January 2019

Impact Of A Billing Strategy On Degree Completion Rates At A North Dakota Tribal College

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IMPACT OF A BILLING STRATEGY ON DEGREE COMPLETION RATES AT A NORTH DAKOTA TRIBAL COLLEGE

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
December
2019

This dissertation, submitted by Wanda Laducer in partial fulfillment of the requirements for the Degree of Doctor of Philosophy 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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Title	Impact of a Billing Strategy on Degree Completion Rates at a North Dakota Tribal College
Department	Educational Leadership
Degree	Doctor of Philosophy

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Wanda Laducer
August 5, 2019

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ACKNOWLEDGEMENTS

There are so many people that I need to thank. I would like to gratefully acknowledge those who have been with me throughout my journey of writing this dissertation. First and foremost, I owe an enormous amount of gratitude to my family; to my children, Jen Davis, Misty Laducer, Roland (Sonny) Laducer Jr. & AJ Laducer who have heard me say too many times, "I need to work on my dissertation". To my grandchildren, for being patient with me. So many times, I was unable to do "family" things because I was working on my dissertation. I also need to thank my fiancé Ron Parisien for his patience and support, allowing me the opportunity to complete this process in the face of overwhelming challenges of everyday life. He was my motivation through the struggles and trials of writing. He never gave up on me and always encouraged me to "get it done" in a nice way. To my parents who have both passed on - Jim & Yvonne Lindgren – thank you for always instilling education into my principles. You taught me the importance of integrity and being humble. This last year has been the hardest year of my life, with the loss of my dad and my sister (Joletta Shipman). There were days when I felt like giving up – and not completing this dissertation, but instead persevered and that made me stronger. Lastly, thank you to my advisors, Dr. Margaret Healy and Dr. Steve LeMire, for never giving up on me. You both guided me in the right direction when I fell off track. You stood by my side, each and every time I wanted to give up. From the bottom of my heart, thank you everyone for your patience, encouragement and support. Without it, I would not have achieved this huge milestone.

ABSTRACT

The purpose of this study was to investigate whether there are different outcomes for students on the two tuition models that were used in a tribal college in the state of North Dakota. Did financial aid play a role in the outcomes with the two tuition models that were used?

In an attempt to establish the relationship, the investigation considered whether the student was a full time or part time students, grade point average for each term enrolled, cumulative grade point average for each semester enrolled and length in time to departure. These factors were determined by the researcher and while the students were in attendance at the tribal college.

The investigation utilized a quantitative approach with an ex post facto design. Specifically, the study compared students who received some type of financial assistance and paid their tuition to students who did not receive any type of financial assistance and did not pay their tuition. Data for the six-year period beginning with the fall of 2008 formed the basis for this study. Included in the data retrieval was information concerning college grade point average, sex, age, ethnicity, financial aid awarded, and outstanding tuition balance.

CHAPTER I

INTRODUCTION

What happens to students when colleges increase the price of their tuition? At dinner tables around the country, families talk about the cost of college. Usually, they speak of tuition and fees, which have been steadily rising over time. The other costs of college, those that come with books and supplies, transportation, housing, and food, have also grown. This is true across public higher education, at two-year and four-year colleges alike (Goldrick-Rab, 2017).

The rising college prices over the last fifteen years stand in sharp contrast to what happened to family income. While in the 1980s and 1990s, growth in college prices was generally matched by growth in family income, in the current century it is not. Since 2003, the mean family income of all but the very wealthiest 5 percent of Americans fell or stagnated. In 2013, middle-income families earned about $64,000 per year, a decline of 5 percent over the prior decade. Families in the bottom fifth of the income distribution had earnings of about $16,000, down 8 percent (Goldrick-Rab, 2017).

Price, not intellect or effort, is the primary sorting mechanism in today's colleges and universities. As students move from one year of college to the next, class materials should get harder and student should need to study more. In a system like that, a degree would say something about ability, but that is not what's happening today. Time after time, the failure to complete college does not reflect intellectual ability but, rather, an inability to pay. We have no idea what a student's abilities are when it comes to going to college (Goldrick-Rab, 2017).

What impact do tuition prices have on the institution with student persistence and graduation rates? Impact, in the aspect of how do tuition prices affect students and their outcomes in college. My study examined if there was a difference in student outcomes when students were charged tuition and fees versus if they were not charged tuition and fees. Four years of data were reviewed, two years with the "early model –2008-09"and two years with the "current model – 2011-12".

Because higher education serves both public and private interests, its conception and financing is contested politically, appearing in different forms in different societies (Kaul and Mendoza 2003; Marginson 2007). When seen this way, what is public and private in education becomes a political–social construct (Mansbridge 1998; Menashy 2011), subject to various political forces, primarily interpreted through the prism of the state. Mediated through the state, higher education's construct can change over time as its economic and social context changes (Carnoy, Froumin, Loyalka, & Tilak, 2013). According to Samuelson's classic definition, a public good is characterized by non-rivalries consumption—its consumption by one individual does not detract from consumption by another individual—and non-excludability—it is difficult if not impossible to exclude an individual from enjoying the good (Stiglitz 1999). According to this definition, the public good aspects of the knowledge individuals acquire in higher education are those that others in society get to consume—for example, co-workers who pick up some of the higher educated individual's knowledge or fellow citizens treated more tolerantly and fairly because of the knowledge the individual acquired. Thus, a principal issue in the public/private good controversy is social efficiency. If there are significant economic and social externalities associated with increasing the number of higher education graduates or if imperfect capital markets pose barriers to socially optimal levels of investment in higher education, public interest

demands levels of state subsidies that would provide adequate higher education for the public good (Carnoy, et,al.).

There can be no doubt that without the cooperation and assistance of mainstream higher education institutions, some of the tribal colleges in existence may never have been established. There are examples of cooperative, trusting relationships between tribal colleges and mainstream higher education institutions (Brown, 2003). However, in many cases, the need for tribal colleges has been in question since their very inception. For example, in 1972, when the Turtle Mountain tribal officials began seeking accreditation for their college, Turtle Mountain Community College (TMCC), they approached the North Dakota Board of Higher Education for support. The North Dakota Board of Regents was reluctant to support the idea of a community college on the Turtle Mountain Indian Reservation because they felt the existing state institutions were adequate to serve the tribal members (Stein, 1988). "Because board officials thought it was humorous that an Indian tribe wanted to establish its own college, it passed the TMCC application to the smallest and weakest state institution" (Nichols & Monette, 2003). Reluctantly, North Dakota State University, Bottineau Branch (NDSU-BB), entered into a relationship with the Turtle Mountain Chippewa Tribe. A resolution was passed in 1973 bringing TMCC into official existence as a chartered institution of the Turtle Mountain Tribe. "The college began the first courses in the fall of 1973 under the banner of TMCC" (Stein, 1988).

Turtle Mountain Community College (TMCC) is one of the 37 tribal colleges within the United States, located in the northern center of North Dakota. Working within the tribal college realm has given me the opportunity to witness the triumphs and hardships that students endure throughout their educational endeavors.

For years, TMCC was known for its "reasonably priced" cost of education. Throughout its 40 + years of existence, TMCC gave many students the opportunity to become educated at very reasonable prices or in some cases, for free.

Students who received financial aid of some type, were those students who tuition was collected from. The students who didn't receive any type of assistance, either had an outstanding amount owed which was later "written off" or they were given a tuition waiver. For many years, TMCC had uncollected tuition revenue. Students were not "billed" for attending TMCC, but were still provided an education at very little or no cost to them. This was partially due to the fact that TMCC was and still is located in a poverty stricken area.

The board and administration recognized that if students didn't have the financial means to pay for their tuition, then there were others ways to collect revenue without charging them tuition. The college was still generating ISC (Indian Student Count) and FTE (Full Time Equivalence) in the form of revenue. This provided adequate revenue to TMCC to assist with the operating budget. In the 2010-2011 school year, TMCC administration with the governing board's support and approval, decided that it was time to start sending invoices to students who attended TMCC. Starting with the school year 2011-2012, students were given a tuition billing statement for the cost of their tuition and fees. Since that time, billing of student's tuition and fees has continued. Although a large amount of uncollected tuition and fees continues to occur, the amount of uncollected tuition and fees has decreased dramatically.

This study examined if there was a difference in student outcomes when students were charged tuition and fees (current model – 2011-12) versus if they were not charged tuition and fees (early model – 2008-09). Four years of data were researched; two years with the "early model – 2008-09" and two years with the "current model – 2011-12". The "current model, 2011-

12" which has continued to be our current method of "billing" students for their tuition and fees and the previous tuition model of collecting tuition and fees being referred to as the "early model". This study will show the student outcomes and institutional outcomes that are observed with both tuition billing models. A comparison will be made using the "early" tuition model and the "current" tuition model. The study will evaluate those students beginning in year one (2008-2009) of the "early" model and see how many of them have graduated at the end of year three (2010-2011). The same format will be done for the "current" model. Students who begin a two-year degree seeking program in (2011-2012) and of those same students, how many of them have graduated by the year 2013-2014. I hypothesized that there would be a higher percentages of graduates in the "current model" - 2011-12. In the "early" model, students didn't have to pay tuition therefore they hadn't vested any money into their education so they really didn't care if they graduated or not. The rationale is that students will persevere towards graduation more if they have to pay for it. Therefore, the results of this study will show that more students graduate within that three-year time frame from the "current" model simply because they are now required to pay their tuition and fees.

What is a Tribal College?

According to the American Indian Higher Education Consortium, there are thirty-seven tribal colleges and universities (TCU's) operating in more than seventy five-campuses in sixteen states. TCU's have been around for over fifty years, with recent interest from some tribes to establish new colleges. Today, TCU's are recognized institutions of higher education, providing educational opportunities to tribal and non-tribal members with culturally based programs that meet community needs. TCU's are the leading examples of tribal control of education. (Boyer, 2015). Tribal Colleges generally serve geographically isolated populations that have no other

means of accessing post-secondary education. They have become increasingly essential to providing educational opportunities for Native American students. Tribal Colleges are unique institutions that combine personal attention with cultural relevance to encourage Native Americans, especially those living on reservations, to overcome the barriers to higher education (AIHEC, 1999). Tribal Colleges and Universities (TCUs), were created to provide a quality of higher education for Native Americans. The unique benefits of attending tribal colleges include the convenience of being able to continue to remain close to home and family, experiencing the cultural components interconnected into the tribal college curriculum, and feeling a strong sense of community belonging (Brown, 2003).

Tribal Colleges are federally recognized in the United States. Back in 1999, TCUs offered 358 total programs, including apprenticeships, diplomas, certificates, and degrees. These programs included 181 associate degree programs at 23 TCUs, 40 bachelor's degree programs at 11 TCUs, and five master's degree programs at 2 TCUs (AIHEC, 1999). According to the White House Initiative on Tribal Colleges and Universities (TCUs) back in 2010, there were 36 federally recognized TCUs in the United States. Located mainly in the Midwest and Southwest, TCUs enrolled approximately 30,000 full- and part-time students. They offered two-year associate degrees in more than 200 programs of study, with some providing a bachelor's and master's degree. They also offer more than 200 career and technical education certificate programs (White House Initiative, 2010). Tribal Colleges and Universities are crucial to their communities. They are often the only postsecondary institutions within some of our nation's poorest rural areas. TCUs serve a variety of people, from young adults to senior citizens, Native Americans, and non-natives. They also provide critical services and augment hope to communities that suffer high rates of poverty and unemployment (White House Initiative, 2010).

Tribal colleges and universities (TCUs) are accredited higher education institutions located on or near Indian reservations. These institutions were established and are operated by American Indian tribes to educate the Native people and preserve their Native ways, giving students the opportunity to earn a college degree or certificate while embracing who they are as native people (White House Initiative, 2010). Tribally Controlled Colleges have a dual mission that distinguishes them from any other higher education institution. On the one hand, they combine Western higher education models with traditional American Indian forms of knowledge to prepare students for employment or continuation of higher education at mainstream universities. On the other hand, they work to ensure that students are culturally grounded (Grob, 2009). Tribal Colleges are unique in that they are the only colleges in the world that support and teach their tribal groups' respective cultural values and languages (Grob, 2009).

In 2013, there were 37 fully accredited Tribal Colleges and Universities (TCUs) in the United States (Stull, 2013). TCU's are located primarily in the Central and Western parts of the United States with one member in Canada (AIHEC- AIMS Fact Book, 2009). According to fall 2010 enrollment data, 8.7 percent of American Indian and Alaska Native (AI/AN) college students were attending one of the 32 accredited TCUs (at that time). AI/AN students composed 78 percent of the combined total enrollment of these institutions (2010 Review of Federal Agencies' Support to Tribal Colleges and Universities). The percentages of American Indian and Alaska Native (AI/AN) students attending TCUs are increasing yearly. According to a study by the National Center for Education Statistics, the number of American Indian and Alaska Native (AI/AN) students enrolled in TCUs increased by 23 percent between 2001 and 2006. TCUs are both integral and essential to their communities, creating environments that foster American Indian culture, languages, and traditions. Overall, TCUs have developed programs where

students are achieving. The American Indian College Fund reports that 86 percent of TCU students complete their chosen program of study, while fewer than 10 percent of AI/AN students who go directly from reservation high schools to mainstream colleges and universities finish their bachelor's degree (White House Initiative on American Indian and Alaska Native Education, 2010).

The Tribal College Movement

The history of American Indian higher education over the last five hundred years is one of compulsory methods of learning, recurring attempts to eradicate tribal culture, and high dropout rates by American Indian students at mainstream institutions. American Indian leaders "self-determination" movement in the 1960's brought higher education to a new level. The development of the tribal college movement represents an exciting era in post-secondary education. It established a precedent of success that stands in an unambiguous contrast to the failures the federal government has made in Indian education during the past 490 years (Hill, 1994). From the very beginning, tribal colleges addressed the problems of financial aid limitations, cultural isolation and family deliberations. Second, they met the need for a local forum to discuss community and tribal issues. Third, tribal colleges helped to strengthen the tribe through academic learning, training and cultural preservation (Hill, 1994). Early tribal colleges had several common traits. First, they were tribally chartered and controlled. This meant that they were controlled by their own tribes. Second, their philosophy and mission statement were strongly committed to the enhancement, preservation and teaching of their culture. Third, they were committed to the development of a strong, two year transfer program and, at that time, vocational/occupational programs. Finally, each one had a dedicated Board of Trustees, faculty, administration and staff.

Tribal Colleges and Universities were established by Native Americans to educate themselves and preserve native culture, languages and traditions. The first and largest TCU, Navajo Community College (now Diné College) was founded by the Navajo tribe in 1968 (Dixon, 2016). In 1968 when Dine College opened its doors as the first tribally controlled post-secondary institution, it marked a new era of self-determination for Native American students. Since then, Tribal Colleges and Universities (TCU's) have grown to include 37 institutions, serving over 30,000 students. In 2016, the 37 accredited TCUs in the United States all had open admission policies (AIHEC, 2016). Fourteen of these institutions offered accredited bachelor's degree programs, five offer master's degree programs, 35 offer associate's degrees, and 29 offer certificate programs (AIHEC Fact Book, 2016).

TCUs were located on or near Indian reservations mainly in the Midwest and Southwest and according to the American Indian Higher Education Consortium (AIHEC, 2010), they operated more than 75 campuses in 16 states, which virtually covers what we called Indian Country. They also serve students from more than 230 federally recognized Indian tribes (Dixon, 2016).

Although Tribal Colleges and Universities serve over 30,000 Native students, a significant number of them are nontraditional in that almost half are older than 25 years of age, 25% are single parents, 62% are female and 64% are full-time students (AIHEC, 2016). Students are not required to be Native American to enroll at a TCU. Non-Native American/Alaska Natives make up 22% of the combined total enrollment at tribal colleges and universities (White House Initiative, 2010).

Tribal colleges are actively working to promote tribal sovereignty and further economic growth aligned with tribal values in the communities they serve. These remarkable institutions

often go unrecognized for their achievements, and most remain underfunded in spite of the fact that work redefines the valuable impact that higher education institutions can have within their local communities (Stull, Spyridakis, & Gasman, 2008).

Tribal community colleges were not created to serve the same purpose as other higher education institutions. Tribal community colleges appeared in the 1960s as part of the "self-determination" era of Native American education (Carney, 1999; Oppelt, 1990), and from the beginning were established to serve a unique dual mission of Tribal Colleges and Universities (TCU's), that include preserving and revitalizing tribal culture and language.

