Responding to the College Completion Crisis in New Mexico: A Case Study of the University of New Mexico

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RESPONDING TO THE COLLEGE COMPLETION CRISIS IN NEW MEXICO:
A CASE STUDY OF THE UNIVERSITY OF NEW MEXICO

by

Kalith A. Smith

A DISSERTATION

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Education

Major: Educational Studies
(Educational Leadership and Higher Education)

Under the Supervision of Professor Brent Cejda

Lincoln, Nebraska
May, 2019
New Mexico’s funding of higher education has facilitated student access to college and helped the state rank fourth nationally in college attendance rates. However, the state ranks 47th in the country in college completion rates. A majority of students who enter college in New Mexico do not complete their degrees, a situation which deprives the state of the highly skilled workforce that is necessary to attract and retain business and industry. While low-cost or free college has increased attendance rates, the low college completion rate has incited an economic crisis for the state. The state’s flagship institution, the University of New Mexico (UNM), has made strides to improve student completion rates and witnessed success over the last four years. The achievements of such efforts in their first year are well documented, but the specifics of the steps used to accomplish them have not received attention. The research employs a qualitative case study to explore the phenomenon at UNM. Thereby, it thoroughly investigates the programs at UNM that were designed to increase student persistence and completion. The study covers the Gardner Institute Initiative, named the First Year Steering Committee at UNM and other efforts implemented to address concerns in completion. To this end, it performs a document review, interviews, and observations, and considers nationally recognized best practices. The paper includes recommendations regarding the
applicability of programs and steps that may improve student graduation rates throughout the state.

Keywords: New Mexico, economic impact, case study, retention, accreditation, graduation rate
Table of Contents

Abstract ................................................................................................................................. ii

Acknowledgements ............................................................................................................... v

Chapter 1—Introduction ..................................................................................................... 1
  Purpose of the Study ........................................................................................................... 2
  Background ......................................................................................................................... 3
  Impact of Dropping Out ..................................................................................................... 5
  Opportunity Costs of Delayed Completion ....................................................................... 7
  Conceptual Framework ....................................................................................................... 7
  Research Questions and Study Design Overview ............................................................... 10
  Assumptions ........................................................................................................................ 13
  Delimitations ....................................................................................................................... 13
  Limitations .......................................................................................................................... 14
  Definitions .......................................................................................................................... 15
  Significance of the Study .................................................................................................... 17
  Summary ............................................................................................................................. 18

Chapter 2—Literature Review ............................................................................................. 19
  Introduction .......................................................................................................................... 19
  History of the University of New Mexico ......................................................................... 19
  UNM Demographics .......................................................................................................... 22
  Rankings and Classifications .............................................................................................. 22
  Conceptual Framework ....................................................................................................... 23
  Expectation .......................................................................................................................... 30
  Curricular and Co-curricular Support .............................................................................. 36
  Assessment .......................................................................................................................... 38
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Finally, to the students that this study strives to better understand. You go to college with high hopes and find out it’s a bit tougher than you expected. There is only one answer: FIGHT ON. EVERYDAY; Seek help, ask for guidance, talk to your professors, and see your advisor. Your voice is important. Only you have your perspective and your perspective makes our entire culture more rich and vibrant. Add your name to the list of alumni at your institution to make a better world for yourself and thus a better world for us all. The Acorn is a family poem passed from generation to generation that I often revisit when I feel daunted.
The Acorn: Author Unknown

Long ago in changeful autumn when the leaves were turning brown,
from the tall oak's topmost branches fell a little acorn down.

It tumbled by the pathway, a chance foot trod it deep,
in the ground where all the winter in its shell it lay asleep.

With the white snow lying and the frost to hold it fast,
till there came the mild spring weather, when it burst its shell at last.

First shot up a sapling tender scarcely seen above the ground,
then a mincie little oak spread its tiny arms around.

Many years the night dews nursed it, summers hot and winters long.
The sweet sun looked bright upon it while it grew up tall and strong.

