for the MHA Education Pathways Program, which were reviewed and synthesized to compile a dataset for the analysis. While originally several variables were of a particular interest for this study—such as high school grade point average, on/off reservation high schools/GED, first-generation, Pell Grant eligibility, institution type to which a student transitioned, college major, college first-year grade point average, and retention from first to second year of college—not all variables were available as a record or proxy measure in the students' applications. Regardless, the dataset provided enough information to initially understand the sample of MHA students and their success rates vis-à-vis the current national trends in the institutions of higher education and other literature.

Significance

The rising college costs of attendance and the diminishing availability of viable funding sources cause students to incur too much debt in order to pursue their post-secondary education. Whether tuition-free education or substantial funding contributes to the higher success rates in higher education is an important area of research. But because of the limited education pathway and success data on American Indian students, comparisons between funded and not-funded students can be problematic (Adelman et al., 2013). However, nuanced research with a smaller sample of those who are fully funded through a scholarship or funding program may shed light

on whether success rates are low, high, or higher vis-à-vis the reported national trends for this sub-population of students who pursue a cost-free higher education. Therefore, significance of this dissertation in practice is to add findings to the limited pool of literature about college success rates of MHA students who were funded by the MHA Education Grant Program. Additionally, this inquiry aims to understand whether select pre-college student characteristics and in-college student factors showed additional relationships with the first-year GPA and retention for the students who were fully funded to follow their higher education aspirations. The following questions are examined.

Research Questions

Three research questions guided this study:

- 1) What are the observed success outcomes of the MHA Education Grant Program participants?
- 2) Do pre-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two? Do in-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two?
- 3) What student (pre-college and in-college) characteristics predict the success outcomes such as the first-year GPA and retention?

By addressing these research questions, the prevailing literature will be explored.

Inquiry Approach

This quantitative study was exploratory in nature within a specific context of a funding program and tribal affiliations. In the following sections, I provide detail about the MHA

Education Pathways Program and describe the research approach where I manually compiled a data set, and identified the variables of interest that were measurable and available for testing on the two college success outcomes. The limitations of the data are also discussed.

Context

The Mandan Hidatsa Arikara Nation (MHA Nation), also known as the Three Affiliated Tribes (TAT), is located on the Fort Berthold Reservation in North Dakota. The reservation is roughly 988,000 acres and is comprised of six segments. There are currently 16,630 enrolled members nationwide, and they own almost 458,000 acres of the total 988,000 acres of the reservation. Of the total enrolled members 5,469 are between 0 and 17 years of age, 9,647 are between 18 and 59 years of age, and 1,521 are 60 years and older. The tribal headquarters is in New Town, North Dakota and currently employs more than 1,100 enrolled members. This number is continually increasing because of the constant building and improving of infrastructure and services provided to the enrolled members, on and off the reservation (MHA Nation, 2020).

The Tribal Council is chaired by Mark N. Fox. He became the Tribal Chairman in 2014 and is currently serving his second term. He is a veteran of the United States Marine Corps. Prior to becoming Chairman of TAT, he earned his law degree from the University of North Dakota in 1993 and was practicing law. Chairman Fox has worked diligently to improve the life of the tribal members, focusing on education and addiction services (MHA Nation, 2020). In my opinion, these changes are evident through the MHA Education programs established for Tribal members.

While campaigning for office in 2013, part of Chairman Fox's platform was to provide the tribal members more funding opportunities to pursue higher education. Thus, the Education

Grant Program, formally known as the Chairman’s Grant, was developed (MHA Nation, 2020).

The goal of the Education Grant Program is to help students pay for college, which allows them to solely focus on their studies rather than to worry about how they will pay for the costs associated with obtaining their education. At its inception, the Education Grant provided to students up to \$3,500 per semester regardless of chosen program, which is based on enrollment status (full-time or part-time), a minimum grade point average of 2.0, and unmet financial need, based on the Free Application for Federal Student Aid (FAFSA) (MHA Nation, 2020).

Under the direction of the Project Coordinator for Education and Development for the MHA Nation, the Education Grant Program has now increased the amount it gives students to \$4,500 per semester. The MHA Education Grant Program provided the context and opportunity to study American Indians’ college success rates to further determine if funding was the only barrier to student success outcomes (as documented in the literature) or if there were other pre-college and in-college variables to consider in student success (MHA Nation, 2020).

The MHA Education Pathways Program has an established mentor model that provides academic support services to MHA Nation tribal members who are pursuing higher education and vocational education in North Dakota and nationwide. This model was designed to address educational barriers, individual student needs—including academic, financial, and personal advisement—and provides culturally sensitive support services. This holistic approach includes a strong focus on the experiences of the student within the social and academic systems (MHA Nation, 2020).

Data Source and Variable Specifications

The MHA Education Pathways Program, College Student Information Form is completed when students sign up to participate in the program. The form collects information that includes

the following: name, voting segment, address, phone numbers, email address, year in college, college where enrolled, program of study, enrollment status (full-time or part-time), method of instruction (residential, online, or both), assistance needed, completion of high school diploma or GED, last high school attended, and other colleges attended (See Appendix A) (MHA Nation, 2020).

The financial needs analysis form comes from the MHA Education Grant, and the form is completed every semester by the financial aid office from the institution where the student is enrolled. The form collects information regarding Federal Pell Grant eligibility, unmet need, and family size, and is submitted to the program every semester along with the student's most current unofficial transcript. The Certificate of Indian Blood contains the students' birth dates. All of these documents are collected and put into the student file (MHA Nation, 2020).

My role, while employed by the program, was to collect this information on the student's behalf and ensure the student's file was complete. To be able to utilize these data and records, I gained the University of North Dakota's Institutional Review Board approval (IRB-202104-006) on July 22, 2021. In addition, I garnered an approval letter from the MHA Nation and additional stakeholders to conduct this research. I started collecting the data on July 1, 2021, using complete student files.