The tribal college studied for the purposes of this dissertation is the Turtle Mountain Community College (TMCC). TMCC is one of the original six tribal community colleges (www.tm.edu). The Turtle Mountain Community College is chartered by the Turtle Mountain Band of Chippewa. The tribe granted a charter to the college in 1972. In 1976 the college received a Certificate of Incorporation from the State of North Dakota. The college is governed by a five-member Board of Directors. The board is an all Indian board appointed by the college's Board of Trustees. The Board of Directors serves as policy makers of the college (www.tm.edu). There is also a ten-member Board of Trustees. Of this ten member board, two members are tribal council representatives, two members are student representatives, and six members are lifetime appointments (http://www.nd.gov). TMCC is a member of the American Indian Higher Education Consortium (AIHEC), which is a community of tribally and federally chartered institutions working to strengthen tribal nations and make a lasting difference in the lives of American Indians and Alaska Natives. TMCC was created in response to the higher education needs of American Indians. TMCC generally serves geographically isolated populations that have no other means accessing education beyond the high school level (Boyer, 1998).

TCU's generally serve small but growing populations. The 2010 Census estimates that there are 5.2 million American Indians and Alaska Natives (AIAN), including both single and mixed-race individuals. During the past 10-years, this population grew by over 25%, much more quickly than the U.S. population (U.S. Census Bureau, 2011a). According to projections of the Census, the total population of both single and mixed-raced American Indian and Alaska Natives will be 8.6 million in the year 2050 (U.S. Census Bureau, 2011b). This population growth is a factor in the enrollment growth that is being found at many TCUs. During a time when many institutions across the country are experiencing declining student growth. This indicates the need and importance for TCUs to continue to grow.

As many other institutions in the country, TCUs are being scrutinized for their low first-time, full-time graduation rates. We need to recognize however, that these institutions provide so much more than just awarding degrees. TCUs generally serve geographically remote areas where no other post-secondary educational options exist, and are within a tribal community with high poverty and unemployment rates. The unemployment rate of American Indian or Alaska Native (AI/AN) in 2012 was 12.3% compared to 7.2% for non-native (U.S. Bureau of Labor Statistics, 2013). Unemployment rates can be much higher on and near tribal lands, with many tribes having unemployment rates as high as 34.8% (U.S. Department of Interior, 2014). Turtle Mountain Chippewa Reservation, home of Turtle Mountain Community College (TMCC), has historically existed with an unemployment rate of over 60 percent (Kurth, 2002). Tribal colleges do not only serve approximately 30,000 or more students; they provide extensive services to their indigenous community (AIHEC, 2010). Many operate childcare centers, libraries, provide native language courses, and offer GED tutoring and testing, as well as providing developmental

and continuing education. These services are essential to the community; but as a result drive up the educational costs the institution absorbs (Goldrick-Rab, 2010).

Higher Education and Finance

In discussions of higher education around the world, issues of finance are often prominent from the perspective of various stakeholders. Policymakers are engaged in asking how much of the public purse should be devoted to higher education relative to the competing demands for basic education, health care, transportation, and the many other public functions. Higher education officials and faculty are concerned about providing a quality education with scarce resources and sustaining their livelihood. Students and their families worry about how they are going to pay for their education beyond high school. Whether to impose or increase tuition fees, how best to fund institutional needs, and how to slow the growth of student debt burdens are just some of the topics that tend to dominate higher education debates in countries around the world. These debates now occur with regularity in both industrialized countries and in less developed countries, although often with a somewhat different focus. In the industrialized world, the central issue typically is how to improve the quality of the teaching and research that occurs within institutions as well as how to expand access for disadvantaged groups within society. For less developed countries—those with GDP per capita of less than $3,000 or so—the issue is more often focused on how to expand higher education to the point that it can meet the demand generated by those graduating from high school (Hauptman, 2007). Ironically, while financing issues are often a hotly debated topic, the amount of academic research written on the subject is fairly modest. Other topics—such as how to maintain quality, protect academic freedom, and strengthen governance—seem to be much more frequently the subject of academic research in higher education than are financial issues (Hauptman, 2007).

Higher education finance is reemerging as a matter of tremendous importance, and as a field of study with the potential to both inform and forearm decision makers as they grapple with the wide range of challenges that characterize the rapidly changing, uncertain and complex environment of the higher education enterprise. However, as we venture into the 21st century, we join others in expressing our impression and concerns that federal, state and institutional policies and practices appear to be without the benefit of a thorough analytic approach and foundation for insightful policy formation, implementation and evaluation (Paulsen & Smart, 2001).

American Indian Higher Education Consortium

The American Indian Higher Education Consortium (http://www.aihec.org/) is the collective spirit and unifying voice of the nation's Tribal Colleges and Universities. AIHEC provides leadership and influences public policy on American Indian higher education issues through advocacy, research, and program initiatives; promotes and strengthens indigenous languages, cultures, communities, and tribal nations; and through its unique position, serves member institutions and emerging TCU's (AIMS Fact Book, 2007). First, it was created by the colleges themselves. Unlike most associations, tribal colleges are not merely dues-paying members but also founders and directors. Second, it is through the consortium that most colleges receive essential federal support. As a practical matter, only colleges that are members of AIHEC and satisfy the legal definition of a tribal college get funded through the Tribally Controlled Community College Assistance Act of 1978. If nothing else, colleges are bound together by this legislation and the need to sustain the flow of money. But the American Indian Higher Education Consortium serves another important function. Through this body, tribal colleges nurtured a common vision and learned to see themselves as a national movement, not just a collection of struggling community colleges. By working together, they ensured not only their own survival

but helped shape federal Indian policy and even our nation's perceptions of American Indians. Because of this consortium, tribal colleges became far (Boyer, 1998)

Turtle Mountain Community College

Turtle Mountain Community College (TMCC) is one of the original six tribal colleges that were established by various Indian Tribes in the early 1970's. The Turtle Mountain Chippewa Tribe chartered the college in 1972. The Turtle Mountain Community College is located in north central North Dakota in the historical wooded, hilly, and lake-filled area known as the Turtle Mountains. This area is one of North Dakota's few all-service and all-seasons recreational areas. In addition to being the home of the Turtle Mountain Chippewa, the area is the home of the world-renowned International Peace Garden. The Turtle Mountain Chippewa are also referred to as "Anishinaabe" people because they speak in a native language known as Anishinaabe. Chippewa Indians speak two native languages; Anishinaabe and Mitchif.

Mission

Turtle Mountain Community College is committed to functioning as an autonomous Indian controlled college on the Turtle Mountain Chippewa Reservation focusing on general studies, undergraduate education, Career & Technical Education, scholarly research, and continuous improvement of student learning. By creating an academic environment in which the cultural and social heritage of the Turtle Mountain Band of Chippewa is brought to bear throughout the curriculum, the college establishes an administration, faculty, staff and student body exerting leadership in the community and providing service to it (www.tm.edu).

The Seven Teachings of the Anishinaabe People

The philosophical foundation of the college is embedded in the system of values that stem from the heritage and culture of the Anishinaabe people and expressed in the Seven Teachings of the Tribe.

1. To cherish knowledge is to know **WISDOM**.
2. To know love is to know **PEACE**.
3. To honor Creation is to have **RESPECT**.
4. **BRAVERY** is to face the foe with integrity.
5. **HONESTY** in facing a situation is to be honorable.
6. **HUMILITY** is to know yourself as a sacred part of the Creation.
7. **TRUTH** is to know all of these things.

TMCC's Purpose

Turtle Mountain Community College hereby establishes the following as the stated purpose:

1. A learning environment stressing the application of academic concepts to concrete problems;
2. Academic preparation for learning as a life-long process of discovery of knowledge embedded in the intellectual disciplines and the traditions of the tribe;
3. In and out of class opportunities to discover the nature of Indian society, its history, variation, current and future patterns, needs and to serve as a contributing member toward

   its maintenance and betterment;
4. A curriculum wherein Indian tribal studies are an integral part of all courses offered as well as history, values, methods, and culture of Western society;

5. Continuous assessment of institutional programs and student academic achievement for the purpose of continuous improvement of student learning;
6. Baccalaureate, Associate of Arts, Associate of Science, Associate of Applied Science degrees and certificate programs of study;
7. Cooperation with locally Indian-owned business and stimulation of economic development for the service area;
8. Continued independent accreditation; and
9. Community service and leadership.

Governance

The Turtle Mountain Band of Chippewa passed Resolution Number 678-11-72 on November 9, 1972 issuing a tribal charter to Turtle Mountain Community College to operate a college on the Turtle Mountain Band of Chippewa Indian Reservation. Turtle Mountain Community College was granted 501 I (3) not-for-profit status of the Internal Revenue Code in November 1972. The College has maintained that status. In 1976, the College was incorporated in the State of North Dakota. The College has authority through a state charter to operate within the State of North Dakota. The Higher Learning Commission of the North Central Association of Colleges and Schools has accredited the college to confer degrees and certificates. The articles of incorporation identify the managers of the College as the Board of Directors with responsibility for making and amending bylaws that provide for the regulation of the internal affairs of the Corporation (TMCC self-study, 2014).

Turtle Mountain Community College has a two-tiered board structure: A Board of Trustees and a Board of Directors. The Board of Trustees has ten members. Six of the members

are appointed by the tribal council and serve as lifetime members. Two are tribal council members who are appointed after each general election. Two are students, one of whom is the President of the Student Senate. The other is elected "at large" by the students to serve in the capacity as the "Student Representative" on the Board of Trustees. The Board of Trustees meets quarterly (TMCC self-study, 2014). The Board of Trustees oversee the Board of Directors (TMCC self-study, 2014).

The Board of Directors has a set of policies that formalizes its relationship to the institution and its authority. Section 1.6.0020.02 of these policies identifies the Board of Directors as the policy-making body of the institution with legislative authority over operations (TMCC self-study, 2014).

The Board of Directors consists of five members appointed by the Board of Trustees who serve five-year staggered terms. Each Board of Directors member is a member of the Turtle Mountain Band of Chippewa. The Board of Directors adopted policies that outline the authority and role of the Board of Trustees in the governance of the institution (TMCC self-study, 2014)

In its brief history the college has emerged as a leader among this nation's 37 tribal colleges. Its origin was humble. For the first few years the college operated out of two offices on the third floor of a former Catholic Convent. For another short period of time, the college operated out of the basement of an abandoned IHS facility. In 1977 the college moved into an abandoned tribal building and a BIA facility that had been moved to Belcourt's main street by a tribal member who had converted the building to a café and dance hall. It was on Belcourt's main street that the college later purchased and renovated several old buildings and as funding became available built a series of primarily metal buildings. In May 1999 the college moved to a new campus and a new facility. The new facility is located 2 1/2 miles north of Belcourt. Trees

and vegetation surround the new site that overlooks Belcourt Lake. Turtle Mountain Community College's new main campus includes a 105,000-sq/ft. building located on an approximately 123-acre site. The new facility includes state of the art technology, a fiscal area, general classrooms, science, mathematics and engineering classrooms and labs, library and archives, faculty area, student services area, student union, gymnasium and mechanical systems. A new auditorium with seating capacity for 1000 opened in 2003. The downtown campus currently provides a location for the Adult Education Program, the Vocational Rehabilitation Program, the Welding Program, and the Heating, Ventilation, and Air Conditioning Program. TMCC is a commuter college that does not provide residence halls. The former main campus in Belcourt has twelve buildings that provide 66,000 square feet of space. Both campuses are being used for college or community use. The two campuses house all college functions with the exception of some off-campus community responsive training programs (TMCC self-study, 2014).

TMCC applied for accreditation in 1978 with the North Central Association of Colleges and Schools and in 1984, full accreditation by the Higher Learning Commission was granted. A Bachelor of Science degree in elementary education was granted full accreditation in 2001. TMCC educational programs include 12 Associate of Arts programs, 16 Associate of Science programs, 3 Bachelor of Science programs, 7 Certificate programs, Career and Technical Education, and Native American Career and Technical Education Program. Bachelor of Science degrees are granted for elementary education, early childhood education, and secondary science. The Native American Career and Technical Education Program is directly responsive to and supportive of employment opportunities available to tribal members living on or near the reservation, and includes programs in Building Construction Technology, Commercial Vehicle Operations, Oil Field Operations, Computer Support, Welding, Heating, Ventilation & Air

Conditioning, along with others which can be found on TMCC's website (www.tm.edu). TMCC offers bachelor's degrees, associate degrees, and certificate programs. Bachelor's degree areas of study include early childhood education, elementary education, and secondary science education. Associate degrees include Associate of Arts, Associate of Science and Associate of Applied Science. There are several certificate programs including Oil Field Operations, Building Construction Technology, Welding, Computer Support Specialist, Plumbing, Accounting Technician, Phlebotomy (www.tm.edu).

An Adult and Continuing Education program was established at TMCC in 1976 to increase knowledge and improve skills and to assist adults in obtaining High School Equivalency Diplomas (Coon, Bangsund & Hodur, 2012).

TMCC has emerged as a leader among the nation's tribal colleges, growing from a fledgling institution serving fewer than 60 students per year to a community college serving more than a 600 full-time time equivalent students and approximately 250 pre-college adults (Kurth, 2002)

Its primary service area is the Turtle Mountain Band of Chippewa reservation and surrounding Rolette County. Thirty percent of the North Dakota Native American population lives within Rolette County. Ninety percent of all students are low-income. More than half are over 24 years of age, and nearly half have dependent children. The average TMCC student is single, (82%) and female (62%). By improving postsecondary educational achievements of tribal members, TMCC's programs build local capacity to effect positive systematic change and work towards public and private economic sustainability for Turtle Mountain Band of Chippewa.
In 2012, TMCC had 1,345 full-time students and 181 part-time students enrolled at the college. TMCC employs 142 full-time and 44 part-time workers (Coon, Bangsund, & Hodur, 2012).

In analyzing student success in the context of retention and completion rates, there are too many students who enroll at Turtle Mountain Community College without success and too little research has been conducted to understand the impact of the student aid on retention and completion rates. Prior to 2008 – 2009 students attending TMCC did not receive an actual "invoice-bill" for their tuition and fees. They simply attended college, were encouraged to apply for financial aid and when receiving their financial aid, their tuition and fees were subtracted from their aid awarded. For example, a student receiving financial aid or any other type of student financial support, tuition and fees were taken out, and the student received the remaining balance in two disbursements during that semester. If a student did not receive financial aid or any other type of student financial support, they were never billed, and the bad debt was eventually "written off".

Each year the Comptroller brought the "bad debt" list to the college's governing board asking for the bad debts to be written off. This list included amounts of tuition and fees that were unpaid for that year. This went on for 30+ years. Over time, this created unfairness in students paying tuition and fees. Those students who could not afford to attend TMCC without some type of financial aid had to apply to receive federal financial aid; and those students that could basically afford to pay to attend TMCC (people attending part time and working part time) did not apply for federal financial aid, therefore did not pay. So basically, the poorest students were paying tuition and fees (those students who qualified for the federal student aid) and the students who were capable of paying their tuition and fees, didn't pay their tuition. From a different perspective, there were many Native American students who were paying for their education because they qualified for federal student aid, and then there were many non-native students that weren't paying, because they didn't even attempt to apply for federal student aid. So, many non-

natives received degrees without paying a dime at TMCC, a tribal college. TMCC "not billing" students also affected the students who were going to transfer and attend college at another institution when leaving there. If they did not apply for their FAFSA and qualify to receive federal student aid, they would not be billed for tuition. They could in a sense "save" their federal financial aid for when they transferred to attend another institution to earn their bachelor's degrees. With the expectance that most TCU students take three to four years to earn their degree, most of the poorer students exhausted their eligibility to receive federal financial aid as they departed the institution. This was detrimental to students if they did eventually desire to earn a bachelor's degree.

To address the inequity of the situation, it was determined that all students would apply for federal financial aid, regardless if they wanted to or not. The student's admissions process was not complete until the student had applied for the fafsa (Free Application for Federal Student Aid). In 2011, TMCC began "billing" every student that enrolled. If the student did not receive financial support of any kind and could not afford to pay the outstanding tuition, they could apply for a tuition hardship waiver or set up a payment plan with the Business Office to pay their bill at TMCC. However, they were not allowed to register for classes at TMCC with an outstanding debt. This went on for two years before the administration decided that with the declining enrollment, not allowing students who had outstanding debts from previous enrollments to register, was also adding to the burden of low enrollment numbers. The President, Dr. Jim Davis, requested through the governing board, that students with outstanding debts be allowed to register for classes as long as they set up "payment plans" to pay off their debts. So, those students who do have an outstanding bill are allowed to continue enrolling and attending

class with the agreement that student would eventually pay the outstanding tuition and fees. TMCC's enrollment has shown an increase from the 2014-15 academic year to now.