Now it standeth like a giant casting shadows proud and high.
With huge trunk and leafy branches spreading up into the sky.

There the squirrels love to frolic, there the wild birds rest at night.
There the cattle come for shelter in the noontime hot and bright.

Child, when happily thou are resting 'neath the great oak's ample shade.

Think how little was the acorn whence the mighty tree was made.
Think how simple things and lowly have a part in nature's plan.
How the great have small beginnings and the child will be a man.
Little efforts work great action, lessons in our childhood taught.
Mold the spirit to the temple, whereby noblest deeds are wrought.
Chapter 1

Introduction

New Mexico’s strong college going rate is impressive, as 72% of high school graduates attend college. However, that number contrasts with the only 41% of first-time freshmen who actually complete a college degree. Moreover, of those students, only 14% complete their course of study on time (Damron, 2015). Strong recruitment is key to building a strong enrollment strategy; however, it is squandered without a strong retention policy and action (Tinto, 2012). New Mexico’s declining college enrollment over the past several years is due largely to demographic changes in New Mexico. Sal Christ (2015, p. 3), a reporter for the New Mexico Business Journal wrote, “New Mexico, in particular, was noted for having one of the biggest declines in college and university enrollment.” While first-time student matriculation is the initial indicator of the size of the student body, retention has an incredible and long-lasting impact on overall enrollment. A 2017 ranking of every state’s completion rate listed New Mexico in 47th place in college completion, which reflects only a slight improvement from its ranking of 49th in 2015 (Chronicle of Higher Education, 2017; Damron, 2015). The fact that many high school graduates begin college yet few complete signals a crisis within the state (Quintana, State Cuts, Fewer Students Put Higher Ed in Crisis, 2017). Nott (2015) has reported only 14% of students in New Mexico earn a bachelor’s degree within four years, while 41% graduate within six years. The University of New Mexico seems to have found a formula that makes a positive impact on first-year student success.

No other four-year public college in New Mexico has a higher four-year completion rate than that of the University of New Mexico (UNM). The university has
made impressive strides to increase the four year completion rate. Over the last four years, improvement in the graduation rates of UNM compares favorably to the national leader, Georgia State University. Former UNM Provost Abdallah has stated, “counting the just-completed summer session, the four-year graduation rate at the state’s largest university had topped 29%.” (Dyer, 2017) This figure reveals an increase in the four year graduation rate from 14.8% in 2012 – a record high since the collection of such information began 30 years ago. The efforts of UNM have focused on first-year success as well as first-to-second-year retention, and the strategy seems productive. Retention becomes even more important, as first year student enrollment at UNM dropped 17.6% from the fall of 2017 to the fall of 2018. According to the Albuquerque Journal (Dyer, 2018), “newly released breakdowns show UNM’s student losses are particularly acute among freshmen, creating what UNM’s admissions director calls a ‘four-year problem’ as the diminished class advances ahead toward degrees.”

Purpose of the Study

The purpose of this study is to examine the first-year programs at UNM to clarify how first-year experience initiatives contributed to the increase in first-to-second-year retention rate. The University of New Mexico has focused on the first year of college. This time is both transitional and foundational, as it involves the entry of new students into higher education. The efforts of UNM recognize that the foundation of college completion develops in the first year. Multiple studies have demonstrated that the first year of college is not only the most impactful year for college completion but also the time in which the majority of non-completing students drop out (Complete College America, 2014; Gardner, 2011; Tinto, 2012). The “first-year experience” encompasses an
The issue with retention at UNM was noted in an Albuquerque Journal article by Dyer (2017):

The school was in the midst of a major freshman fall off, with only 73 percent of the 2010 class returning in 2011. Abdallah and former UNM President Bob Frank implemented new programs and funneled more money into existing programs aimed primarily at keeping freshmen on track.