Table 1.*Variable Specifications.*

Variable	Definition	Measure
IV Student Success:	Student success measures are retained from	
(1) First-year retention	year one to year two of study at the same institution and academic achievement is measured by the first-year grade point average.	Binary 0,1 First-semester GPA Scale
(2) Academic Achievement		First-year GPA Scale
DV Characteristics:		Binary 1,2
Student Demographics	Gender	Categorical
	Age (18-24, 25-28, 29 and above)	Categorical
	Family Size	Categorical
	Voting Segment	Binary 0,1
	High School Diploma or GED	Binary 0,1
Pre-College Characteristics	High School On or Off the Reservation	Not Available
	High School GPA	Not Available
	First-Generation College Student	Binary 0,1
	Pell Grant Eligibility	Binary 0,1
	Unmet Need	Binary 0,1
In-College Characteristics	Institution Type (Tribal or Non-Tribal)	Binary 0,1
	Control Type (Public or Private)	Binary 0,1
	Geographical Location (Urban or Rural)	Categorical

Program or Major	Binary 0,1
Enrollment Status (Full/Part- time)	Binary 1,2
STEM or Non-STEM	

Several conceptual hypotheses were used to assume that select pre-college variables and the in-college variables would have positive or negative associations with the first-year outcomes. For example, academic achievement as measured by the first-year grade point average and retention from year one to year two of study at the same institution.

Inquiry Design

In this research I examined, using statistical methods, the success rate of students who were funded by the MHA Education Grant Program provided by the MHA Nation and determined if there was a correlation between select variables and student success outcomes. Secondary data were collected from existing student files, transcripts, and needs analysis forms of students who had participated or were currently participating in the MHA Education Pathways Program through the University of North Dakota. The program assisted these students with up to \$4,500 per semester based on their unmet need as long as the students met a satisfactory academic progress requirement. The funding was available for students, regardless of the degrees they were seeking. The data were compiled using an Excel spreadsheet and then transferred into SPSS Statistics, a statistical software used for analysis.

Population

The student participants were enrolled members of the MHA Nation and enrolled at an institution of post-secondary education. The sample size was exactly 100 participants. The data collected were deemed reliable as some of the information had been completed by the student

and other information was submitted on behalf of the student via an official or unofficial document from their high school and/or institution. The data were then coded for the variables, transferred to the SPSS Statistical research software, and analyzed to determine success trends and correlations between the variables and outcomes. Predictive analytics methods were used to determine if a set of variables could predict the first-year outcomes of the students who were fully funded in their pursuit of a higher education degree.

Sample

The majority of the sample was female at 62%. Family composition was another unique characteristic of the study sample in comparison to the traditional college-going population. The participants had families while pursuing their degrees. The minimum family size of the sample size is zero, and the maximum of the sample size is eight. The average family size is 2.33 with the standard deviation being 1.69 away from the mean. There are six segments that comprise the Mandan Hidatsa Arikara Reservation. The majority of the sample was from the reservation's North Segment at 30% and next was the West Segment at 19%. The smallest sample size of the voting segments was the Four Bears Segment at 6%. The majority of the sample population earned a high school diploma at 76%. Of the 100 participants, one-half of the students attended a high school on the reservation at 38.4%, while the other one-half attended high school off of the reservation at 38.4%. Data from students who earned the General Equivalency Degree (GED), 23.2%, was not applicable for this study.

The majority of the sample was Pell Grant eligible at 97%, and 98% of the sample had unmet need. The majority of the sample were not enrolled in STEM programs at 89%, although almost one-third of the student sample pursued degrees in sciences. Ninety-five percent of the

study participants attended an educational institution in an urban area, and 94% of the sample population attended a Tribal institution (Table 2).

Table 2.

Demographic Characteristics of Categorical Variables.

Independent Variables	number/100	percent
Gender	100/100	100%
Male	38/100	38%
Female	62/100	62%
Family Size	number/100	percent
0	2/100	2%
1	46/100	46%
2	15/100	15%
3	11/100	11%
4	15/100	15%
5	5/100	5%
6	4/100	4%
7	1/100	1%
8	1/100	1%
Voting Segment	100/100	100%
North	30/100	30%
South	10/100	10%
East	18/100	18%
West	19/100	19%
Lucky Mound	17/100	17%
Four Bears	6/100	6%
Obtained High School Diploma or GED	100/100	100%
Diploma	76/100	76%
GED	24/100	24%
Attended HS On or Off the Reservation or N/A	100/100	100%
On	38/100	38.4%
Off	38/100	38.4%
N/A	23/100	23.20%
Pell Eligibility	100/100	100%

Yes	97/100	97%
No	3/100	3%
Unmet Need	100/100	100%
Yes	98/100	98%
No	2/100	2%
Institution Type	100/100	100%
Urban	95/100	95%
Rural	5/100	5%
Tribal or Non-Tribal Institution	100/100	100%
Tribal	94/100	94%
Non-Tribal	6/100	6%
Program of Study		
Business	9/100	9%
Career & Technical Education (CTE)	22/100	22%
Liberal Arts	9/100	9%
Sciences	27/100	27%
Social Sciences	33/100	33%
STEM or Non-STEM Majors	100/100	100%
Yes	11/100	11%
No	89/100	89%
Retention from Year One to Year Two	100/100	100%
Yes	95/100	95%
No	5/100	5%

Table 3 shows that the minimum age of the sample size is 19 years old, and the maximum age of the sample size is 55 years old. The mean of the age is 31.11 with the standard deviation being 7.55 away from the mean. The minimum first semester GPA of the sample size is zero, and the maximum first semester GPA of the sample size is 4.0. The mean of the first semester GPA is 3.19 with the standard deviation being 0.79 away from the mean. The minimum first year GPA

of the sample size is zero, and the maximum first year GPA of the sample size is 4.0. The mean of the first year GPA is 3.08 with the standard deviation being 0.97 away from the mean.

Table 3.

Descriptive Statistics of Continuous Variables.