Statement of the Problem

A major issue in higher education is the rising cost of tuition. As tuition continues to rise, costs increase, and college expenses continue to escalate. Financial Aid is a means of receiving financial support from a funding agency or organizations. Sometimes it may not need to be paid back if it is in the form of grant aid. Despite its good intentions, our current financial aid system is failing today's students. (Goldrick-Rab, 2017). The financial aid system was built to help with these challenges by offsetting the price of college for financially constrained families, thereby making college affordable. Grants, loans, work-study, and tax credits are – at annual cost of almost $240 billion – supposed to lower the official cost of attendance to a manageable price based on assessed financial need. The centerpiece of these efforts is the Pell Grant program, which provides a bit less than $6,000 a year to help reduce the price of attendance for the most economically vulnerable students. Soon, nearly ten million people will receive Pell support each year (Goldrick-Rab, 2017).

Institutions and policy makers struggle to account for this venture in higher education. Much of the research that has been conducted in the area of financial aid and tuition pricing involves how financial assistance, particularly federal financial assistance, offers students access, retention, and progression prospects. Researchers have concluded that financial assistance provides avenues for minority student access to higher education (Reports, 2003). Research also suggests that financial aid assists students in their efforts to stay in school and attain a degree. This is commonly referred to as retention and progression. Most, if not all, of the research that has been conducted is based on graduation rates or degree completion.

This study focuses on a tribal college located in north central North Dakota on the Turtle Mountain Indian Reservation and how it offered students the opportunity to attend college without that tuition expense, and the impact it had on the students as well as the institution. This could be called a "tuition pricing model". It was TMCC's method of enticing students to attend. TMCC did not bill students for many years. The chief administrators and the governing board relied on the revenue from the Full Time Equivalent (FTE) count rather than revenue from tuition. They felt that receiving $5,000 a school year, per student for head count was better than receiving $2000 from tuition revenue.

Purpose of the Study

The purpose of this study was to examine the impact on student and institutional outcomes for two different tuition billing models. The tuition billing models consist of an "early model – 2008-09", in which students were not billed but were still expected to pay their tuition and the "current model – 2011-12", in which students are "billed" tuition and expected to pay. The early model consisted of the years beginning in 2008-2009 through the years of 2009-10 and hopefully graduating in the 2010-11 year. The study only examined the years of 2010-11 and 2011-12 on whether students graduated or not within the specified time frame. This study examined the differences in student outcomes under both models. I hypothesized that under the early tuition model, at least 10% of enrolled students were not paying tuition. This created an enormous amount of bad debt that had to be written off each year. I hypothesized that under the current tuition billing model, enrollment decreased which means so had tuition revenue. This study also showed what the graduation rates were for students attending TMCC under both tuition payment models.

Today, TMCC charges all students who attend college. If the student is unable to pay, they can apply for a tuition hardship waiver. If the student has an outstanding debt and wants to enroll again the following semester, they can set up a payment plan and still enroll in college. TMCC now has what is called the "Institutional Work Program" where students can work within the institution. Their earnings get applied towards their outstanding debt. In a sense, this could be considered a pricing strategy. By portraying a tuition pricing model, students can determine what the cost of their education will be and will know up front the affordability of attending TMCC. Even with a previous outstanding bill, students have the opportunity to complete and graduate. Will the outcomes of this study show that students are more likely to complete and graduate when they have invested money into their education? The analysis will review TMCC policies throughout the years and how they impacted that current year's collection of tuition and fees. It will be a quantitative study in which independent variables will be identified. The population will consist of students attending within the years of the study.

Although all forms of financial aid can cover the expenses associated with attending college, whether it be tuition and fees or textbooks, there are still other indirect costs associated with attending college such as room and board, child care and transportation. This expense could be for anyone, not just college students therefore it is not considered into the cost that students actually pay to attend college (College Board, 2015).

College affordability is one of the factors taken into consideration as an administrator. Evidence shows that TMCC has the lowest tuition rate in the state of North Dakota. According to the U. S. Department of Education (2010), nearly 19 million individuals borrowed 90 billion dollars in 2010 for the purpose of pursuing a college education. The significance of this statement is in the realization of the number of individuals in this country who are pursuing a

college education and the high cost of doing so. Earning a college education has many benefits. Baum (2007) stated the benefits of a college education go well beyond the financial incentive to the individual seeking the degree. A college education impacts society through increased civic involvement, lower crime and incarceration rates, and lower unemployment rates. The high cost of acquiring an education is detrimental when it comes to completing the degree. Tuition pricing models can be explained in the following.

Research Questions

1. What is the student body profile under each tuition model?

   Each tuition model will be assessed. The "early" model will be the tuition model that was used for the first two years of the study. These will be for the academic years of 2008-2009, 2010-2011. The "current" model is the tuition model that was used for two years after that and the model that TMCC currently uses. These years will include 2011-2012 and 2013-2014. Each model will look at the following demographics. The demographic characteristics to be examined are: gender, age, ethnicity, financial aid awarded and outstanding tuition owed.

2. How do student outcomes compare between the two tuition models?

   The student outcomes to be examined are: full time or part time status, cumulative grade point average and length in time in months to departure.

3. How do institutional financial outcomes compare between the two tuition models?

   The institutional outcomes to be examined are: tuition paid and tuition not paid.

4. What percentage of students begin in a two-year program of study and how long did it take them to graduate from that program?

A comparison will be made using the "early" model and the "current" model. Using the students beginning in year one of the "early" model and see how many of them have graduated at the end of year three. The same procedure will be repeated for the "current model". I hypothesized that it will take less time in the "current" model for them to graduate. My rationale is that students will see the worth in their education more if they have to pay for it. So I believe the results of this study will show that more students graduate within that three-year time frame from the "current" model. An independent chi-square test will be used for this question. The variables included in these research questions are further articulated in Chapter 3 Methodology.

Significance of the Study

The study consists of data from the 2008-2014 academic years. Two of those years were prior to TMCC "billing" their students (2008-09 and 2010-11), and two of the years are after TMCC started "billing" (2011-12 and 2013-14). Essentially each billing model consisted of three years, however only the first year was used in determining the students who started in a two year program and the third year to determine if students graduated within the three year time frame. The second year of the study was not taken into consideration due to the complexity of the data and the fact that the study was really based on if the student had graduated by that third year for each model. The findings reflect the variables that were used and the impact that they had. The results of the study can be used by TMCC for future research. It could possibly improve the policies at TMCC in the future as well, while setting up a tuition pricing model that fits the needs of the student's in the surrounding communities. It will also provide insight to key people who work with the tuition costs on an annual basis and cost of attendance at TMCC, when it comes to determining if a tuition increase needs to be done.

Definition of Terms

You will see the use of the term Native, Native American as well as American Indian throughout this study interchangeably simply because there is not a "correct" term. Some terms need defining to convey the meanings intended for the reader. These definitions are listed as follows:

Tribal College and University (TCU) – Tribal colleges and universities are a category of higher education, minority-serving institutions in the United States. The educational institutions are distinguished by being controlled and operated by American Indian tribes; they have become part of American Indians' institution-building in order to pass on their own cultures. The first was founded by the Navajo Nation in 1968 and several others were established in the 1970s. As of 1994, they have been authorized by Congress as land- grant colleges. The purpose of these colleges includes to provide higher education opportunities in academic, career and technical education, cultural teaching, and learning (Pavel, Inglebret & Banks, 2001).

Reservation – The federally recognized homeland of a specific Tribe or nation. In the United States there are three types of reserved federal lands: military, public, and Indian. A federal Indian reservation is an area of land reserved for a tribe or tribes under treaty or other agreement with the United States, executive order, or federal statute or administrative action as permanent tribal homelands, and where the federal government holds title to the land in trust on behalf of the tribe (US Dept. of the Interior, 2012).

Culture – "a culture" is the set of customs, traditions, and values of a society or community, such as an ethnic group or nation (Barth, 1998).

Indian - American Indian - Native American – Native - Relating to the indigenous people of America. The term American Indian dates back to the late fifteenth century and the mistaken

initial assumption that Columbus had reached eastern Asia. In one of Columbus's early letters, he refers to the people he came into contact with as Indians. In the 1960s and 1970s, people concerned about the impact of using this inaccurate term started using *Native American* as a more accurate alternative that might be viewed as more respectful and avoid stereotypes (Walbert, 2009).

Tuition - Tuition is defined as the amount of money charged to students for instructional services. Tuition may be charges per term, per course, or per credit (IPEDS, 2018).

Land Grant - The term land grant came from the fact that federal land was granted to the states on a formula basis, specified at 30,000 acres for each senator and congressional representative, for education in the agricultural and mechanical arts. Universities are known as 1862 land grant institutions if their land grant status was awarded under the First Morrill Act. (Phillips, 2003)

Tuition Discounting - Tuition discounting is by no means a new phenomenon. It dates back to the late 1970s, when institutions began employing the strategy to attract students and increase tuition revenue. Although tuition discounting is a prevalent practice among private institutions, recent studies show that its effectiveness may be declining, and that administrators are more and more questioning its sustainability. In fact, a small number of private institutions are leaving the high cost-high aid tuition discounting model behind, and are exchanging it for significant cuts to *both* tuition and financial aid (Hanover, 2013).

Tuition Reductions- A small but growing number of private institutions have elected to turn away from the high cost-high aid model, and are slashing both tuition and financial aid (Hanover, 2013).

T*uition Freezes* - Tuition freezes are fairly common following the large tuition increases that tend to occur during recessions. Freezes frequently are informal agreements negotiated during the budget process between institutions and legislatures. In exchange for increasing state support by a certain amount, institutions agree not to raise tuition for a certain period (Hanover, 2013).

Tuition Eliminations - Some private institutions have recently moved to eliminate tuition payments altogether for certain student demographics (Hanover, 2013).

G*uaranteed or Fixed Tuition* - Fixed or guaranteed tuition policies set a single tuition price for each incoming class that cannot increase for a certain period—usually four years. Under such policies, once enrolled, students do not face rapid tuition increases from one year to the next, allowing families to better plan for college costs (NCLS, 2003).

Linking Tuition with Financial Aid - Because low-income students are sensitive to price changes, tuition increases can adversely affect their enrollment and decisions to remain in college. To counter the negative effects of tuition increases among low-income students, some states require a certain amount of all tuition increases be reserved for need-based aid (NCSL, 2003).

Replacing Loans with Grants - In an effort to reduce the amount of debt with which students graduate, a number of small private institutions have started replacing loans with grants in their financial aid packages. While many of the loan replacement measures specifically target low income students and families, some replaced loans with grants for all students receiving financial aid (Hanover, 2013).

Duplicated Headcount - An enrollment count in which an individual student may be counted more than once because they are enrolled in more than one medium or more than one

campus or every time they are enrolled for the fall, spring and summer semester during an academic year (NDUS, 2018)

Unduplicated headcount - This method measures the total number of students enrolled during the 12-month reporting period in any courses leading to a degree or that are part of a career and technical education program. Each student is counted only once during the reporting period (National Center Educational Statistics, 2013). Removes duplicate enrollments of students across institutions or categories so they are only counted once. For instance, a student who is enrolled in two institutions at the same time would count as one student (NDUS, 2018).

Fall Headcount enrollment is the number of students enrolled for credit or in a career and technical education program at the institution as of October 15 of that year, or the institutions official fall reporting date. A student counted as one enrollment in degree credit courses as of the 20th scheduled day of class (NDUS, 2018).

Full time equivalent (FTE) enrollment attempts to adjust enrollment figures by attendance patterns. All full time students are counted, plus a portion of part time students. FTE enrollment can be used for either 12 month or fall periods (AIHEC, 1999).

Indian Student Count (ISC) measures the number of FTE American Indian/Alaskan Native students enrolled according to a specific formula, for the purposes of distributing funds under the Tribally Controlled College Act (AIHEC, 1999).

Limitations and Delimitations

For the purposes of this study, the research was delimited to a single two-year tribal college in the northern part of North Dakota. The fact that the school was a two-year tribal college accounts for some limitations of the study where the graduation rates are typically lower

and could potentially impact the results of the study. Consequently, readers of this study are made aware that results only pertain to the Turtle Mountain Community College.

Summary

A brief description of the tribal college movement and the reasoning behind the development of the American Indian Higher Education Consortium (AIHEC) organization were given. The topic of college affordability has been on the forefront in the last decade. This chapter examines the issue of the increasing cost in tuition and how tribal colleges have struggled with it. It is unfortunate that tribal colleges already endure low completion and retention rates because of the lack of funding for students. Students tend to struggle more when attending a tribal college simply because most tribal colleges are located on reservations where the unemployment rate is high and the economy is low.

The preceding pages of this chapter give a brief description of the Turtle Mountain Community College, the location of where the study was conducted. TMCC, one of the 37 tribal colleges located in the United States, has served thousands of students since opening its doors in 1973. For many years, TMCC offered a free or low-cost education to many students by not "billing" students who attended college there. A comparison will be made utilizing an "early tuition model" and the "current tuition model" in regard to student demographics, student outcomes, institutional outcomes and the percentage of students that graduate within a three year time frame. Recently, TMCC began billing all students who attended TMCC. The Financial Nexus model was used as the framework for this study. The end result of the study will show that the graduation rate may be higher using the "current model" of billing.

CHAPTER II

LITERATURE REVIEW

The perception that college is not affordable is shared by the overall public. Data from a national poll of 850 million Americans in May 2000 shows that few adults, particularly middle income adults, believe that college is affordable or that financial aid is sufficient. Less than 10% of adults with family incomes between $30,000 and $75,000 "strongly agree" that "a four-year college education is affordable for most Americans," compared with 13% of adults with family incomes below $30,000 and 19% of adults with incomes above $75,000 (Perna, Laura W., & Chunyan Li. (2006). Only about half of adults with family incomes below $75,000, compared with 74% of those with family incomes above $75,000, believe that attending a four-year college is "usually" worth the price you pay (Perna, & Li. (2006). Taking more than two years to earn an associate degree or more than four years to earn a bachelor's degree has financial repercussions beyond tuition and fee expenses (College Board, 2016).

According to the U. S. Department of Education (2010), nearly 19 million individuals borrowed 90 billion dollars in 2010 for the purpose of pursuing a college education. The significance of this statement is in the realization of the number of individuals in this country who are pursuing a college education and the high cost of doing so (Avery, 2010). Many individuals need financial assistance in order to enable them to pursue post-secondary education. Financial assistance is provided at the federal, the state, and the local levels in multiple forms for the pursuit of a college education (Avery, 2010).

Tribal colleges were created over the last forty years in response to the higher education needs of American Indians, and generally serve geographically isolated populations that have no other means of accessing post-secondary education. Tribal colleges are unique institutions that combine personal attention with cultural relevance, so that they encourage American Indians to overcome the barriers in higher education (AIHEC, 1998).

In the initial years of the Tribal College movement, enrollment at tribal colleges had increased at a rapid rate but in the last ten years has seen some decline. By 2013-14, enrollment over the academic year reached 30,000 undergraduates and 350 graduate students. The number of undergraduates averages per school, and ranged from several thousand at Dine College to less than 200 at the Institute of American Indian Arts (IAIA) (AIHEC, 1998). Tribal colleges students tend to "stop out" more frequently than traditional undergraduate students. Tribal college students are different from college students nationwide. They are older; the average age at most institutions is around 25. They frequently arrive with poor academic preparation (Boyer, 1990). Many are parents or have significant obligations to families. Some transfer in from other institutions where they have failed (Boyer, 1990). Many students are the first to attend college in their family (Boyer, 1990).