Continuous Variables	Number	Minimum	Maximum	Mean	Standard Deviation	Skewness	Kurtosis
First Semester GPA	100	0	4	3.19	0.79	-1.16	1.59
First Year GPA	100	0	4	3.08	0.97	-1.71	3.06
Age	100	19	55	31.11	7.55	0.37	-0.32

Tables 2 and 3 highlight that the sample was predominantly female and non-traditional with a demonstrated financial need. The sample population was attending Tribal colleges and performing academically at the higher success rates (as measured by retention and both GPA). Because of the lack of variance in retention outcomes, this metric was no longer tested as an outcome variable. Only first-year GPA was included in the analysis of associations with the pre-college and in-college student characteristics (See Table 2 and Table 3). The research questions were modified accordingly.

Data Analysis of Research Questions

Below are the revised research questions. Given that some of the data were not available because of the data set and student records being incomplete, some of the variables were not available for study.

1. What are the observed success outcomes of the MHA Education Grant Program participants?
2. Do pre-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two?

Do in-college characteristics of the MHA Education Grant Program participants differ on the success outcomes, such as the first year GPA and retention from year one to year two?

3. What student (pre-college and in-college) characteristics predict the success outcomes such as the first-year GPA and retention?

Several statistical methods were used to answer these questions. For RQ1, simple descriptive statistics of the initial two outcome variables were helpful to understand whether the student sample performed low, high, or higher on their GPA and retention when compared with the national trends. For RQ2, T-Tests and ANOVA tests were helpful to understand whether or not there was difference of influence on the independent variables by pre-college and in-college characteristics. For RQ3, Linear regression analysis was used to predict the outcome variable of academic achievement as measured by GPA. Linear regression specified the probability how each student fell into the categories of the dependent variables, based on the influence from the independent variables. The probabilities ranged from 0 to 1, with a .5 cut off. The GPA categorization was 0 to .5 = GPA 1.9 and below and .5 to 1 = GPA 2.0 and above. The independent variables of diploma or GED and STEM or non-STEM were used in linear regression. For diploma or GED, 0 = diploma and 1 = GED and for STEM or non-STEM, 0 = no and 1 = yes.

Limitations

Several limitations need to be acknowledged regarding this study. First, the data set had missing variables—the ones that were originally intended for the full model to test—because of the nature of the MHA application process and the incomplete records themselves. Students do not always answer some of the questions in the applications. Thus, the model of success was reduced to only those variables that were accurately recorded and available. This limitation also

affected the sample size of the study as only those participants who completed their applications could be included in the study. Second, the majority of the students in the sample size were enrolled full-time at United Tribes Technical College (UTTC), located in Bismarck, North Dakota. UTTC is an urban, private, Tribal college. In addition, the majority of the sample population was Pell Grant eligible and also had an unmet need. Therefore, there was not any methodological feasibility in using these variables to determine difference between funded and non-funded success rates, as originally planned. Third, national or state data sets for the American Indian college students, who are funded through their Tribes and other sources, remain to be a challenge that researchers face, which complicates any project that relies on the statistical analysis.

Findings

This section is organized by the three research questions. Each section, such as success rates, associations, and predictions, presented the results of the statistical analysis.

Success Rates of Students from the MHA Education Grant Program

To determine the success rate of students funded by the MHA Education Grant Program, I examined GPAs for the first semester, the first year, and whether or not students were retained from year one to year two. The GPAs for first semester and first year were higher than the minimum average GPA of 2.0, which is required for satisfactory academic progress. The mean first semester GPA was 3.19, and the mean first year GPA was 3.08. Ninety-five percent of the population sampled were retained from year one to year two at the same institution (See Table 2 and Table 3).

Pre- and In-College Characteristics and the First-Year GPA

Several relationships were tested and summarized in Table 4 and Table 5. First, there is a significant difference in first year GPA ($t(98)=2.149$, $p<.05$, $p=.034$) between participants who earned a high school diploma ($M=3.20$, $SD=.848$), compared to the participants who earned a GED ($M=2.72$, $SD=1.23$). There is also a significant difference in first year GPA ($t(26.939)=-2.892$, $p<.05$, $p=.007$) between STEM ($M=3.51$, $SD=.426$) and non-STEM majors ($M=3.03$, $SD=1.00$). However, there is no evidence of difference in first year GPA between women and men ($t(98)=-.979$, $p>.05$ (Table 4 and Table 5).

According to the population studied, there is no evidence of difference ($F(2,96)=2.522$, $p=.086$) in first year GPA between participants attending high school on or off the reservation, including N/A for those students who earned a GED instead of a high school diploma. However, the model approached significance ($p=.086$) such that those participants who attended high school on the reservation and those participants who were non-applicable because of earning a GED; the difference in the means ($M=.552$, $SE=.253$) approached significance ($p=.079$). There is no evidence of difference ($F(5,94)=.577$, $p=.717$) in first year GPA between family size groups or any difference ($F(5,94)=.365$, $p=.872$) in first year GPA between voting segments. Nor is there evidence of difference ($F(4,95)=2.170$, $p=.078$) in first year GPA between the programs of study groups (Table 5).

In addition, there is no evidence of linear association ($F(1,98)=.758$, $p=.386$) between first year GPA and age. ANOVA tests were conducted on family size, voting segment, attending high school on or off the reservation or not applicable because of earning a GED, and program of

study. According to the population from which the sample was taken, there is no evidence of difference for any of the aforementioned variables in relation to first year GPA (See Table 6).

Table 4.

Group Statistics for T-tests.

Variable	Number	Mean	Standard Deviation	Standard Error Mean
Gender				
Male	38	2.9638	1.060832	0.17209
Female	62	3.1591	0.90624	0.11509
Obtained High School Diploma or GED				
Diploma	76	3.1996	0.84813	0.09729
GED	24	2.7258	1.22504	0.25006
STEM Or Non-STEM Majors				
Non-STEM	89	3.0318	1.003053	0.10632
STEM Major	11	3.5143	0.426251	0.12852

Table 5.*T-tests for Independent Samples.*

		Levine's Test Equality of Variances				T-test for Equality of Means					
		F	Sig.	t	df	Significance		Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
Gender	Equal Variances Assumed	0.242	0.624	-0.979	98	0.165	0.33	-0.195222	0.199328	-0.5908	0.2003
	Equal Variance Not Assumed			-0.943	69.114	0.174	0.349	-0.195222	0.207029	-0.6082	0.2178
Obtained High School Diploma or GED	Equal Variances Assumed	2.621	0.109	2.149	98	0.017	0.034	0.478022	0.222466	0.03655	0.9195
	Equal Variance Not Assumed			1.782	30.277	0.042	0.085	0.478022	0.268319	-0.0697	1.0258
STEM or Non-STEM Majors	Equal Variances Assumed	4.132	0.045	-1.572	98	0.6	0.119	-0.482464	0.306882	-1.0915	0.1265
	Equal Variance Not Assumed			-2.892	26.939	0.004	0.007	-0.482464	0.166799	-0.8247	0.1402

Table 6.

ANOVA Tests for Family Size, Voting Segments, High School On or Off the Reservation, and Programs of Study.

Grade Point Average First Year					
	Sum of Squares	df	Mean Square	F	Sig.
Family Size					
Between Groups	2.76	5	0.552	0.577	0.717
Within Groups	89.874	94	0.956		
Total	92.634	94			
Voting Segments					
Between Groups	1.763	5	0.353	0.365	0.872
Within Groups	90.871	94	0.967		
Total	92.634	99			
High School On or Off the Reservation					
Between Groups	4.623	2	2.311	2.522	0.086
Within Groups	87.991	96	0.917		
Total	92.614	96			
Programs of Study					
Between Groups	7.755	4	1.939	2.17	0.078
Within Groups	84.879	95	0.893		
Total	92.634	99			

Predictors of the Success Outcomes

Regression analysis was conducted for age and first year GPA in which no evidence of prediction on GPA was found. These tests were insignificant in part because of the limitation of the small sample size. Additional linear regression was conducted, including HS Diploma/GED and STEM/non-STEM independent variables in the model, to find that the diploma status

remained significant ($B=0.462$, $p=.039$), and there was no evidence of difference using STEM as a predictor. The regression model concluded that 6.7% of the variation in first year GPA was explained by these two independent variables (Table 7 and Table 8).

Table 7.

Individual Linear Regressions.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Age	.088 ^a	0.008	-0.002	0.968498
STEM or Non-STEM	.157 ^a	0.025	0.015	0.960204
Diploma or GED	.212 ^a	0.045	0.035	0.950113

Table 8.

Linear Regression Model for STEM or non-STEM and Diploma or GED on First Year GPA.

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	2.684	0.194		13.809	<.001
STEM or Non-STEM	0.452	0.302	0.147	1.497	0.138
Diploma or GED	0.462	0.221	0.205	2.088	0.039

Interpretation of the Findings

The pre-college and in-college independent variables were tested against the dependent variables. Although significance was found in only two areas of the pre-college and in-college variables, the non-significant findings are important to note. The descriptive statistics also showed trends of higher success in retention and achievement for students funded by the program compared to those students who lack funding, which leads to thinking that when the financial barriers are removed for students, such as they were for the students participating in the MHA Education Pathways Program, students may undoubtedly be successful. Other pre-college and in-college characteristics of the study findings are discussed in connection to the literature.

Pre-College Characteristics

Pre-college characteristics were studied in how they relate to first year GPA and retention from year one to year two. According to Astin and Oseguera (2005), pre-college characteristics of the students and institutional characteristics can be useful in determining the likelihood of students' degree completion. In addition, individual characteristics—such as students' grades, ethnicity, and age—may also attribute to degree completion (Astin & Oseguera, 2005). The pre-college characteristics of students, such as high school experiences and prior academic success, influence their college choices, experiences, and chosen degree (Crisp et. al., 2009). Crisp et al. agree that a student's background and experiences that he or she may have in secondary education may be useful in determining the student's ability to be successful in college. For purposes of this study, standardized test scores and high school grade point averages were not included in the data. However, it has been found that standardized test scores may not be useful in predicting degree completion, according to Astin and Oseguera (2005). In fact, among non-white students, test scores and grades differed in their ability to predict retention (Astin &

Oseguera, 2005). Therefore, grades and standardized testing may not be an accurate measure in predicting student success in college.

For many American Indian students, graduating from high school presents its own set of challenges and attempting college may be even more difficult. Cheshire (1993) explains that although secondary education for American Indian students is improving, they were still not successful in school and had high dropout rates. In 2010, it was revealed that American Indian students are unprepared when they enter college, and even fewer start and complete a post-secondary degree. In addition, it was found that only 31% of American Indian students complete the requirements for high school graduation (Cheshire, 1993). These factors contribute to the reason why American Indian students do not move on to post-secondary education. Chambers et. al. (1993) goes on to discuss how college grade point average is not significantly associated with high school rank and used the example of an American Indian high school student who did well in high school was just as likely to struggle academically as was the American Indian high school student who was not successful, using the same measures.

Salazar (2016) points out that previous research studies have noted that students who have earned a GED, normally perform as well or better than students who have earned a high school diploma. However, a study conducted by Klein and Grise in 1988 compared success between GED recipients and high school graduates. In their study 10 of 28 respondents who were community college students in Florida, responded that the grade point average of their GED students was average, and the results found that GED students are able to do just as well as high school graduates in the community college setting (Salazar, 2016).

A study conducted by McElroy in 1990 at Kankakee Community College, found a statistical significance that GED recipients showed a slightly higher-grade point average than

high school diploma recipients. This finding is different than previous research conducted and showed that a significant difference did not exist between GED recipients and high school diploma recipients, including grade point average (Medina, 2014; Salazar, 2016).

In another study conducted by Ebert in 2002, it revealed a significant difference in the mean grade point average between GED recipients and high school diploma recipients. The mean grade point average of the GED recipients was 1.98, compared to the mean grade point average of the high school diploma recipients, which was 2.51 (Salazar, 2016). A study, conducted by Adams in 2011, confirmed Ebert's study conducted in 2002 (Salazar, 2016), which also found that high school diploma recipients had a higher mean grade point average compared to GED recipients (Medina, 2014).