The Rising Price of Higher Education

Community college tuition and mandatory fees rose in all but two states (California and Maine), with ten states registering increases of more than ten percent. The biggest increases were in Massachusetts and South Carolina, where charges jumped twenty-six percent (Trombley, 2003). Fifty-eight percent of US college students take out loans to help pay for tuition and fees. According to The Wall Street Journal, their average debt load upon graduation is $23,186 and rising (Wall Street Journal, 2009). This comes as no surprise; college tuition prices increased by

a staggering 326% between 1987 and 2007 (5.8% annually). To provide some comparison, the rise in medical costs during the same period was just 186% (Bureau of Labor Statistics, 2009). Rising tuition rates make it more and more difficult for families to pay for a college education. Student loans contribute to high levels of both personal and public debt, which are exacerbated by high tuition prices and easy credit from government student loan programs, respectively. These trends may be unsustainable (Best & Keppo, 2014). Rising tuition rates have become a popular topic in the media and a priority for policy-makers. Federal and state governments try to improve access to higher education for Americans through expanding financial aid programs. These programs allow thousands of Americans to attend school, but prices continue to rise, prompting governments to offer more and more financial aid. As early as 1987, Secretary of Education William Bennett, Jr. suggested that readily available student loans and grants may actually be fueling the increase in tuition prices (The New York Times, 2009). If public funding artificially inflates prices, they may eventually collapse, forcing schools to close, shattering perceptions of the worth of higher education, and destabilizing the education lending system through tighter lending standards and higher interest rates. In the meantime, prices may become too high for many Americans to afford without plunging into debt.

In 2005-06, average enrollment-weighted tuition and fee charges ranged from $2,191 at public two-year institutions, to $5,491 at public four-year institutions, to $21,335 at private four-year colleges and universities (The College Board, 2005a), (Perna & Li, 2006). In 2015-16, undergraduate students received an average of $14,460 per FTE student in financial aid, including $8,390 in grants from all sources, $4,720 in federal loans, $1,290 in education tax credits and deductions, and $60 in Federal Work-Study (FWS). Total federal grants to undergraduate students increased from $20.6 billion (in 2015 dollars) in 2005-06 to $41.7 billion

in 2015-16, after peaking at $51.9 billion in 2010-11. Grant aid per FTE undergraduate student increased by $750 (10%) in 2015 dollars between 2010-11 and 2015-16, after increasing by $2,390 (46%) over the preceding five years (College Board, 2016). In 2015-16, 34% of grant aid came from the federal government, 43% from colleges and universities, 14% from employers and other private sources, and 8% from states. Total grant aid for postsecondary students increased by 89% between 1995-96 and 2005-06 (after adjusting for inflation) and by another 79% between 2005-06 and 2015-16, reaching a total of $125.9 billion. Almost all of the growth in total grant aid between 2005-06 and 2015-16 was in the first half of the decade as FTE postsecondary enrollment increased by 21%. From 2010-11 to 2015-16, enrollment declined by 6% and grant aid increased by 5%. Institutional grant aid from colleges and universities grew from $29.1 billion (in 2015 dollars) in 2005-06 to $42.0 billion in 2010-11 and to $54.7 billion in 2015-16 (The College Board, 2016).

Total Pell Grant expenditures increased from $15.5 billion (in 2015 dollars) in 2005-06 to $39.1 billion in 2010-11, but declined to $28.2 billion by 2015-16. The number of Pell Grant recipients declined in 2015-16 for the fourth consecutive year, but the 7.6 million recipients represented a 46% increase from 5.2 million a decade earlier. The percentage of undergraduates receiving Pell Grants increased from 25% in 2005-06 to 37% in 2010-11, and was 33% in 2015-16. In 2014-15, 27% of recipients received the maximum Pell Grant of $5,730. The average Pell Grant per recipient was $2,371 (in 2015 dollars) in 1995-96. It increased to $3,000 in 2005-06, peaked at $4,196 in 2010-11, and decreased to $3,724 in 2015-16. Despite increasing by 21% in inflation-adjusted dollars between 2006-07 and 2016-17, the maximum Pell Grant covered 70% of average public four-year tuition and fees in 2006-07, but only 60% in 2016-17. It

covered 18% of average private nonprofit four-year tuition and fees in 2006-07, and 17% in 2016-17 (The College Board, 2016).

Published Net Prices

The net prices that individual students pay, are what matter the most to college students. This assists them in determining college access and affordability. The College Board estimated that in 2015-16, while the average published in-state tuition and fee price at public four-year institutions is $9,410, the average net price is about $3,980. Grants and tax credits and deductions cover the remainder for the average full-time student. The difference between the published tuition and fee prices and the average net prices that students pay has grown over time as grant aid and education tax benefits are playing a larger role. From 2008-09 to 2010-11, the federal government increased its funding for students, causing average net prices for students to decrease in years when tuition was rising rapidly (College Board, 2015).

These averages across sectors conceal considerable variation among students. In 2011-12, grant aid covered tuition and fees for many students and very few paid net prices resembling the published tuition and fee levels reported (Trends, 2015). Although the reality that some student aid is allocated on the basis of reasons other than financial need, net prices are positively associated with family incomes (College Board, 2015).

Published Tuition and Fees

The average published in-district tuition and fees at public two-year colleges increased by $80 (2.3%), from $3,440 in 2015-16 to $3,520 in 2016-17. The estimated average tuition and fees for full-time students in the for-profit sector increased by $340 (2.2%), from $15,660 in 2015-16 to $16,000 in 2016-17. More than 70% of full-time students receive grant aid to help them pay for college. In 2016-17, the average published tuition and fee price of $33,480 at

private nonprofit four year institutions is $8,550 (34%) higher than the average public four year out of state price. Average published charges, including tuition and fees and room and board, are $10,000 (28%) higher in the private sector. In 2016-17, the average published tuition and fee price of $3,520 at public two-year colleges are 36% of the average instate public four-year price. The estimated $16,000 average tuition and fee price for fulltime students enrolled in for profit institutions in 2016-17 is about 4.5 times as high as the average price at public two year colleges and 1.7 times as high as the average instate price at public four year institutions (College Board, 2016).

Variation in Tuition and Fees

n 2016-17, while the median price for full-time students attending private nonprofit four-year institutions is $35,020, 10% of full-time students attend institutions with prices below $12,000 and 7% attend institutions charging $51,000 or more. The average in-state tuition and fee price for full-time undergraduates at public master's universities is $8,340, compared to $10,510 at doctoral universities. The average published tuition and fee price for undergraduates at private nonprofit master's universities is $28,890, compared to $40,980 at doctoral universities (College Board, 2016).

Community colleges serve as the access point to higher education for many students. With lower published prices, less stringent admission requirements, and geographical proximity to more students than most institutions in other sectors, community colleges provide opportunities for education and training that would otherwise be unavailable to many. As the need increases for workers with some postsecondary education, but not necessarily a four-year degree, the demands on community colleges are growing (Baum, Little & Payea, 2011). Although the national average tuition at public two-year colleges is relatively low, there is

considerable variation across states. Published prices range from $820 in California, where about 20% of full-time community college students are enrolled, $1,326 in New Mexico, and $1,773 in North Carolina to $4,936 in Minnesota, $6,250 in Vermont, and $6,258 in New Hampshire. Over the five years from 2005-06 to 2010-11, community college tuition and fees increased by less than $500 in 13 states and by over $1,000 in 9 states (Baum, Litle & Payea, 2011).

What Students Pay

In 2016-17, the estimated average net tuition and fee price paid by full-time in-state students at public four-year institutions is $3,770, $860 (in 2016 dollars) higher than the net price a decade earlier and $1,550 higher than the 2009-10 low of $2,220. In 2016-17, the average net tuition and fees paid by full-time public two-year college students is $920 less than in 2006-07 but $270 more than in 2011-12 (College Board, 2016). After declining from $14,900 (in 2016 dollars) in 2006-07 to $12,770 in 2011-12, the average net tuition and fees paid by full-time students at private nonprofit four-year institutions rose to an estimated $14,190 in 2016-17.
In 2011-12, on average, institutional grant aid covered 16% ($1,310) of the published tuition and fees for all full-time in-state students at public four-year institutions. Institutional discounts ranged from 12% for independent students and 13% for the highest income quartile of dependent students to 20% for the lowest-income students. In 2011-12, on average, institutional grant aid covered 39% ($11,160) of the published tuition and fees for all full-time students at private nonprofit four-year institutions. Institutional discounts ranged from 24% for independent students and 33% for dependent students from the highest income quartile to 49% for those from the second income quartile. In 2011-12, the average published tuition and fee price facing students in the second income quartile who attended private nonprofit four-year institutions was

60% higher than the average price facing similar students in the for-profit sector. However, the net price they paid to institutions was 18% lower than the price paid by similar students in the for-profit sector (College Board, 2016).

Public Funding

In 2014-15, appropriations per FTE student were 8% lower in inflation-adjusted dollars than they were a decade earlier and 11% lower than they were 30 years earlier (College Board, 2016). The $77.6 billion in total state and local appropriations for higher education in 2014-15 represented a 3% increase in inflation-adjusted dollars over a decade, but a decline of 9% from the peak of $85.2 billion (in 2014 dollars) in 2007-08. A 16% (inflation-adjusted) decline in total appropriations and a 13% increase in enrollment contributed to the per-student funding decline between 2007-08 and 2011-12. Between 2011-12 and 2014-15, an 8% increase in appropriations and a 4% decline in enrollment led to a 13% increase in per-student funding. In 2014-15, appropriations per FTE public college student ranged from $2,900 in New Hampshire to $17,490 in Alaska. The portion of state and local resources going to support higher education, measured by funding per $1,000 in personal income, declined steadily from $7.37 in 1984-85 to $5.28 in 2014-15.

Role of Financial Aid and Paying for Tuition

Financial aid is a critical resource for Tribal College students. Despite relatively low family income levels, many students will qualify for some sort of financial aid. Students rely on financial aid to assist with the cost of their education for expenses such as tuition and fees, and room and board. Students enrolled in tribal colleges tend to have less access to the range of financial aid available to other students. For example, state and institutional sources together account for 25 percent of aid provided to all U.S. college students, but less than 1 percent of aid

provided to Tribal College students (AIHEC and The Institute, 1996). Tribal College students receive the majority of their financial aid through the federal Pell Grant program. In 1996-97, more than 7,000 Tribal College students received Pell Grants, with an average award of $1,629 (AIHEC, 2012). It is important to recognize that despite their low incomes, many Tribal College students may not receive Pell Grants due to a combination of their attendance patterns, few credit hours and low tuition levels. In addition, many Tribal College students fail to apply for federal aid due to the fact that they had attended a state institution previously and now may be in default on a student loan. Most tribal colleges do not participate in the student loan programs (AIHEC, 2012).

Financial aid is intended to assist students being able to attain post-secondary education. Financial assistance is provided at the local, state, and federal level in many different forms. The primary purpose of financial aid is to act as a bridge to assist students and parents in filling the gap between what they are able to provide financially to cover the cost of attendance in higher education. There are many manners in which students may be eligible to realize financial assistance. Merit-based aid in higher education is offered to students who perform at a particular academic level in their secondary educational efforts. Need-based aid is determined by what a student can show they need as a bridge in their finances in order to attend a higher educational institution (Avery, 2010)

The National Center for Educational Statistics (NCES, 2012) estimated that in 2010, approximately fifty-five percent of college and vocational program students received some form of financial aid (Fuller, 2014). Financial Aid has become a fundamental expectation of students as well as institutions. The American system of higher education goes as far back as 1643. The

first scholarship was given out at Harvard University from Lady Anne Radcliffe Mowlson, who stipulated that her donation be used to aid a poor students' pursuit of education (Avery, 2010).

Higher education and financial assistance are intertwined as have not previously been seen. Long (2010) wrote an article on the interdependence today of financial aid and the availability of higher education to the general population within this country. In her report, she discussed the many benefits of higher education and the escalating costs of availing oneself of this opportunity. A report from the U.S. Department of Commerce website (2009) verified that as the cost of higher education continues to escalate and the demand for furthered education as a prerequisite for employment becomes increasingly important, students have availed themselves of financial assistance in record numbers. Not only did the student receive a larger volume of financial assistance, but a greater percentage of students availed themselves of the financial assistance opportunity in support of their higher educational aspirations. In 2011–12, of the 7,234 Title IV eligible U.S. postsecondary institutions, 3,393 were for-profit institutions: 734 were 4-year institutions, 1,048 were 2-year institutions, and 1,611 were less-than 2-year institutions (Knapp, Kelly-Reid, and Ginder, 2012). For-profit institutions enrolled 3,299,508 undergraduates (annually) in 2011–12, up from 1,110,598 a decade earlier. Of the students enrolled in for-profit institutions during 2011–12, approximately 2,047,107 attended 4-year, 734,955 attended 2-year, and 517,446 attended less-than-2-year institutions (Ginder and Kelly-Reid 2013).

Declining Value of Federal Pell Grants

A study conducted about ten years ago shows that the largest source of grants for reducing college prices was the Federal Pell Grant program. In 2004-05, Pell Grants comprised

10% of the total amount of federal, state, and institutional aid used to finance postsecondary education expenses ($13.1 billion of $128.9 billion, The College Board, 2005b). In 2004-05, 5.3 million students received a Pell Grant (The College Board, 2005b). Although the total amount of Pell Grant aid increased by 86% in constant dollars over the past decade, increases in Pell Grant awards have failed to keep pace with increases in college prices (The College Board, 2005b). In 2004-05, the maximum Pell Grant covered only 36% of the average published price of tuition, fees, room, and board at a public four-year college or university, down from 42% in 2001-02 (The College Board, 2005b). The maximum Pell Grant covered only about 15% of the average published price of tuition, fees, room, and board at a private four-year institution in 2004-05 (The College Board, 2005b). The actual maximum Pell Grant ($4,050 in 2005-06) continued to be substantially less than the authorized maximum ($5,800) (Perna & Chunyan, 2006).

Pell Grant Today

Total Pell Grant expenditures increased from $15.5 billion (in 2015 dollars) in 2005-06 to $39.1 billion in 2010-11, but declined to $28.2 billion by 2015-16. The number of Pell Grant recipients declined in 2015-16 for the fourth consecutive year, but the 7.6 million recipients represented a 46% increase from 5.2 million a decade earlier (College Board, 2016).

The percentage of undergraduates receiving Pell Grants increased from 25% in 2005-06 to 37% in 2010-11, and was 33% in 2015-16. In 2014-15, 27% of recipients received the maximum Pell Grant of $5,730. The average Pell Grant per recipient was $2,371 (in 2015 dollars) in 1995-96. It increased to $3,000 in 2005-06, peaked at $4,196 in 2010-11, and decreased to $3,724 in 2015-16. Despite increasing by 21% in inflation-adjusted dollars between 2006-07 and 2016-17, the maximum Pell Grant covered 70% of average public four-

year tuition and fees in 2006-07, but only 60% in 2016-17. It covered 18% of average private nonprofit four-year tuition and fees in 2006-07, and 17% in 2016-17 (College Board, 2016).

Financial Aid and Academic Success in Higher Education

Economic and social success in American life increasingly requires a college degree**.** Fourteen percent of children from poor families may reach the top 40% of the income distribution if they do not earn a college degree, but holding a bachelor's degree nearly triples (to 41%) their chances of attaining that goal (Goldrick, Harris & Trostel, 2009). The persistence of such disparities despite nearly $100 billion of annual investments in need-based aid raises some obvious questions about the value of that spending. Does it mean that financial aid is ineffective, or that other factors are responsible for lower levels of college attainment among poor children? Historically, the role of money in educational decision-making has been relatively muted in much higher education research. For example, Vincent Tinto's (1987) widely known theory explaining college success – an internationalist approach to student departure – initially omitted finances altogether as a factor influencing whether students finished college, since the initial decision to attend was made and therefore it appeared that financial need was met. In a revision of his model, Tinto (1993) integrated finances into the initial adjustment into college and yet, as others have noted, this was not embraced by many of those using Tinto's perspective, who continue to omit finances when considering the factors that might predict completion (Goldrick-Rab, et. al. 2009).

Common Theories About the Impacts of Financial Aid

Since aid is a financial intervention, researchers often approach it from the perspective of the standard economic model, under the labels of human capital and net price theory. However,

as we will illustrate, this model does not explain certain anomalies in empirical research and this has led researchers to propose other types of models (Goldrick-Rab, 2006).

Human Capital Theory

The term human capital refers to knowledge, attitudes, and skills that are developed and valued primarily for their economically productive potential. It "refers to the productive capacities of human beings as income-producing agents in an economy" (Baum, S. & Hornbeck & Salamon, 1992).

The standard human capital model also informs how different types of aid impact student outcomes. In some ways, we might expect loans to exert only a small influence on student behavior. The basic human capital model assumes that students have full access to credit and make college decisions to maximize the net present value of their lifetime income. With credit imperfections, though, a small increase in net price can lead to a large response in educational attainment by making it impossible to make beneficial human capital investments. Therefore, for someone with access to few resources, a relatively small loan can make a big difference on college decisions (Goldrick-Rab, 2006).

Financial Nexus Theory

Given the limitations of prominent economic models regarding how aid should work, it seems appropriate to turn to theories stemming from other social science disciplines. One prominent example of an attempt to integrate multiple disciplinary perspectives is the "financial nexus theory" developed by Paulsen and St. John. According to their approach, the ability of financial aid to affect the decisions made by college students depends on the availability of aid and student *perceptions* of college costs. The primary purpose of financial nexus theory is to provide "insights into the ways students respond to student aid in different settings". Differences

in the observed size of effects of aid are explained by differences in how students initially perceived college costs. Researchers in higher education (including economists) have long recognized that information on both topics is widely available but unevenly received, but what distinguishes this from the economic model is the emphasis on perceptions (Goldrick-Rab, 2006).

In the financial nexus model (Paulsen & St. John, 2002), one would expect someone paying for something would value it more. The thought is that if you valued your courses more, because they had to pay for them, a student would be more likely persist to completion of their degree. In the current model – 2011-12 where students had to pay their tuition and fees, the graduation rate was 19.5 percent. For the early model – 2008-09, the model where students weren't required to pay their tuition, the graduation rate was higher. It was 27.8 percent. This difference was statistically significant. The nexus model examines how student background, finance-related reasons for choosing a college, college experience, current aspirations, prices and subsidies, and living costs influence persistence. This section describes the statistical methods, model specifications, and study limitations. The Financial Nexus model (Paulsen & St. John, 2002) implies that persistence goes through a three stage process. In the first stage, socioeconomic factors and academic ability are believed to affect a student's predisposition to pursue a college education and perception of financial circumstances. During the second stage the student estimated the costs and benefits associated with a particular institution that would entice the student to commit to enroll in college and further affect the decision to remain in college there. Within the context, financial aid would not only positively influence thoughts of matriculation but would also predispose the students to select a certain college. Once the student entered college, the third stage, college characteristics, college experiences and academic

performance in college helped modify or reinforce educational aspirations. Positive social and academic experiences in college and an adequate academic performance reinforced or even enhanced the students perceptions of economic and noneconomic benefits associated with enrollment in and graduation from the institution. Financial aid was believed to positively affect persistence decisions by maintaining an equilibrium between the cost of attending college and the benefits to be derived from the attainment of an educational degree. Negative college experiences, such as increases in tuition, affected the benefits and pushed the student toward withdrawal. (Phillips, 2000).

Socioeconomic Context

Students from low socioeconomic (SES) families have been part of American higher education since its earliest days, although always in small numbers, and are still underrepresented in higher education, particularly in four-year institutions and more selective colleges (Walpole, 1998). Although this group of students is widely acknowledged as educationally disadvantaged, they have received scant attention from researchers, in spite of calls for such research (Berger, 2000; Berger, Milem, & Paulsen, 1998; Tinto, 1987, 1993). This lack of attention is due, in part, to a traditional higher education research focus on mainstream students (Paulsen & St. John, 2002). In recent years, however, although low SES students have received little attention, scholarship focusing on the experiences of students from different racial and ethnic groups as well as those of different genders and sexual orientations has contributed substantially to the higher education research literature. These groups have concerned scholars because such students have been historically underrepresented and because of persisting concerns regarding equitable access to and outcomes of postsecondary education (Walhole, 2003). The reservations on which most Tribal Colleges are located face extremely high

unemployment rates, some as high as 70 percent on the Cheyenne River reservation. According to the U.S. Commission on Civil Rights in 2003: (AIHEC, 2009). The poverty rate for Native Americans living on reservations (31.2%) is nearly three times the national rate. On some Indian reservations unemployment levels have reached as high as 85%. Overall, the unemployment rate on Indian reservations is over two times the national average. Over 22% of Native American do not have enough food to meet their basic needs. One in five homes on reservations lack complete plumbing facilities. This means that less than 50% are connected to the public sewer system. This has led to the formation of numerous health and environmental hazards. Sixteen percent of reservation households didn't have any telephone phone service. Only 33% of roads in Indian Country are paved and 72% are officially rated as poor. It is estimated that 1.1 billion dollars is needed to adequately address housing inadequacies on American Indian reservations. Over 90,000 American Indian families are homeless or under housed. Homelessness on reservations is becoming increasingly more visible as families are living in cars, tents, abandoned buildings or storage sheds. Over 30% of American Indian families live in overcrowded housing and 18 percent are severely overcrowded with 25-30 individuals sharing a single home. These rates are over six times the national average. Approximately 40% of housing on reservations is inadequate according to the federal definition, compared to only 6% nationwide. American Indians have the highest rate of home loan denial of any race in the United States; nearly 25%. Low SES students are similarly underrepresented, and comparable equity issues exist for this group of students. Researchers have found that this group of students is less likely to attend college, is more likely to attend less selective institutions when they do enroll, and has unique college choice processes (Paulsen & St. John, 2002).

History and Development of Public Two-Year and Community Colleges

The seeds of the community colleges were planted just before the Civil War when Congress passed the Morrill Act in 1862. This legislation was the first belief that all citizens should have access to higher education. Extended to the former confederate state in 1890, the Morrill Act granted each state 30,000 acres of federal land per member of its congressional delegation to establish a university, hence the term land grant. The goal of these public universities was to prepare students for careers in agriculture, engineering, and military science: In effect the new public institutions constituted the first national workforce development initiatives. At the same time, the concept of how basic education for all Americans was expanding with the rise of public high schools that extended schooling beyond the elementary grades. Another innovation became apparent that some method was needed to bridge the span between high school and colleges. Students could now apply for admission to public and private colleges and universities. (Cohen & Brawer, 2003). However, these traditional institutions generally did not address the need for trained workers to serve the industries that were emerging in the final decades of the 20th century, nor were sufficient sears available for all who sought entry to high education. The pressure to train workers, coupled with the growing importance of science and technology, gave impetus to the move to establish two-year colleges that combined liberal education with college level vocational instructions, thus creating the junior colleges (Phillippe & Sullivan, 2005).

The year 1921 was significant with the establishment of the American Association of Community and Junior Colleges. This organization was later renames the Association of Community and Junior Colleges. The 1960's were boom years for the community college movement. About 45% of all 18 year olds, the so-called baby boomers who were the children of the returning WWII soldiers enrolled in college. This was the era where many parents felt that college was a necessity rather than a luxury for their children. It was also a time of disagreement over the Vietnam War, and many took

advantage of draft deferments for full-time students, causing enrollments to soar. More than 700 two-year colleges that had sprung up around the country as local leaders realized the value of such institutions to their communities. During that decade, more than 450 new colleges opened their doors, and a major facilities construction book occurred as a result of the strong economy (Cohen & Brawer, 2003).

The 1960's were significant for yet another development: the founding of tribal colleges. These institutions served a dual purpose, providing access to postsecondary education for Native American while also preserving traditional tribal cultures. The 37 tribal colleges in operation today are relatively small, receiving funds primarily from the Bureau of Indian Affairs. Their greatest assets are dedicated faculty and staff mainly composed of Native Americans, and finding sufficient resources to serve their students in a continuous struggle. A few offer Bachelor degrees but most tribal colleges offer the associates degree as their highest credential (Phillippe & Sullivan, 2005).

The United States established and continues to support a system of junior and community colleges (Vaughn, 2006). Vaughn stated the mission of the junior college is to offer the first two years of a four-year education and to facilitate the transfer of a student to a four-year institution to complete a baccalaureate education. He also recognized the community college as one which offers a technical curriculum in a practical area of workforce development and an academic curriculum with a transfer initiative. Vaughn differentiated the two types of coursework provided through the community college. Technical coursework was designed to prepare a student for entering the workforce in a particular area. Academic coursework was designed to be transferrable to facilitate progression and the realization of the four-year degree. The true community college is referred to by Vaughn as a comprehensive institution due to its combination of technical education and academic continuity through its transfer initiative. The

goal of the true community college is realized through placement in the workforce and or continuation through graduation or transfer to the four-year institution (Vaughn, 2006).

According to Vaughn (2006), access has been a major theme in American higher education since the end of World War II. Although a significant issue, he stated that access had not been readily available. He gave credit to three events which contributed to the proliferation of access to higher education, particularly to the community college. First, the baby boomers or children of returning soldiers from World War II, like their parents, they came to the realization of the significance of higher educational attainment and potential opportunity which would be realized from that attainment. Second, through the Equal Rights movement of the 60's and the early 70's, minorities desired and realized greater access to higher education. Third, the political and social demands of educating the citizenry encouraged the realization of financial assistance programs enabling more individuals to attend college. He stated that the democratic form of government thrived and survived based on the philosophical belief in the educational attainment of its citizenry. Knowledge breeds individualism, introspection, and freedom of thought and expression.

Vaughn (2006) stated community colleges at their core have a mission of open access. Open access is not an entitlement. It does not mean that all may attend similarly to the entitlement of secondary education. It does mean that community colleges strive to make available the opportunity to attend. Community colleges acknowledge their mission to support the typically underprepared practitioners who take the initiative to attend. The intention being that this access and support will ultimately enable the student to be successful in their post-secondary academic endeavors. According to Vaughn, community colleges make the effort to

bridge the gap between the underprepared K-12 graduate to post-secondary education through support services provided while attending the community college.

C**ommunity Colleges Today**

The rising cost of attending four-year colleges and universities has also pushed many students to begin their college career at a community college, where tuition is substantially lower and they can save on the overall cost of a college education. Nevertheless, one consequence of the funding difficulties community colleges have experienced in recent years is that they have been forced to turn away hundreds of thousands of students because they simply do not have the resources to serve them (Phillippe & Sullivan, 2005).

The funding stresses of the early 2000's must be placed in the context of the growing demand for postsecondary education. Between 1998 and 2002, enrollments in two-year colleges increased by 18% while four-year institutions grew at a rate of only 10% (NCES, 2004). The growing diversity of the student body is another challenge that is expected to continue over the next twenty year, based on population projections. One group of students includes recent high school graduates who plan to transfer to baccalaureate granting institutions. Another group of somewhat older, often lacks basic skills, and seeking job skills for immediate entry into the workforce. Yet, another group is composed of workers who want to diversify or upgrade job skills through either credit or noncredit study. Finally, there is a group that seeks enrichment through coursework and recreational or cultural activities. These groups of people include both men and women and people of all color, abilities, academic preparation, and ages. Community colleges must address the lifelong learning demands of all these groups through a comprehensive array of services that are constantly being adjusted. This requires greater capacity overall and the willingness to let go of services that are no longer useful while rapidly deploying new

services targeted to specific, even individualized, needs. Ultimately, this challenge focuses on ensuring students' educational success over a lifetime regardless of their backgrounds and goals (Phillippe & Sullivan, 2005).

For the 2009-2010 aid year, the federal government provided 90 billion dollars in financial assistance to students seeking higher education in the United States (U.S. Department of Education, 2010). Available research has investigated the use of these financial assistance monies primarily in relation to making higher education accessible, as well as the effect on retention rates. There is a lack of research on the type of aid received and its effect on academic success at the course level in public two-year colleges in Georgia. Research has not been identified which investigates the relationship, if any, of the type of aid received by a student to foundational course success. The gap in the literature provides the opportunity to determine if a relationship can be identified between financial aid type and academic success at the course level in public two-year colleges. Two-year colleges have struggled financially but consistently have maintained a lower cost of attendance than the traditional four-year institution (College Board, 2010). Primarily this can be accounted for by considering scope, instruction, and services for the two-year institution (Baer, Barefoot, Bonsal, et.al. 2010). Two-year colleges offer fewer programs than four-year colleges so their scope is more narrowly defined. In addition, two-year colleges use a larger proportion of part-time instructors reducing the total cost of compensation through the elimination of benefits paid to the employee and ultimately reducing the cost of instruction. And finally, they typically offer fewer services in comparison to four-year institutions as they are not trying to be all things (Avery, 2010)

Tribal Colleges & Land Grant

Tribal Colleges and Universities (TCUs) are chartered by their respective tribal governments, including the ten tribes within the largest reservations in the United States. However, tribal identity is the core of every TCU, and they all share the mission of tribal self-determination and service to their respective communities (www.aihec.org). Land grant status is a relatively recent development in the history of Tribal Colleges and Universities. The Equity in Educational Land-Grant Status Act of 1994 holds significant promise for tribal peoples in areas such as natural resources, agriculture, health, and youth development. Since the passage of this legislation, the 31 Tribal Colleges and Universities known as the 1994 land grant institutions have developed many innovative and successful educational programs under the most rigid organizational conditions. Yet, after eight years of land grant status, funding remains wholly inadequate, and efforts in collaboration within the land grant system have met with mixed success. To date, the conversation between the 1994 land grant institutions and their established 1862 land grant counterparts has focused primarily on how the Tribal Colleges and Universities can adapt to, and utilize, the dominant land grant paradigm (Phillips, 2003)

Most parts of the tribal college's curriculum are designed from an American Indian perspective, and the individual courses reflect this effort. The tribal colleges offer courses in native languages that might otherwise disappear, as well as traditional subjects (AIHEC, 2009 B-1. TMCC offers courses such as Native American Indian Studies or Anishinaabe Cultural Involvement and Research (www.tm.edu).

TCUs offer many services in a nurturing, holistic, and uniquely tribal environment that focus on helping retain students until graduation. Some of these services include personal and career counseling, mentoring, tutoring, wellness programs, child care and family support, lending

of laptops, low- or no-cost textbooks, and transportation and housing assistance. TCUs accept and honor all students, wherever they are in terms of academic preparedness. Through instruction and support grounded in tribal values and individual respect, the tribal colleges foster graduates who are committed to giving back to their communities and tribal nations (AIMS, 2009)

Like most small, community-based colleges, TCUs rely upon adjunct faculty members. But according to a 2003 survey published by the American Indian College Fund, TCU adjunct faculty are more engaged with their students and institutions than those teaching at mainstream community colleges (Voorhees, 2003). TCU faculty members guide student research projects, serve as mentors, participate in community activities, and provide many other forms of support to students, their families, and community members (AIMS, 2009).

In total, the United States-based in 36 major disciplines. TCUs continue to expand and develop new programs and departments that meet the needs of their students and tribal nations. A majority of the tribal colleges are two-year TCUs that comprise AIHEC offer 358 apprenticeships, diploma, certificate, and degree programs colleges.

Student Enrollment in Tribal Colleges

Since the initial years of the Tribal College movement, enrollment at the colleges has increased at a rapid rate. In 1982, enrollment at the tribal colleges was approximately 2000 students (AIHEC). By 1996-97, enrolment over the academic year reached 24,363 undergraduate students and 260 graduate students. The number of undergraduates averaged 870 per school, and ranged from several thousand at Dine College to less than 200 at the Institute of American Indian Art (AIHEC). Now, according to the American Indian College Fund, tribal colleges serve about 30,000 degree seeking students per year. Other interesting statistics posted

from the AICF states that 76% of TCU's students are American Indian Alaska Native. 62% of students enrolled at TCU's are the first in their family to attend college and 76% of TCU's student are low-income (AICF, 2017). According to the Carnegie Classification update in 2015, tribal college enrollment only makes up about 1% of the total colleges and universities enrollment in the United States. The total enrollment was 17,929 students within the thirty-seven tribal colleges (Carnegie, 2015). In the fall of 2010, TCUs served 19,070 full- and part-time academic students from more than 250 federally recognized tribes; they also reached nearly 47,000 more community members through community-based education and support programs. The colleges vary in size (from fewer than 50 students to more than 2,000), focus (liberal arts, technical skills, and sciences), and location (woodlands, desert, frozen tundra, rural reservation, and urban). Tribal identity is at the core of each TCU, and all TCUs share larger missions to strengthen and preserve tribal sovereignty, culture, and language and to serve their communities (AIMS- 2009).

TCUs have become a powerful force for educating AIAN students and preserving Tribal culture. Out of the 34 Title IV-participating TCUs, 12 conferred bachelor's degrees in 2012. These 12 institutions awarded 252 (88.4% of their total bachelor's degrees) to American Indian or Alaska Native peoples (National Center for Education Statistics 2014). In 2012, TCUs awarded 1,292 (78.5% of their total) associate's degrees to American Indian or Alaska Native peoples (National Center for Education Statistics, 2014).