This researcher's study shows there is a significant difference in first year GPA ($t(98)=2.149$, $p<.05$, $p=.034$) between participants who earned a high school diploma ($M=3.20$, $SD=.848$) compared to the participants who earned a GED ($M=2.72$, $SD=1.23$). Based on this study and the previous studies conducted, GED recipients are able to be successful in college, but they may have lower GPAs compared to high school diploma recipients. Significance was found between high school diploma recipients and GED recipients; the difference of GPA between those students attending on or off the reservation will be discussed.

According to the population from which the sample was taken, there is no significant difference ($F(2,96)=2.522$, $p=.086$) in first year GPA between participants attending high school on or off the reservation, including n/a. However, the model approached significance ($p=.086$), such that those participants who attended high school on the reservation and those participants who were non-applicable because of attaining their GED. There is no significant difference ($F(5,94)=.365$, $p=.872$) in first year GPA between voting segments. It can be assumed that

geographical location had no influence on first year GPA for American Indian students attending college.

In-College Characteristics

In-college characteristics were studied in how they relate to the first year GPA. Most of the population in this study reported that they had dependents when they were participating in the program, which may also contribute to their student success. Astin and Oseguera (2005) discuss how raising a family is a positive predictor of degree completion. According to the population from which the sample was taken, there is no significant difference ($F(5,94)=.577$, $p=.717$) in first year GPA between family size groups.

The majority population in this study attended a small, urban Tribal college, which may have an influence toward degree completion, according to Astin and Oseguera (2005). These institution types provide necessary support, leading to the higher rates of success. Not surprisingly, the population in this study who attended a Tribal college were retained from year one to year two and indicated academic achievement on a higher end. While degree completion was not tested or explored in this study, it can be deduced that the MHA students had a great chance toward attaining this goal because first-year retention and first-year GPA are typically good predictors of degree completion. Specifically, literature shows that first year grade point average is an important variable in student success and retention from year one to year two, and academic success during college is a predictor of degree completion (Astin & Oseguera, 2005).

According to Cheshire (1993), utilizing grade point average or gender have been the focus in previous studies in relation to student success. For purposes of this study, both first year grade point average and gender have been significant predictors of retention of the sample population from year one to year two. In addition, statistics from the early 1990s and 2000s

showed that although 64% of American Indian students were enrolled in college, of those students 75% dropped out of college their first year (Cheshire, 1993; Mbuva, 2011). In contrast to the national trend, the data in this study showed that the majority of the population sample was retained from year one to year two.

American Indian students most likely come from a low socioeconomic background and lack the funding to pursue a higher education. Even when Gilbert (2000), Guillory (2002), Powless (2008), Baxter (2009), and Lindley (2009) indicate several factors that contribute to low retention rates for American Indian students, including low socioeconomic status and lack of funding, for the population in this study that statement does not hold true (Cheshire, 1993). Although the majority of the population was Federal Pell Grant eligible and had an unmet need, because of the funding the population received from the MHA Education Pathways Program to pursue a higher education, the majority of the population was retained from year one to year two. In the next section I discuss pre-college and in-college characteristics that apply to students pursuing STEM fields of study.

Science, Technology, Engineering, and Math (STEM)

The study measured grade point averages among Science, Technology, Engineering, and Math (STEM) and non-STEM majors. According to the population from which the sample was taken, we can conclude that there is a significant difference in first year GPA ($t(26.939)=-2.892$, $p<.05$, $p=.007$) between STEM ($M=3.51$, $SD=.426$) and non-STEM majors. Crisp et. al. (2009) convey that grade point average has been found to be associated with persistence in STEM majors by undergraduates. In addition, for the majority of this study's participants, Pell Grant eligibility and enrollment status were not found to be significant because the majority of the sample population were Pell Grant eligible and were enrolled full-time. However, according to

Crisp et. al. (2009), “the two environmental pull factors such as enrollment status and Pell Grant eligibility were not found to influence students’ decisions to major or to persist in STEM” (p.937). In this study, these factors would also hold true.

In addition, Crisp et al. suggest that gender tends to be a strong predictor of choice of college major for minority students. Female minority students are much more likely to pursue degrees other than STEM fields. However, the data in this study show of the 11 STEM students, 6 were male, and 5 were female. Although STEM education programs are generously supported and sponsored by the National Institutes of Health (NIH) and the National Science Foundation (NSF), there has been little research done in relation to the factors or variables associated with STEM outcomes (Crisp et. al., 2009).

Astin and Oseguera (2005) discuss how degree completion may be affected negatively by institution size. The majority of the sample size attended a small, urban, Tribal college, which may attribute to the number of students pursuing a degree in STEM and their success within that program of study. It is noteworthy to highlight the important role of the Tribal colleges in creating pathways to STEM education and workforce.

Conclusion

Based on the findings of this study, there is significance in first year GPA between high school diploma recipients and GED recipients. Additionally, STEM majors had higher GPAs than non-STEM majors. Although there is little significance found between the independent and dependent variables, the non-significance of these variables confirms that for American Indian students when financial barriers are removed, pursuing a college degree is attainable.

ARTIFACT III: IMPLEMENTATIONS IN PRACTICE

In the following section I address how educators at the secondary and post-secondary levels can best support American Indian students. In these sections I discuss early intervention, college readiness, financial support, and data collection that is pertinent to holistic support of students. After reading this section, my hope is that educators will take away ideas for existing programming or for starting a new program to guide data collection to determine the needs of students in order to remove barriers to their success.

To that end, first I will state my scholar practitioner positionality in relation to this problem of practice. Second, I will identify an intended audience for this dissertation in practice. Finally, I will offer a translational education research section (TER) to conclude my study. TER is a new, evolving genre of writing with the aim to enhance the loop between scholarship with practice and offer a platform to further dialogue between researchers and practitioners.

Scholar Practitioner Positionality Statement

This year will mark 15 years since my career began in the tribal college realm. My first of many roles was as an educational advisor in the Federal TRIO Programs for the Talent Search program at the local tribal college. The TRIO programs are “Federal outreach and student services programs designed to identify and provide services for individuals from disadvantaged backgrounds” (<https://www2.ed.gov/about/offices/list/ope/trio/index.html>, para. 1). I worked with students in grades 6 through 12 who attended schools on the reservation. For the younger students, my job was geared toward career exploration and development. For the students in

higher grades, my responsibility was to support them so they could graduate and to prepare them to go on to college.