Tribal College students share many traits, some that present challenges such as low income households and family obligations. Nonetheless, evidence shows that students are overall satisfied with their own experiences at Tribal Colleges and are completing their

Table 1. Enrollment in Tribally Controlled Colleges and Number and Percentage of Students Who are American Indians/Alaska Natives: Fall 2006

Tribal College	Location	Type of College	Total	# Amer. Indians Alaska Nat.	% of Amer. Ind./Alaska Native
Bay Mills Community College	Brimlay, MI	2 year	550	325	59.1
Blackfeet Community College	Browning, MT	2 year	467	442	94.6
Cankdeska Cikana Comm. College	Fort Totten, ND	2 year	233	219	94.0
Chief Dull Knife College	Lame Deer, MT	2 year	359	285	79.4
College of the Menominee Nation	Kashena, WI	2 year	513	427	83.2
Diné College	Tsaile, AZ	2 year	1,669	1,635	98.0
Fond du Lac Tribal and Comm College	Cloquet, MN	2 year	2,181	310	14.2
Fort Belknap College	Harlem, MT	2 year	161	148	91.9
Fort Berthold Community College	New Town, ND	2 year	196	190	96.9
Fort Peck Community College	Poplar, MT	2 year	441	369	83.7
Haskell Indian Nations University	Lawrence, KS	4 year	889	889	100.0
Ilisagvik College	Barrow, AK	2 year	203	138	68.0
Institute of American Indian Arts2	Santa Fe, NM	4 year	192	174	90.6
Lac Courte Oreilles Ojibwa CC	Hayward, WI	2 year	574	454	79.1
Leech Lake Tribal College	Cass Lake, MN	2 year	198	172	86.9
Little Big Horn College	Crow Agency, MT	2 year	312	290	92.9
Little Priest Tribal College	Winnebago, NE	2 year	95	82	86.3
Navajo Technical College3	Crownpoint, NM	2 year	392	388	99.0
Nebraska Indian Community College	Macy, NE	2 year	115	105	91.3
Northwest Indian College	Bellingham, WA	2 year	623	506	81.2

Table 1 cont.

Oglala Lakota College	Kyle, SD	4 year	1,485	1,355	91.2
Saginaw Chippewa Tribal College	Mt. Pleasant, MI	2 year	125	108	86.4
Salish Kootenai College	Pablo, MT	4 year	1,092	866	79.3
Sinte Gleska University	Rosebud, SD	4 year	969	778	80.3
Sisseton Wahpeton Community College	Sisseton, SD	2 year	279	251	90.0
Sitting Bull College	Fort Yates, ND	4 year	286	254	88.8
SWestern Ind. Polytechnic Inst.	Albuquerque, NM	2 year	561	561	100.0
Stone Child College	Box Elder, MT	2 year	397	370	93.2
Tohono O'odham Community College	Sells, AZ	2 year	198	195	98.5
Turtle Mountain Community College	Belcourt, ND	4 year	788	739	93.8
United Tribes Technical College	Bismarck, ND	2 year	606	543	89.6
White Earth Tribal and Comm. Coll.	Mahnomen, MN	2 year	106	67	63.2

degrees, some are transferring to four year colleges and universities, and other finding gainful employment (AIHEC, 2012).

Student Body at TCU's

Tribal Colleges provide access for local students who might not otherwise participate in higher education; in fact, most of those enrolled are the first generation in their family to go to college. American Indian students make up the plurality of Tribal College student bodies (AIHEC). Today, a majority of tribal college students are non-traditional. While TCUs continue to serve a large number of nontraditional college students, those enrolling for the first time are starting to more closely resemble "traditional" college students (Traditional college students are)

Academic Degree-Seeking Enrollment 2009-2010		
State - Total TCU's	**Tribal College & University**	**# of students**
Alaska (1 TCU - 226 students)	Ilisagvik College	226
Arizona (2 TCU's -2242 students)	Dine College	1996
	Tonoho O'odham Community College	246
Kansas (1 TCU - 1059 students)	Haskell Indian Nations University	1059
Michigan (3 TCU's -724 students)	Bay Mills Community College	563
	Keweenaw Bay Ojibwa Community College	43
	Saginaw Chippewa Tribal College	118
Minnesota (3 TCU's -1519 Students)	Fond Du Lac Tribal & Community College	1170
	Leech Lake Tribal College	233
	Red Lake Nation College	70
	White Earth Tribal & Community College	116
Montana (7 TCU's 3530 students)	Aaniiih Nakota College	293
	Blackfeet Community College	535
	Chief Dull Knife College	474
	Fort Peck Community College	531
	Little Big Horn College	265
	Salish Kootenai College	1207
	Stone Child College	225
Nebraska (2 TCU's - 290 students)	Little Priest Tribal College	161
	Nebraska Indian Tribal College	129
New Mexico (3 TCU's - 1826 students)	Institute of American Indian Arts	255
	Navajo Technical College	945
	Southwestern Indian Polytechnic College	636
North Dakota (5 TCU's - 2186 students)	Cankdeska Cikana Community College	242
	Nueta Hidatsa Sahnish College	313
	Sitting Bull College	446
	Turtle Mountain Community College	726
	United Tribes Technical College	459
Oklahoma (2 TCU's - 320 students)	College of the Muscogee Nation	200
	Comanche Nation College	100
South Dakota (3 TCU's - 3095 students)	Oglala Lakota College	1945
	Sinte Gleska University	913
	Sisseton Wahpeton College	237
Washington (1 TCU - 689 students)	Northwest Indian College	689
Wisconsin (2 TCU's - 1174 students)	College of Menominee Nation	606
	Lac Courte Oreilles Ojibwa Community College	568
Wyoming (1 TCU - 180 students)	Wind River Tribal College	180

Figure 1. TCU's academic degree seeking enrollment 2009-10.

typically identified as non-married students who are recent high school graduates, attend college full-time, and are between the ages of 16 and 24.) (AIMS, 2009).

Sixty-nine percent of the first-time TCU students were high school graduates, and another 20 percent had earned a GED. Four percent of first-time students were dual-enrolled in both high school and college-level courses. This percentage will likely grow over time as more TCUs establish dual credit programs (AIMS, 2009). The typical student is often described as a single mother in her early 30's. The American Indian College Fund estimates that over half of the Tribal College students are single parents. Staying close to home and contributing to their communities are two powerful motivating factors for American Indian students attending TCUs. These colleges provide many services to help students stay in school and complete their studies, including transportation, child care, academic and career counseling, internships, and tutoring (AIMS, 2009).

North Dakota Tribal Colleges (Tuition & Fees) 2017-2018

❖ Turtle Mountain Community College	(12 credits = 1125.00 per semester)
❖ Candeska Community College	$125.00 per credit (12 credits = $1650.00 per semester)
❖ United Tribes Technical College	$115 - $200 per credit + $43.00 course fee (per credit)
❖ Sitting Bull College	125.00 per credit & fees (12 credits = $1800.00 per semester)
❖ Nueta Hidatsa Sahnish College	(12 credits = $1800.00 per semester)

Figure 2. North Dakota tribal colleges – tuition and fees.

Pricing Strategies Used in Higher Education

Higher education pricing models have focused heavily on traditional student population analysis, net earnings, financial aid, and enrollment projections or unduplicated headcount. As the population of students shifts to a nontraditional majority, research of the effect of tuition price on nontraditional population segments is needed with a focus on

persistence (the likelihood of re-enrollment in the next semester for a given student) rather than overall enrollment levels. It becomes prudent to re-evaluate pricing models and the associated coefficients from tuition pricing changes on persistence to more effectively serve the nontraditional population as nontraditional students rely less on financial aid and progress through their curriculum at an individualized pace consistent with their needs (Spradley, 2018).

There is a broad national consensus among academics, policy makers, and college administrators that expanding college access to higher education for low-income students is crucial to developing an effective U.S. poverty policy (St. John, 2003). Education policy pundits disagree, however, on whether the most auspicious tuition policy to expand access should follow a high tuition/high aid model that targets aid or a low tuition/low aid model that provides universal aid (Curs & Singall, 2010).

While an institution's sticker price is significant, it fails to capture the real price most students eventually pay. Few families can afford to pay a private institution's full sticker price, so a substantial percentage of students receive financial aid from the institution itself in the form of institutional grants. Net tuition, the actual price a student pays after financial aid has been applied to the published price, is often considerably lower than the published price. Generally speaking, as the published price increases, so does the amount of institutional aid (Hanover, 2013).

Retention Rates

According to the Center for the Study of College Student Retention (2008), nearly 50% of students entering higher education will not earn a degree. Higher education institutions continually define and refine strategic initiatives to increase retention rates,

often devoting countless hours and resources with minimal results. A recent report by the National Center for Education Statistics (Chen, 2007) found that students enrolled part-time lagged significantly behind full-time peers in persistence in postsecondary degree completion. Stratton, O'Toole, and Wetzel (2007) stated that enrollment status alone does not account for lower retention rates among part-time students. These researchers found that the retention differences between part-time and full-time students were closely tied to enrollment objectives.

According to Tinto (2002), the frequency and quality of contact with faculty, staff, and other students is an important independent predictor of student persistence. Waller (2009) emphasized the difficulties faced by commuter students in connecting with and feeling a part of the educational learning community. Students are more likely to persist to graduation in settings that provide academic, social, and personal support (Tinto, 2002).

Full time retention rates are a measure of the rate at which students persist in their educational program at the institution they are attending, in the form of a percentage. For four year institutions, this is the percentage of first-time bachelor's degree-seeking undergraduates from the previous fall who either re-enrolled or successfully completed their program by the current fall. The full-time retention rate is calculated using the percentage of full-time, first-time degree/certificate-seeking undergraduates, while the part-time rate is calculated using the percentage of part-time, first-time degree/certificate-seeking undergraduates (IPEDS Feedback 2015).

Graduation Rates – Community Colleges

The American Association of Community Colleges (AACC) has long advocated for completion measures that accurately capture the performance of community college

students, many of whom attend part time and have attended college previously. The current ED official graduation rate is 150% of the "normal" time to completion for only one group of students: first-time, full-time. This 3-year window for 2-year programs that excludes transfers is clearly inadequate. A top AACC priority in the reauthorization of the Higher Education Act (HEA) is adding to the official graduation rate a 300% of normal time to completion graduation rate for community colleges, including transfers out. (Juszkiewicz, 2017). According to a report conducted by the American Association of Community Colleges which provided an analyses of trends in community college enrollments, the most recent cohort of first-time, full-time degree/certificate-seekers attending public 2-year institutions (cohort year 2013), the official graduation rate was 25.4%,8 which was almost a 2% increase from the previous year and the second consecutive year in which the graduation rate is higher than the lowest graduation rate of 21.1% for the recession cohort.9 Obviously this is very encouraging news. The rate is slightly higher for women (26.1%) than men (24.6%).

Summary

The preceding pages of this review of literature have illustrated the significance of financial assistance in the pursuit of higher education today and an anticipated increasing dependence due to rising costs. The significant investment made through public support of higher education is evidence of the priority our society places on the continuation of a person's studies beyond the secondary educational level. Given the importance of higher education and the financial support of students who pursue it, numerous studies have been conducted to help inform public policy on financial aid.

What the literature review does not identify is research that investigates if the type of financial assistance received can be related to academic success. More specifically, research is limited with regards to the smaller two-year institutions within our higher educational system within this country. This can be attributed in part to academic success in higher education being attributed primarily to the attainment of the four-year baccalaureate degree.

CHAPTER III

METHODOLOGY

This chapter contains a detailed explanation of the methods and procedures used to conduct a study on two different tuition models and the impact each model had on the enrollment profile of a North Dakota tribal college. The study will examine the student and institutional outcomes for two different tuition payment models. The study will examine if there is a difference in student outcomes when students are charged tuition and fees versus if they are not charged tuition and fees. Four years of data will be researched, two years with the early model – 2008-09 and two years with the current model – 2011-12. The chapter begins with examining the setting in which the research was conducted, followed by a description of the selected sample population, and concludes with a discussion of the data collection and analysis of the procedures used.

This study explicitly examines the nexus between college choice and persistence. Specifically, it examines the influence of a set of college-choice variables related to the financial reasons for choosing TMCC as the college of their choice and whether students that enrolled there, remained there. First, the origins and development of theories on college choice and persistence are highlighted to provide a basis for a model that examines the choice-persistence nexus. This particular study of the nexus between student choice and persistence focused on the area of financial impact using a market-based model. Finally, the nexus model also provided insight into the situated and contextual nature of college choice.

The initial financial commitments students make, in the form of finance related reasons for choosing to attend a college as well as their perceptions of their ability to pay – have an influence on subsequent integration processes. The logic of the integrated model, (Cabrera, 1998) argues that financial attitudes can directly influence the social and academic integration processes. In their research, Cabreara, Nora and Castaneda have documented that their question about finances had a direct influence on academic integration and college grades. Their study suggests that if student do not have sufficient resources, their academic work suffers. The underlying questions addresses when this approach is used differs fundamentally from the questions that most economic analysts have been concerned with when they investigate the adequacy of student aid. However, students' perceptions of adequacy are also important because their perceptions influence commitments and integration processes. If students feel their aid is inadequate, then they make take fewer courses or find work off campus, behaviors that could limit opportunities for social and academic integration (Braxton, 2000). St. John, Paulsen and Starkey (1996) identify three possible linkage structures: (1) from the financial reasons for choosing a college to the eventual experience of college affordability; (2) from the academic reasons for choosing a college to the eventual academic integration process; and (3) from the social reasons for choosing a college to the social integration process. Research to date verifies the financial nexus. These studies have found that the financial reasons for choosing to attend did interact with variables related to the college experience, including achievement in college. However, the logic of the other two approaches to examining the college choice - persistence nexus had not been explicitly examined at the time of this study. Thus, the nexus approach provides a second proven approach to integrating perceptions of finances into a complete persistence model. Further, the nexus model provides a way of examining how students'

perceptions of affordability – including perceptions of tuition, work, and living cost, as well as perceptions of student aid - influence the integration processes and their subsequent cost/benefit calculations and persistence. The model also reveals that changes over time in financial aid packages can influence students' academic and social integration processes, as well as their subsequent persistence decisions (Braxton & Hirshey, 2005).

Financial nexus theory argues that if students perceive low tuition or low living costs to be very important in their choice of college, such cost-consciousness may also have a direct impact on their subsequent persistence decisions. Similarly, in ways consistent with prior research, the actual dollar amounts of costs and aid a student experiences at the time of a persistence decision may have a direct effect on persistence. It is also possible that students' initial concerns about costs and aid at the time of their college choice may subsequently interrelate with their experiences of the actual amounts of costs and aid in the determination of their persistence decisions. Second, the nexus model can be used to examine cross-group comparisons, provided that the database has sufficient diversity. In a study using the financial nexus, Paulsen and St. John (1997) compared persistence decisions by students in public and private colleges. Students attending private colleges were much more likely than those at public colleges to consider high aid an important factor in their college choices, were less sensitive to tuition and living costs, and were more substantially and positively influenced by grant aid. In contrast, students in public colleges more frequently considered low tuition important, were more responsive to tuition and living costs, considered location (close to home and could work) to be important, and were more negatively impacted by the inadequacy of student grants. In another study, one of the most important findings of the financial nexus (St. John et al., 1996) was that students have dramatically different choice contexts, which have a pervasive influence on

multiple stages of the sequences of student choices. Some students chose their colleges because of the availability of high aid or low tuition, as we would expect from prior research on traditional age college students (e.g., Jackson, 1978; Manski & Wise, 1983). Others chose their colleges so they could economize on their living costs (e.g., by living at home) or so they could continue to work while attending college, patterns that would seem more compatible with non-traditional students who often have more constrained choices because of their limited financial resources or experiences.

In 2000, the College Choice-Persistence Nexus Model or Financial Nexus Theory, which is referred to as the nexus theory, was a theoretical framework created by merging two existing student retention perspectives: economic (Cabrera et al., 1992a; Nora & Horvath, 1989; St. John et al., 2000) and student-institution fit (Holcombe et al., 2014; Pascarella & Terenzini, 1991; Tinto, 1975). In support of this information, Hossler et al (2009) asserted that only two research studies have made the connection of financial aid to retention conducted by Cabrera et al (1992b) and St. John et al (1996, 2000). Most theoretical frameworks have focused on student-institution fit by looking at student and institutional variables (Andres & Carpenter, 1997). The nexus theory shows that socioeconomic factors, financial assistance, and institutional choice influence the student's persistence. Based on those premises, the nexus theory asserts that if students feel they have a strong financial support from an institution they will be more likely to choose that institution (St. John et al., 2000). If the institution continues to support the student with a financial assistance, the student is more likely to persist and graduate from college. Therefore, it is logical that a nexus or connection exists between TMCC's student's college choice and persistence to graduation. The nexus model, to measure persistence will be the theoretical framework used for my study.