Working with students is crucial work, especially early on, because on average less than 50% of American Indian students graduate annually from high school in the seven states with the highest percentage of American Indian and Alaska Native students. North Dakota is one of those states (Faircloth & Tippeconnic, 2010). Therefore, in order to ensure American Indian students are college ready, preparation must start early in their secondary education.

It was when I served in this role that I realized everyone had their own definition of success—even a sixth-grade boy who wants to work at the local casino when he grows up. I was not prepared to hear a response such as that one, and initially I thought I needed to expand his horizons. But then I realized that we, as individuals, each have our own definition of success. I also remember thinking that I needed to do more to let our young people know that they can dream big and achieve anything they desire, regardless of who they are or where they live. As I continued to work with students in the program, it became apparent to me that education was not always a top priority in their homes nor were students prepared for college. For the majority of students who are low-income, first-generation college students, the mere thought of going to college seems unattainable without the support of programs and support of colleges.

Throughout my career, I have held a variety of different positions—from faculty member to the Dean of Student Services. The entire reason I stay in higher education is because I love working with students and seeing them achieve their goals. Getting to know the students has allowed me to recognize first-hand some of the hurdles they encounter during their studies. This realization pushes me to do more and to be an unyielding advocate on their behalf. This is what I do to make a difference.

Today's students are changing and so must education. Our American Indian students continue to have the lowest level of overall educational attainment of all minority groups; they are the least likely of all minority groups to enroll in college; and, they finish educational programs at much lower rates than other students (Schmidtke, 2017). This lack of attainment hinders their success in higher education.

Student retention and graduation have been at the forefront in measuring student success. Tribal colleges and universities with significant American Indian populations have lower retention and graduation rates as compared to their mainstream counterparts. However, there are other indicators that researchers need to measure that determine student success, especially at a tribal college or university. Every student is different; they come with their unique set of hurdles to overcome in order to remain in school and earn a college degree. The factors that may hinder their success are varied—from getting admitted to school, to making it to class on-time, or to having adequate housing and daycare.

I have witnessed first-hand the barriers that American Indian students face and the lack of college capital these students experience as a first-time college student. I have noticed there is a disconnect for American Indian students between the secondary and post-secondary education systems, especially with students who attended a reservation high school, in that they come to college unprepared academically and lack college readiness. In addition, most students are unsure of how they will cover the costs of attending college, including living expenses. Throughout my time as a practitioner, especially in completing my dissertation in practice, it has become evident that all stakeholders involved in American Indian Higher Education must holistically meet the needs of their students because one size does not fit all, and it does not contribute to overall student success. Next I examine the intended audience.

Intended Audience

The purpose of this investigation is to address the research questions to inform various stakeholders who work with American Indian student populations in various capacities. Upon reading this dissertation, these groups will benefit by learning how successful American Indian students can be when financial barriers are removed, regardless of their demographic differences.

First, secondary educators will be better informed knowing that they need to start preparing American Indian students earlier in their education. This will help students be prepared academically and arrive at college with the college capital needed to navigate the higher education systems. Second, higher education professionals can use this information to provide improved, holistic student services. This will aid American Indian students in overcoming barriers, which will allow them to be more successful in their pursuit of higher education. Third, my research will also inform American Indian Tribes—specifically those tribes with higher education departments and funding—so that they can better support their students, financially or otherwise. Last, this dissertation will assist the current MHA Education Pathways Program in knowing what demographic, pre-college, and in-college information to collect and how to collect it.

Closing the Loop

When the discussion comes to literature and data about American Indian students and their journey from high school to college, there is definitely a gap in the literature. The data sample of this dissertation in practice is small, and although statistical significance was found in only two areas of the pre-college and in-college variables—the statistical non-significance finding proved to be as important as the significance. This non-significance proves that when the financial barriers are removed for American Indian students, such as they were for students

participating in the MHA Education Pathways Program, this student population can undoubtedly be successful. Next, I discuss how educators can best support their students.

Secondary Educators

For American Indian students, the aforementioned issues are the reality that this student population faces and continues to encounter. The literature states that only 51 out of every 100 American Indian high school students graduate from high school, and that 37 of those 51 high school graduates enroll in college and obtain a bachelor's degree within six years (Mendez et al., 2011). As educators, we can and need to do better.

According to Crosby (2011), previous academic performance predicts future academic achievement, and high school GPA and rank is a predictor of non-White college for American Indian students. Crosby (2011) mentions that American Indian students are already at a disadvantage before even getting to college. Many of the demographics mentioned and also reported in my research support the literature.

Therefore, starting with K-12 educators, college readiness for American Indian students must begin earlier. Exposing American Indian students to a wide range of careers and options after high school, coupled with supplemental educational programming, such as Upward Bound or advanced placement courses, will assist students in sparking their interests and to think about their future after high school. To curtail the challenges that American Indian students face before even getting to college, high schools—particularly on the reservation—should be exposing students earlier and more often to get them thinking about college, programs of interest and potential careers. It would be beneficial for schools to hold a college readiness event for students and their families where they can ask questions and get information about college admissions,

the financial aid process, budgets, and expectations. This event would allow students and their families the time to prepare, thus resulting in a smoother transition into college life.

Once students reach high school, every intervention should be taken to ensure that students stay on track and obtain their high school diplomas. Because the data show that there is a significant difference in first year GPA between participants who earned a high school diploma compared to participants who earned a GED. Also, many students are academically unprepared for college, and as a result some students may have to take additional courses to prepare them for college, which can affect retention and persistence rates (Al-Asfour & Abraham, n.d.).

Although it was mentioned in the literature, there was not any significant difference in the first year GPA between participants who attended high school on or off the reservation schools, especially for those located within the boundaries of a reservation. It would be beneficial for schools to hold yearly onboarding for parents/guardians, especially when students start high school so that they are aware of what the school year entails in terms of learning and opportunities. This event will help parents to stress the importance of education and to better support their students in the home by helping them be better prepared for the school year. In addition, since most American Indian students are first-generation, their parents/guardians may not have knowledge of navigating the various systems of higher education, thus additional programming would be beneficial for them, too.