This study used the financial nexus model to examine persistence by undergraduates in two different cohorts of students. The financial nexus model examines the effects of student background, perceptions or expectations about costs (financial reasons for choosing a college), college experience (including measures of student achievement in college), current aspirations, and finances (market-based, monetary measures of prices and subsidies) on persistence. The key feature of the nexus approach is that it examines the influence on persistence of both cost-related factors that students considered important in their choice of college and the prices and subsidies students encountered at the time of subsequent persistence decisions. Listed below are the relevant student success theoretical perspectives and the purpose of each one. The financial nexus model seems most fitting for my study since the tribal college is located on a reservation in a poverty stricken area. Financial aid may play a significant role in determining if a student will graduate with a two-year degree or not.

Setting

This study was conducted with students who were enrolled at the Turtle Mountain Community College (TMCC). Turtle Mountain Community College is a public, not for profit, tribal college located in Belcourt, North Dakota. Turtle Mountain Community College is a 123-acre state-of-the-art commuter college located on the Turtle Mountain Chippewa Reservation, with a South Campus in downtown Belcourt. TMCC serves the Turtle Mountain Chippewa Tribe and surrounding communities. Turtle Mountain Community College is one of the original six tribal colleges that were established by Indian Tribes in the early 1970's. The Turtle Mountain Chippewa Tribe chartered the college in 1972. The Turtle Mountain Community College is located in north central North Dakota in the historical wooded, hilly, and lake-filled area known

Table 2. Relevant Student Success Theoretical Perspectives.

Perspective	Theoretical Perspective	Purpose
Sociological Perspective	Student Integration Model	Students' decision to persist or drop out based on their integration into the formal and informal academic and social systems of the institutions.
Organizational Perspective	Student Attrition Model	Concentrates on the impact that the institution (i.e., organization) has on the socialization and satisfaction of students.
Psychological Perspective	Student Attrition Model	Focuses on the role of psychological characteristics that distinguish between those students who persist and those who drop out.
Financial Perspective	Financial Nexus Model	Highlights the role that finances play in persistence decisions.
Minority Perspective	Student /Institution – Engagement Model	Emphasizes the unique challenges that diminish the quality of the minority student college experience.
The Involvement - Engagement Perspective	Theory of Involvement - Student Engagement	Focuses on the behaviors that students engage in and the institutional conditions that are related to student success.

as the Turtle Mountains. The main campus is located just north of the unincorporated city of Belcourt. Belcourt is the center of the reservation community's government, commerce, and education for the more than 31,000 enrolled members of the tribe. The main campus houses a 165,000 square foot academic building on an approximately 123-acre site. The facility houses technology, finance, general classrooms, science, math and engineering classrooms and labs, library and archives, learning resource centers, faculty area, student services area including a student union, gymnasium, auditorium, career and technical education facility, and mechanical.

A wind turbine was erected in 2008 to serve as a source of power to the main campus on of North Dakota. TMCC offers certification and associate's and bachelor's degree programs.

Purpose of the Study

The purpose of this study is to examine the student and institutional outcomes for two different tuition payment models. My study will examine if there is a difference in student outcome when students are charged tuition and fees. My study will show what the success measures are for students attending TMCC under both tuition payment models. According to the U.S. Department of Education (2010), for the 2009-2010 aid year the federal government provided 90 billion dollars' in financial assistance to students seeking higher education in the United States. Much of the research available in this area is based on data provided by four-year institutions. Less research is available specifically related to two-year institutions, and in particular those of Tribal Colleges. Research was not identified which investigates the aid type and potential relationship to academic success. This gap in the literature provided the opportunity for investigation into determining if a relationship exists between students valuing their education because of their ability to pay for it themselves and their academic success in a public two-year tribal college in North Dakota.

Research Questions and Relevant Variables

This study sought to answer the following overarching questions:

1. What is the student body profile under each tuition model?

The student body profile under each tuition model will be assessed. The "early" model will be the tuition model that was used for the first two years – the academic years of 2008-2009 and 2010-2011. The "current" model is the tuition model that TMCC has used since 2011-2012. I will review the academic years of 2011-2012 and 2013-2014. TMCC continues to use this

tuition model to this day. Each model will look at the following demographics. The demographic characteristics to be examined are: gender, age, ethnicity, financial aid awarded and outstanding tuition owed, as shown in Table 3. A descriptive analysis was performed to determine means, standard deviations and percentages.

Table 3. Demographic Attribute Variable List-2008-2009 Award Year.

Variable Name	Variable Description	Data Type	Values	Source
Sex	Gender	Nominal	1 – Male 2 -Female	Institutional Record
Age Average	Age of student when enrolled	Ratio	18-55	Institutional Record
Ethnicity	Ethnicity	Nominal	1 White 2 A. Indian 3 –Black 4 –Hisp. 5 –Other	Institutional Record
Financial Aid Awarded	Financial Aid awarded	Nominal	1 – Yes 2 - No	Institutional Record
Outstanding Tuition Owed	Balance owed for tuition	Nominal	1 – Yes 2 - No	Business office Statement

Table 4. Demographic Attribute Variable List-2011-12 Award Year.

Variable Name	Variable Description	Data Type	Values	Source
Sex	Gender	Nominal	1 – Male 2 -Female	Institutional Record
Age Average	Age of student when enrolled	Ratio	18-55	Institutional Record
Ethnicity	Ethnicity	Nominal	1 White 2 A. Indian 3 –Black 4 –Hisp. 5 –Other	Institutional Record
Financial Aid Awarded	Financial Aid awarded	Nominal	1 – Yes 2- No	Institutional Record
Outstanding Tuition Owed	Balance owed for tuition	Nominal	1 – Yes 2 - No	Business office Statement

2. How do student outcomes compare between the two tuition models?

The student outcomes to be examined are: full time or part time status, course completion, cumulative grade point average and length in time in months to departure. A descriptive analysis will be performed to determine the percentage of full and part time students.

3. How do institutional outcomes compare between the two tuition models?

The institutional outcomes to be compared are: course completion, courses withdrawn from, tuition paid and tuition and fees not paid. Descriptive statistics will be used. The variables examined are as follows: course completion, courses withdrew from, tuition paid and tuition not paid as shown in Table 5 for the 2008-2009 award year and in Table 7 for the 2011-12 award year.

Table 5. Academic Attributes Variables-2008-2009 Award Year.

Variable Name	Variable Description	Data Type	Values	Source
FT PT	Full Time or Part Time Student	Nominal	F – % P – %	Student Transcript
CGPA Average GPA	Cumulative Grade Point Average	Nominal	1 – 4.0 2 – 3.0 - 3.99 3 – 2.0 – 2.99 4 – 1.0 – 1.99 5 – > 1.0	Student Transcript
MONS	Length in Time in Months to Departure	Nominal	1 – 72	Student Transcript

Table 6. Academic Attributes Variables-2011-12 Award Year.

Variable Name	Variable Description	Data Type	Values	Source
FT PT	Full Time or Part Time Student	Nominal	F – % P – %	Student Transcript
CGPA Average GPA	Cumulative Grade Point Average	Nominal	1 – 4.0 2 – 3.0 - 3.99 3 – 2.0 – 2.99 4 – 1.0 – 1.99 5 – > 1.0	Student Transcript
MONS	Length in Time in Months to Departure	Nominal	1 – 72	Student Transcript

Table 7. Institutional Data-2008-2009 Award Year.

Variable Name	Variable Description	Date Type	Values	Source
Tuition Paid/Not Paid Paid Not Paid		Nominal	Yes or No	Business Office Statement

Table 8. Institutional Data-2011-12 Award Year.

Variable Name	Variable Description	Date Type	Values	Source
Tuition Paid/Not Paid Paid Not Paid		Nominal	Yes or No	Business Office Statement

4. What percentage of students begin in a two-year program of study and how long did it take them to graduate from that program?

A comparison was made using the "early" model and the "current" model. The study will examine the students beginning in year one of the "early" model and see how many of them have graduated at the end of year three. The same will be done for the "current" model. I hypothesized that it will take less time in the current model -2011-12 for them to graduate. In the "early" model, students didn't have to pay tuition therefore did not care if they graduated or not. The rationale is that students will value their education more if they have to pay for it (College Board Research, 2016). The results of this study may show that more students graduate within that

three-year time frame from the "current" model. A test of two proportions will be completed for this analysis http://onlinecourses.science.psu.edu/stat414/node/268).

Population

The population for this study was based on students who were enrolled in a small public two- year tribal college in North Dakota sometime during the fall of 2007 and through spring 2014. The admission policy of the institution is one of open enrollment. Many of the students are the first in their family to progress on to higher education. Accessibility, both in terms of cost and proximity to home, is the institution's appeal to prospective students. TMCC is located in a rural area in the northern central part of the state, which accounts for the relatively low socioeconomic status of many of the students. Most of the students attending the institution receive some form of financial aid. Approximately 4000 records comprised the database for the purpose of this study.

Sample

All students were reviewed in each category for the ten variables; sex, age, ethnicity, first generation student, dependents, Socio Economic Status-Pell eligible, Marital status, High school grade point average, financial aid awarded and tuition paid. The sample for each year included all students of the academic year being studied, which will appropriately reflect the tendencies for each group. It was considered probable that four years' worth of data would provide the necessary sample size of the necessary subjects per group of students. The study data was obtained from the 2007-08, 2009-10, 2010-11, and 2012-13 academic years, resulting in a range for the study extending from the fall 2007 semester through spring 2013, a four-year period. Data for the purposes of this study are stored electronically in a database maintained by the institution. Approval to obtain the data for use in the study was gained through consent

from the Tribal Nations Research Group located within the governing body for the Turtle Mountain Band of Chippewa Indians.

Administration of the Instrument

All requirements for carrying out the procedures of this study were approved by the Tribal Nations Research Group and the University of North Dakota Review Board on (October of 2019). At the time of the study, the researcher informed the Turtle Mountain Community College President through written request for permission to utilize TMCC student records and the confidentiality protections of the student records.

Data Collection

Data was collected from a public two-year tribal college in a rural town in North Dakota. This institution has a current enrollment exceeding 580 students and is an open admission institution. Requirements for admission to the institution are based on the successful completion of a high school college preparedness diploma or successful completion of the General Equivalency Diploma (GED) test. Beginning with spring semester 2013 and extending back to the fall semester of 2007, data was collected based on the following elements: full time or part time student, enrollment for the first fall term, credit hours for the first fall term, grade point average for the first fall term, enrollment for first spring term, credit hours first spring term, grade point averages for first spring term, cumulative grade point average after completion of first year, enrollment in second fall tem, credit hours for the second fall term, grade point average for second fall term, enrollment for second spring term, credit hours for second spring term, and grade point averages, tuition paid, tuition not paid and outstanding tuition balance.

Data Analysis

For question four of the study, the data analysis was conducted using inferential statistics to investigate and determine if a relationship exists or if there is an association between two samples of the population. A chi-square statistic is one way to show a relationship between two categorical variables. In statistics, there are two types of variables: numerical (countable) variables and non-numerical (categorical) variables (John Hopkins, 2008). Hypothesis testing with contingency tables will be used to allow the researcher to test the hypothesis and generalize results to the population as a whole. A hypothesis test will be performed using contingency tables in order to decide whether or not are present. Hypothesis tests on contingency tables are based on a statistic called chi-square. The chi-squared statistic is a single number that tells you how much difference exists between your observed counts and the counts you would expect if there were no relationship at all in the population. There are a few variation on the chi-square statistic. Which one you use depends upon how you collected the data and which hypothesis is being tested. However, all of the variations use the same idea, which is that you are comparing your expected values with the values you actually collect. One of the most common forms can be used for contingency tables (John Hopkins, 2008). The test is useful for question four because we are using categorical data in examining the significance of the association (contingency) between the two kinds of classification (SPSS, 2018). The test involves a 2 x 2 contingency table and the results of the p-value from the test. However, the significance value it provides is only an approximation, because the sampling distribution of the test statistic that is calculated is only approximately equal to the theoretical chi-squared distribution. The approximation is inadequate when sample sizes are small, or the data are very unequally distributed among the cells of the table, resulting in the cell counts predicted on the null hypothesis (the "expected values") being

low (Yates,2013). The usual rule of thumb for deciding whether the chi-squared approximation is good enough is that the chi-squared test is not suitable when the expected values in any of the cells of a contingency table are below 5, or below 10 when there is only one degree of freedom. The procedure used to test the significance of contingency tables is similar to all other hypothesis tests. That is, a statistic is computed and then compared to a model of what it would look like if the experiment was repeated an infinite number of times when there were no effects (Yates, 2013).

CHAPTER IV

RESULTS

The focus of this chapter is to present the findings based on the data collection process. This chapter will present findings based upon a quantitative approach with an ex post facto design. The quantitative data collected during this study included institutional data extracted from the Jenzabar program utilized in the management information systems at TMCC.

This quantitative study resulted in a variety of findings explained in this chapter, with a presentation of the data provided by the researcher. This chapter concludes with a discussion of the study limitations and summary.

An ex post facto methods design was utilized in this study. The purpose of this study was to examine the student and institutional outcomes for two different tuition payment models. The study examined if there was a difference in student outcome when students are charged tuition and fees.

This study utilized an initial college choice-persistence model, the financial nexus model, to analyze and compare the effects of students who graduated from a Tribal college located in North Dakota. Students who attended TMCC were compared by whether or not they had been billed tuition and fees and if this had an impact on them successfully graduating. Specifically, those students who had not been billed for their tuition and fees were compared to students who had been billed for their tuition and fees.

The results of the study show that the current model -- 2011-12 of billing students did not have any impact on students graduating within a three-year time frame. The results show that more students graduated in the 2008-2009 group of students when the old model of billing was occurring.

Results of Research Questions

The results for question 1 are shown in table 6. Data provided within TMCC's management information system was gathered by TMCC's data report writer to prepare the data reports that would be utilized to analyze the data. She created all reports and included variables needed. Tribal Nations Research Group indicated that the researcher was not allowed to see any student identifiers regarding any of the student data. This would allow all student records to remain confidential in all areas. The IT person created the reports and all student identifiers were taken off of the reports before allowing the researcher to have access to the data.

In the 2008-09 "early model - 2008-09", there were a total of 176 students that started in a two-year program. Of that 176 students, 61 percent of them were females and 39 percent of them were males. The average age of this group of students was 26 years old. Their ethnicity was as follows: American Indian students – 94 percent, white students – 5 percent, other race – 1 percent. Of this group of students, 77 percent of them received financial aid of some type and 23 percent of the students did not receive any type of financial aid. This same group of students had 77 percent of the students who had paid tuition and fees and 23 percent of the students who had not paid tuition and fees. For the 2011-12 "current model -2011-12", 386 students started in a two-year program. Of those 386 students, 65 percent of the students were females and 35 percent of them were males. The average age of this group of students was 25 years old. Their ethnicity

Table 9. Demographic Attribute Variable List.

Early Model – 2008-09	Current Model – 2011-12
Sex	Sex
Female 107 Males 69	Females - 251 Males - 135
Age Average = 26	Age Average = 25
Ethnicity	Ethnicity
1 White 9 2 A. Indian 166 3 –Black 0 4 –Hisp. 0 5 – Other 1	1 White 12 2 A. Indian 370 3 –Black 0 4 –Hispanic 0 5–Other 1
Financial Aid Awarded	Financial Aid Awarded
Yes - 135 No - 41	Yes - 308 No - 78
Outstanding Tuition Owed	Outstanding Tuition Owed
Yes - 41 No - 135	Yes - 99 No - 287

was a follows: Native Americans – 96 percent, white – 3 percent, black – .07 percent, other – .03 percent. Of this group of students, 80 percent received some type of financial aid with 20 percent of these students not receiving any type of financial aid. This same group of students had 74 percent of their students that had paid their tuition and fees with 26 percent students having not paid their tuition and fees.

The results for question 2 are shown in Table 7. Table 7 represents the academic attributes variables used in the study for both model years. This first table shows that in the 2008-09 year there were a total of 176 students who started in a two-year program. 94 percent of the students were full time with 6 percent of the students being part time. The average cumulative grade point average of those 176 students was 2.50 and the average months to departure for the 49 students that we had information for was 20 months.

For the 2011-12 model, there were a total of 386 students. 94 percent of the students were full time and 6 percent of the students were part time. The average cumulative grade point average for this group of students was 2.34. Data for 166 students showed that their average months to departure was at 18 months.

Table 10. Academic Attributes Variables.

Early Model – 2008-09	Current Model – 2011-12
Full Time – 166	Full Time – 363
Part Time – 10	Part Time – 23
CGPA	CGPA
Average GPA 2.50	Average GPA 2.34
Months Average = 20 months	Months Average = 18 months
= 49 students	= 166 students

The results for question 3 are shown in table 8. Table 8 represents the number of students in each model who paid tuition and fees. In the 2008-2009 model, it shows that of the total 176 students who started in a two-year program, 73.3 percent paid their tuition and fees and 26.7

percent of the students did not pay their tuition and fees. In the 2011-2012 year, the data shows that of the 386 students who started a two-year program, 74.4 percent students paid their tuition and fees and 25.6 students did not pay their tuition and fees.

Table 11. Institutional Data.

Early Model – 2008-09	Current Model – 2011-12
Tuition Paid/Not Paid	Tuition Paid/Not Paid
Paid – 129	Paid – 287
Not Paid – 47	Not Paid – 99

The results for question 4 are shown in Table 9. In the 2008-09 model, 27.8% of students graduated within the three-year time frame used for the study. In the 2011-12 model, 19.4% graduated from its cohort within the three-year time frame used for this study. This difference was found to be statistically significant, $X^2(1) = 4.83, p < .05$ $(p = .02)$. The results indicate that the new billing model has not had a positive impact on students' graduation rates.

Table 12. 2 x 2 Contingency Table.

	Early Model – 2008-09	Current Model – 201-12	Marginal Row Totals
Graduated	49* (27.8%)	75* (19.5%)	124
Not Graduated	127	311	436
Total Students who started	176	386	560

*(% graduated in model)

CHAPTER V

DISCUSSION

The purpose of this study was to examine the impact on student and institutional outcomes for two different tuition billing models at a tribal college located on the Turtle Mountain Indian Reservation. The tuition billing models consisted of an "early model – 2008-09" in which students were "not billed" but were still expected to pay their tuition and the "current model – 2011-12" in which students are "billed" tuition and expected to pay. This study examined the differences in graduation rates and student outcomes under both models.

This chapter includes a discussion of findings as related to the literature on student and institutional outcomes of students attending TMCC under two different tuition models. Also included is a discussion on the graduation rates established from each tuition model used in this study. The chapter concludes with a discussion of the limitations of the study, areas for future research, and implication for practice.

Research Questions

1. What is the student body profile under each tuition model?
2. How do student outcomes compare between the two tuition models?
3. How do institutional outcomes compare between the two tuition models?
4. What percentage of students begin in a two-year program of study and graduated within three years?

This study utilized a student nexus model of college and choice and persistence (St. John, Paulsen, & Starkey, 1996). The St. John, Paulsen, and Starkey (1996) model included the financial factors that influence college choice as well as student persistence factors including college experience and aspirations. While the study only pertained to the Turtle Mountain Community College, students still had the opportunity to attend others colleges but chose TMCC. College choice was included because there are certain factors that are known to influence whether a student initially enrolls in a tribal/community college. Some of those factors may be: academic resources, majors or programs of studies, educational expectations, support services, and faculty. Descriptive statistics of the various variables are provided. Each of the four research questions is then addressed and the results of each model are provided.

In Chapter I, an introduction was provided as to what a tribal college is and the history behind tribal colleges. A brief explanation of the American Indian Higher Education Consortium (AIHEC, 2012) was given. A brief description was given, of the tribal college of which this study took place at, the Turtle Mountain Community College (TMCC). Tribal Colleges and Universities are postsecondary educational institutions founded and governed by American Indians for American Indians students. The statement of the problem, the purpose of the study, research questions, and significance of the study, definition of the terms and the limitations and delimitations all followed to inform the reader about the study.

In Chapter II, the literature review included the increasing of tuition and fees throughout community colleges and public universities. The dilemma of rising college prices is one of the most difficult aspects of higher education policy. How and why have prices gone up? Has financial aid kept college affordable despite the rising prices? Is there a "problem" with tuition, and if so, is it mostly a public relations problem, or have rising prices hurt the capacity of higher

education to maintain affordable educational access, institutional choice, and quality? Despite stacks of reports on the topic, the different pieces of the tuition puzzle have not been fit together (Wellman, 1999). The list-price tuition at U.S. colleges and universities has risen by roughly 7 percent per year since the early 1980s. The inflation rate has averaged just 3.2 percent. These are some of the numbers that fuel public anxiety about how to pay for higher education (Feldman, 2012). TMCC has not increased their tuition and fees for the past ten years, students attending there have not had to deal with cost and affordability like most colleges. At public two-year colleges, grant aid and tax benefits have exceeded posted tuition and fees. But students were still expected to pay more than in recent years. In 2017-18, the average aid and tax benefits totaled $330 more than the cost of tuition and fees. In 2016-17, it was $370 more than tuition and fees. Average aid can exceed average net tuition and fees -- students still must fund other expenses, like housing, food and books, which can cost thousands of dollars (Seltzer, 2017).

Increases in colleges' sticker prices and net prices aren't just numbers on paper. They drive questions about the affordability of higher education for many families. They also cause some to question the value of attending a college or university, as higher up-front costs make some worry about the return on investment. The debate exists to strong economic benefits from earning a college education (Seltzer, 2017).even as research continues to point

TMCC is by far the lowest cost institution to attend in North Dakota. Information was provided on published and net prices and the role that they play for college students. Then I went on to inform that reader about financial aid and the role it plays for the student. Many students would not be able to even attend college if it weren't for financial assistance. As mentioned, American Indian students face many barriers to enrolling in college. When students who were interviewed commented on negative aspects of their experience as a student, they most

commonly reported the financial hardships they endured in order to complete their studies. Evidence from this and prior surveys suggests that scholarship recipients, like all Tribal College students, face significant financial burdens and rely heavily on the availability of financial aid resources to attain a postsecondary degree. Although tuition and fees are relatively low—average tuition at TCUs was about $2,200 for full-time undergraduates in 2004-05 (NCES 2004b)—these costs are still high enough that many students simply cannot afford to attend without substantial help. Given their extreme financial need, students attending TCUs tend to be eligible for financial aid from various sources. Students attending TCUs, as well as American Indian students in general, rely mostly on federal need-based aid, particularly grants, to fund their education. In 2002-2003, 74 % of first-time, full-time degree/certificate seeking undergraduate students received aid from any source at TCUs—71 % received a federal grant, 24 % received a state or local grant, 38 % received an institutional grant, and only 2 % received a loan (NCES, 2003). According to one student, “Returning to or entering college is a way of facing the world and improving one’s standard of living. Given the options for returning to school, one can be thankful for scholarships, grants, etc. that help with the economic burden of college life.” (Chaplot, Cooper, et. al 2015). From there, I went on to discuss some common theories about the impact of financial aid. An overview of community colleges and tribal colleges was included in this chapter, both past and present. Student enrollments in tribal colleges has increased dramatically since their doors opened in the 1970’s. Information was provided about the student bodies at tribal colleges with most being non-traditional, meaning they don’t come to college immediately from high school. Most likely around the age of 25. Many of the students at tribal colleges were first generation students. This data fact was definitely in the 1990’s and early 2000’s. Now, with tribal colleges being in existence for more than 40 years many more Native

Americans are getting educated including the younger generations. In the chapter, the reader was given an idea of who the North Dakota tribal colleges are and what their tuition and fees were at that time. Then some pricing strategies that were used throughout colleges and universities were highlighted and then the chapter ended with the definition of what retention rates are and how they are determined.

This study utilized the financial nexus theory (Paulsen & St. John, 2002). This particular model predicts that more students would graduate with a two-year degree since they would value their education if they had the "ability to pay for it". With the "current model – 2011-12" having 200 + more students than the early model – 2008-09, the Nexus theory would predict that more students would graduate from the current model – 2011-12. The data shows that in the early model – 2008-09, there were more students that graduated with a two-year degree then from the current model – 2011-12. These results imply that there is a relationship with the nexus model. This particular model predicts that more students would graduate with a two-year degree if they could pay for their tuition, since they would persist to graduation because they were expected to pay for it. Early studies by Voorhees and Moline and Nora sought to explore the interconnections between financial aid and other variables (e.g., student grades) found to have an effect on student persistence. Later approaches, such as the ability to pay model by Cabrera, Nora, and Castaneda 1992) and the college choice - persistence nexus model (St. John, Starkey, and Paulsen 1996), have attempted to clarify the process by which ability to pay and financial aid are interrelated with college experiences and the reenrollment decisions of students. (Philips, 2000). Students truly need to be made aware of the cost of attending college and the impact it could have on them completing their degree. If students had the ability to pay, the nexus model would apply to this study. At tribal colleges, students tend to take longer to graduate then the

normal time frame. Graduation rates are the calculated percentages of students who graduate or complete their program within a specified timeframe (IPEDS, 2016). Graduation rates are important to a variety of audiences. Graduation rates are the measure reflecting the number of students who complete their graduation and receive a degree from an educational institution. The drop-out rate is the measure reflecting the number of students who disengage with the educational institutions they are enrolled in. Those measures are calculated by the National Center for Education Statistics (NCES), the primary federal U.S. entity for collecting and analyzing data related to education (NCES, 2018). The Graduation rate has been reported to be decreasing over the past decades in the U.S. However, the percentage of dropouts among 16-24-year-olds has shown some decreases over the past 20 years (NCES, 2018).

As for the main question, we evaluated the two tuition models. The current model – 2011-12, is the model that we continue to use today. In this model the students are held responsible to pay their tuition by the end of the semester they are enrolled in. If they had an outstanding balance the following semester that they enrolled in, they had options on how to pay that balance due. Their first option was to set up a payment plan. This would require them to go to the Business Office and set up a payment plan on what their payment plan is going to be. The next option is to apply and receive a financial hardship tuition waiver. This form would need to be picked up in the Student Services department and completed by the student. Once the form is completed, it can be returned to the Student Services office. A committee reviews all tuition waiver requests. The student would be notified of their approval or disapproval for the tuition waiver. If the student is granted the tuition waiver, the student is still responsible to pay their own fees, which at the maximum is $125.00. A third option is to pay the outstanding balance off before enrolling for the next semester. In the early model – 2008-09, students could continue in

the program if they did not pay their tuition from semester to semester. This could end up being an enormous outstanding debt for some students. In this early model – 2008-09, the Comptroller submitted an outstanding debt report to the governing board and asked for concurrence in regards to writing off the outstanding debt to bad debt expense. Even though these students had an outstanding debt, they knew that it would be written off so had very little concern with it, therefore made no effort in paying any of their outstanding tuition owed.

In the financial nexus model (Paulsen & St. John, 2002), one would expect someone paying for something would value it more. The thought is that if you valued your courses more, because they had to pay for them, a student would be more likely persist to completion of their degree. In the current model – 2011-12 where students had to pay their tuition and fees, the graduation rate was 19.5 percent. For the early model – 2008-09, the model where students weren't required to pay their tuition, the graduation rate was higher. It was 27.8 percent. This difference was statistically significant. The Financial Nexus model (Paulsen & St. John, 2002) implies that persistence goes through a three stage process. In the first stage, socioeconomic factors and academic ability are believed to affect a student's predisposition to pursue a college education and perception of financial circumstances. During the second stage the student estimated the costs and benefits associated with a particular institution that would entice the student to commit to enroll in college and further affect the decision to remain in college there. Within the context, financial aid would not only positively influence thoughts of matriculation but would also predispose the students to select a certain college. Once the student entered college, the third stage, college characteristics, college experiences and academic performance in college helped modify or reinforce educational aspirations. Positive social and academic experiences in college and an adequate academic performance reinforced or even enhanced the

students' perceptions of economic and noneconomic benefits associated with enrollment in and graduation from the institution. Financial aid was believed to positively affect persistence decisions by maintaining an equilibrium between the cost of attending college and the benefits to be derived from the attainment of an educational degree. Negative college experiences, such as increases in tuition, affected the benefits and pushed the student toward withdrawal. (Phillips, 2000). So it may appear that there is a lower graduation rate in the current model, but that doesn't mean that students may not have had the ability to pay their tuition according to the Nexus model. This also doesn't mean that the model didn't apply to this study, it only means that students weren't able to pay due to various circumstances, some beyond their control.

In comparison to other 2-year degree-granting institutions overall, 30 percent of first-time, full-time undergraduate students who began seeking a certificate or associate's degree in fall 2013 attained it within 150 percent of the normal time required for completion of these programs (an example of completing a credential within 150 percent of the normal time is completing a 2-year degree within 3 years). The graduation rate was 24 percent at public 2-year institutions and 60 percent at both private nonprofit and private for-profit 2-year institutions.

Listed in Table 10 are graduation rates of the five tribal colleges within the state of North Dakota. This information was from the IPEDS website. The table illustrates the graduation rates and number of completers for 2013. According to the IPEDS data, the graduation rate for TMCC in 2013 was 21.2 percent. This data demonstrates that TMCC still does not exceed the graduation rate of the early model – 2008-09 which was 27.8 percent. Keep in mind that this data includes all students that attended TMCC that were first time-full time. Therefore, it did not include second year students or part time students. So there will be a difference in percentages as far as graduation rates. The study only included students that were enrolled in a two-year program, and

followed them through for three-year time span. It could possibly be a whole different group of students that we are referencing as far as graduation rates are concerned. The table is provided only to show a comparison of graduation rates to other tribal colleges located in North Dakota.

Table 13. Graduation Rates of the Five Tribal Colleges Within the State of North Dakota in 2013.

Institution Name	Cohort year	Adjusted cohort	Number of completers	Graduation rate (%)
Cankdeska Cikana Community College	2010	26	4	15.4
Fort Berhold Community College	2007	42	13	31.0
Sitting Bull College	2007	52	6	11.5
Turtle Mountain Community College	2007	118	25	21.2
United Tribes Technical College	2007	153	27	17.6

At private for-profit 2-year institutions, for example, 61 percent of females versus 58 percent of males who began pursuing a certificate or associate's degree in 2012 completed it within 150 percent of the normal time required (Condition of Education, 2017) which is considerably higher than the tribal colleges.

Limitations

The study was conducted utilizing the data from one tribal college, TMCC. The fact that the school was a two-year tribal college accounts for some limitations of the study where the graduation rates are typically lower. The other limitation with the study is that the targeted group of students are only the students that enrolled in a two-year program. There is very little research

regarding tribal colleges, let alone a study specific to one tribal college. Consequently, readers of this study are made aware that results only pertain to the Turtle Mountain Community College.

Conclusions

In conclusion, the early model - 2008-09 shows that the graduation rate was higher than the current model -2011-12. According to the College Scorecard on the U.S. Department of Education's website, TMCC had a graduation rate of 22 percent in 2017. For the early model – 2008-09 the graduation rate was 27.8 percent. This demonstrates an even larger decrease in graduation rate for TMCC from the results of this study however in comparison to other North Dakota tribal colleges, TMCC has the second highest graduation rate. United Tribes Technical Collage had the highest graduation rate at a rate of 39 percent. TMCC was next highest with 22 percent, followed by Sitting Bull College with 12 percent, Cankdeska Community College with 9 percent and the lowest graduation rate belonging to Nueta Hidatsa Sahnish College in New Town, ND. All five tribal colleges fluctuate in graduation rates (IPEDS, 2018). Findings demonstrate that tribal college students at TMCC had higher rates of graduation on a less restrictive tuition model than the current model -2011-12.

Future Research

It is recommended that further studies at TMCC be done. Future research might include all students, not just the students enrolled in the 2-year programs. Future research might also include students who have not paid tuition and the reasons behind them. Maybe this study would assist the institution in developing a strategy for students with retention and persistence, and develop various avenues of financial aid, tuition waivers, and institutional work program to assist in paying their tuition expenses. Maybe after the current model – 2011-12 has been in place for ten years, a follow up study could be done to see if student and institutional outcomes have

significantly changed. From another perspective, a study of tuition and fees in comparison to other tribal colleges in North Dakota could prove to be effective when considering an increase in tuition and fees.

Implications for Practice Statement

If graduation rates are to be high, it must be an institutional priority supported by the institution itself as well as the community. It must be coordinated and it must be part of institutional research and planning efforts. It must be part of the strategic plan for the institution to show that benchmarks are being set in regard to graduation rates and making sure they are attainable. The institution must demonstrate to students the significance of financial aid and the role it plays in student success. Financial Aid can enhance student persistence particularly with respect to the opportunities available to the diverse community college student population (Lichenstein, 2014). Additionally, making more financial aid available to students attending community colleges and helping them to gain insight on how to access financial aid may assist in gains in student persistence (Fike & Fike, 2010) and better graduation rates.

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