Although I gathered demographic characteristics in my research, some were not available within the data set. Going forward, it would be helpful for both secondary and post-secondary educators to collect this data in order to better assist students in completing high school and transitioning into college. Next, I discuss ways in which post-secondary educators can best support their students.

Post-Secondary Educators

For American Indian students, one of the greatest barriers they face is how to pay for their education and living expenses while going to college. Financial hardship is among the top difficulties that hinders success in college for American Indian students (Crosby, 2011; Mendez et al., 2011). For most low-income populations, financial aid is usually the sole reason for students pursuing their higher education (Mendoza et al., 2009). When American Indian students were asked about what contributed to their success, the students mentioned much needed scholarships (Crosby, 2011; Mendez et al., 2011). As the data in this population shows, 97% of the population were Pell Grant eligible, and 98% had an unmet need. Although Federal student aid is pertinent in funding one's education, it is not always enough. Chen (2012) suggests that underserved minorities tend to have lower dropout rates when given higher financial aid packages. Chen and DesJardins (2008) also point out that although most low-income students are eligible for the Federal Pell Grant to assist in paying for their educational costs, the purchasing power has decreased and potentially affects student persistence. Even when a student receives the Pell Grant, it still is not enough to cover additional living expenses while the student is going to school. This situation is evident in the sample size of my research as the majority of the sample size is Pell Grant eligible and has an unmet need. However, with the funding received by the MHA Education Pathways Program, the participants in this study were retained from year one to year two.

Post-secondary institutions should also provide their own onboarding process for incoming Freshman and their families, including a one-on-one meeting to gauge their level of knowledge of the systems within higher education as well as the amount of support the student will receive from their families. Onboarding could include the college application process,

completion of the Free Application for Federal Student Aid (FAFSA), scholarship processes and applications, and program advisement. In addition, it would be beneficial for institutions to collect data for incoming students to provide the appropriate level of holistic services to ensure the students persist and are retained. Educators at post-secondary institutions are key to student success, but more importantly is the support from family and community members.

Families/Community Members

For American Indian students, having the support of their families is crucial to their overall student success. American Indian students credited their families as the biggest contributors of their success. Crosby (2011) points out that 45% of students responded that encouragement from family was a single contributing factor to their success. Because family in American Indian communities are considered collectivist, it is important that students receive support from their family circle, which also adds to their persistence (Al-Asfour & Abraham, n.d.). The data showed that the majority of students had a least one dependent; therefore, family support or the ability to support one's family while in college is detrimental to student success.

When transitioning into college, American Indian students may experience increased feelings of isolation and perceived hostility, which contributes to low performance. In addition, feelings of being torn between their culture and the campus culture, especially when leaving ties to their family and ancestral lands behind also contributes to low performance (Crosby, 2011; Mendez et al., 2011). These feelings can also be predictors of low campus engagement (Crosby, 2011). In other words, if students feel they do not belong, they are less likely to become involved and fail to integrate into the campus culture. These feelings coincide with Scholssberg's theory on marginality and mattering (DeLong et al., 2016). According to DeLong et al. (2016), the theory helps to explain students' feeling of marginality when change occurs, such as moving

away to attend college and unable to develop connections. This disconnect can cause students to feel they do not matter and end up failing in their studies and returning home.

The literature concludes that American Indian students face many barriers in obtaining a higher education. Many of these barriers start before or during the transition to college, which can be frustrating for students. However, there are supportive solutions that can contribute to the overall success of American Indian students. The data shows that the majority of students had at least one dependent while in college. What this means is that students are responsible for their families in addition to going to school. For students with family/dependent responsibilities outside the classroom, it is imperative that they have the support of their families, whether they are living with the student or living back home in their local community. Families and communities can better support their students by getting involved in the student's activities on campus or assisting the student with support—whether its financial, emotional, cultural, or through volunteerism. If a students feel supported by their families, they will most likely persist and be retained from year to year as was found in my research data. In the next section I address how existing programs and funding agencies can better support students.

Programs and Funding Agencies

Programs or funding agencies interested in providing students similar programming as established by the MHA Education Pathways Program, will need funding. I know not all tribes, programs, and funding agencies are the same, nor do they have similar financial resources to provide to their students. However, whether creating a new program or making changes to an existing program, it is imperative that program leaders become familiar with their students and the barriers they may face while trying to obtain a post-secondary education. The more knowledge a program has about the students they serve, the easier it will be to find resources for

students to help them in overcoming their barriers while going to school. Creating partnerships and professional development is crucial for people running these programs that essentially support institutions of higher education, which I address in the next section.

Tribal Colleges and Universities (TCUs) and Mainstream Institutions

The institutions themselves are key contributors to ensuring that American Indian students succeed in higher education. American Indian students feel more supported when they can interact and receive help from their faculty. Engagement within their academic realm increases persistence and retention rates improve, especially when faculty and staff become involved in promoting culture within the institution. If students feel comfortable and able to relate with faculty, they are more likely to reach out when faced with difficulties (Al-Asfour & Abraham, n.d.). In addition, institutions who allocate more resources for student services have a lower level of dropout (Chen, 2012). Therefore, institutions can establish fiscal policies and programs specifically for American Indian students, such as childcare, which in turn can increase persistence (Guillory & Wolverton, 2008). Additionally, institutions could prioritize the hiring and retaining of American Indian faculty in order to increase retention of American Indian students. Creating partnerships with the communities where institutions are located can be as simple as instituting a bus route to allow students to get to school easier. Institutions can ensure that their American Indian students' needs are being met holistically through allocating specific resources for programming and policy formation.

Many dynamics are involved in ensuring American Indian students are successful in obtaining their degrees. The aforementioned factors are deemed to be the most crucial in meeting the needs of American Indian students. These elements will ensure that American Indian students have the chance to persist and earn their degrees. For the purposes of this study, the majority of

the population sampled attended TCUs, in which all but two students from the entire sample were retained from year one to year two. However, to best support American Indian students, institutions need to look through their critical lens and take an inventory of where and how these institutions can best support this population.

This support can be accomplished by having repeated information sessions for students and their parents to help them understand the different facets of the higher education system. Next, institutions should ask themselves if they employ American Indian faculty and staff; do they provide an avenue for their American Indian students to feel a sense of belonging? Additionally, institutions should question if they have the fiscal resources to holistically support their students, whether it is in the form of scholarships to help cover the cost of attendance or to provide additional supportive services, such as daycare or transportation? These are only two of many questions that institutions should be asking themselves if they are going to be successful in supporting their students.

Student Success Model Implementation Proposal

The aforementioned findings, whether evidence of significance or non-significance of pre- and in-college characteristics and their relationship to first-year GPA and retention for year one to year two was observed. They demonstrate that funding is most likely the most significant barrier that American Indian students encounter. On a micro level, this dissertation can serve as a framework for funding American Indian students, whether the program is a Tribal or non-Tribal higher education program in order to remove barriers and increase student success. On a macro level, this research shows that when financial barriers are removed for American Indian students, they have the ability to be just as successful, if not more successful, than their counterparts.

Overall, this study is meant to inform all educators working with American Indian populations in order to best prepare these students, so they can be successful in college.

The model can be based on the current intake and include the missing data points as a holistic assessment model that includes intake data points, which could potentially improve the assessment and prediction model for American Indian student success. This model would also include requiring the student's high school diploma or GED scores as well as a financial needs analysis and be completed by the financial aid office at their current institution. Students will also be required to submit their unofficial transcripts at the end of each semester in order to track GPA. The model would collect the data points listed in Table 9.

Table 9.

Student Success Model Data Points.

Student Demographics	
Gender	
Age	
Family Size or Number of Dependents	
Voting Segment	
Pre-College Characteristics	
	Did you obtain your high school diploma or GED? Please attach high school transcript or GED scores.
	What was your high school GPA?
	Did you attend a high school on or off the reservation?
	Were you a recipient of free or reduced lunches?
	Did you participate in any supplemental programming such as TRIO?
	Did you take any advance placement courses or take any dual credit courses?
	Did you take the ACT/SAT/ or other placement test?
In-College Characteristics	
	Are you a first-generation college student?
	What is the highest education level of your father?
	What is the highest education level of your mother?
	What is the name of your current institution?
	Is your current institution located in an urban or rural area?
	Is your current institution a public or private institution? Tribal or Non-Tribal?
	Are you Pell eligible?
	Do you have an unmet need? Please attach a needs analysis completed by the Financial Aid office at your current institution.
	Are you in need of any of the following services?
	o SNAP
	o Housing Assistance
	o Childcare Assistance
	o Medical Assistance or help obtaining coverage
	o Transportation
	Have you experienced or are you currently experiencing food insecurity?
	What is your program of study? STEM or Non-STEM Major?
Outcome Variables	
	First-semester GPA
	First-year GPA
	Retention for year one to year two
	GPA and verification SAP after each semester completed

The pre-college characteristics within the assessment model would assist educators in advising students. The study shows that students who earned a high school diploma compared to those who earned a GED had higher first-year GPAs. Therefore, those students who earned a GED or had a lower high school GPA may need to take preparatory courses in order to better prepare themselves to move into their program of study. Additionally, this information is pertinent in completing scholarship applications and determining the additional financial assistance American Indian students may need if their GPAs do not qualify for scholarships the first semester of college.

Using the in-college characteristics of first-generation students and highest education level achieved by parent/s or guardians would assist in determining the amount of knowledge the student has in navigating the various systems of higher education such as the application process and financial aid/scholarships. Additionally, the location of the student's institution is also pertinent in terms of services available in that geographical region should the student need assistance such as housing and transportation. This will allow educators to foresee the student's needs and aid them in getting established with services.

Conclusion

For American Indian students, there can be many factors that affect ability to persist and earn their college degrees. However, there are also solutions that educators and institutions can address to ensure their American Indian student populations have the best chance at being successful students. The factors that have the potential to affect student success can be used to develop an assessment for American Indian students before they start their college career. Educators and institutions can ensure that their students' needs are holistically met and that they achieve degree completion as a result of implementing this assessment.

APPENDICES

Appendix A

MHA Education Pathways Program, College Student Information Form



MHA Education Pathways Program College Student Information Form



Date: _____ Phone Call E-mail Message Office Visit Recruitment Visit Where? _____

How did you learn about the MHA Education Pathways Program?

Family/Friend Counselor Website Newspaper Radio Other: _____

Personal Information

Full Name: _____
First *Last* *M.I.*

Tribal Home/Voting Segment: Four Bears Mandaree (West) New Town (North)
 Parshall (Lucky Mound) Twin Buttes (South) White Shield (East)

Contact Information

Home Phone Number: (_____) _____ Work Phone Number: (_____) _____

Cell Phone Number: (_____) _____ Personal E-mail Address: _____

Mailing Address: _____
Address *Apartment/Unit #*

City *State* *ZIP Code*

1. Academic Plan

Are you currently enrolled in a college/vocational training program? Yes No
What year in college are you? Freshman Sophomore Junior Senior Other _____
Which college/university are you enrolled? _____
What is your major or program of study? _____
Do you intend to be enrolled: Full-time (12 or more credits) Part-time (fewer than 12 credits)
Are you taking courses on-campus, online, or both? On Campus Online BOTH
What is your anticipated graduation date? Fall Spring Summer Year: _____
Assistance needed: Admissions Assistance Financial Aid (FAFSA)/Scholarship Assistance Academic Advising
 Career Planning Personal & Professional Development
 Tribal & Community Resources Referrals Retention

2. Academic Background

In order to provide you with the most accurate information, I would like to know a little more about your academic background:
Have you completed high school or your GED? H.S. GED When? _____ Currently Enrolled
Last high school attended: _____
Name of High School *City* *State*
Have you attended or are you currently enrolled in any other colleges or universities? YES NO
Name: _____ Location: _____
Name: _____ Location: _____

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