The University of New Mexico focused initiatives on improving graduation rates through tutoring, a streamlined curriculum, and an emphasis on advising. These efforts have resulted in an increase in the retention rate from 74% among the entering class of 2009 to 78% among first-year students in 2016 (UNM Office of Institutional Analytics, 2017). In addition, UNM has concentrated on first-year programs because fewer sophomores lead to fewer graduates (Dyer, 2017). Former Provost Abdallah explained:

I want people to know that these things will have an effect or are having an effect. You don’t see it immediately. You’re not going to see it this year. Today we don’t see it, in two years, we don’t see it. In three or four, that’s it. (Dyer, 2017)

**Background**

Historically, New Mexico has been financially supportive of higher education. The majority of direct funding for higher education in New Mexico derives from the Permanent Fund. This fund is the third-largest sovereign wealth fund in the nation and annually contributes $800 million to state operations (New Mexico State Investment Council, 2017). Additionally, the state has allotted 100% of its lottery revenue to scholarships (NM Lottery Scholarship, 2017). While the state has continued this investment, college enrollment has dropped by 10,000 students, representing a 10.3%
decrease from 2011 to 2016 despite a stable state population (Enrollment Reports, 2017; US Census Bureau, 2016). The reduced number of individuals who enroll in higher education has compounded the low college completion rate.

Higher education institutions in New Mexico have an impetus to address the college completion issue; the state adjusted the traditional funding structure, which was focused on inputs (enrollment), to a focus on outcomes (student first-year retention and graduation rates). Dr. Damron (2015) stated:

While the need is great, and state investments are high, higher education outcomes have been poor for decades. The state recognized a need to change the financial arrangement with its institutions of higher education and began allocating resources based on outcomes rather than inputs in an effort to improve performance (p. 1).

Dr. Damron has contended that state allocations should continue to shift toward outcomes-based allocations, which necessitates colleges and universities to improve their four-year graduation rates. In view of the lower enrollment and perceived oversupply, the New Mexico Higher Education Department has considered consolidating colleges and universities to permit more centralized oversight and has worked to enhance efficiency by combining operations (Quintana, State Cuts, Fewer Students Put Higher Ed in Crisis, 2017).

A negative economic impact also results from lower college graduation rates. New Mexico is significantly below the national average in its on-time college completion, so it has struggled to attract businesses that require a highly skilled workforce (New Mexico Workforce Solutions, 2015). In addition, New Mexico is
contending with unprecedented stagnation of its population, with only 1.1% growth between 2010 and 2016 after continual growth since gaining statehood in 1912 (Coleman, 2017). Factors that impact the economy and reduced population growth include an outflow of young professionals and poverty; in fact, 31% of New Mexicans live in poverty – the highest rate in the nation (Galvin, 2017). Research has predicted that 35% of jobs in 2020 will require at least a bachelor’s degree (Carnevale, Smith, & Strohl, 2014; Damron, 2015), which emphasizes the economic challenge that confronts the state.

To combat negative economic impacts, New Mexico needs to graduate more of its college students. This need for change is paramount to the future of the state (Pew Research Center, 2014).

**Impact of Dropping Out**

At some institutions in New Mexico, as few as 9% of first-time students will eventually graduate (Damron, 2015). New Mexico colleges and universities cannot retain students if they never enroll, and given the higher cost to recruit than to retain, the actions of each college, once students arrive on campus, is of utmost importance. The first year of college is imperative to student success, and some New Mexico colleges and universities have increasingly acknowledged this fact (Dyer, 2017). Success stories of students and families regarding their college experience affect word-of-mouth advertising, which in turn influences future enrollment (Lehmann, 2015).

First and foremost education impacts the lives of individuals. The Pew Research Center (2014) highlights differences among those who go to college but do not complete. In terms of median salary, those who attend but do not complete college earn only $2,000 more annually compared to high school graduates. Over the course of 40 years in the
workforce, the financial impact on students who complete some college translates $80,000 less in average lifetime earnings. Tinto (2012) has noted a more striking difference in average salaries, as students who have completed some college earned $30,000 per year, whereas graduates earned $45,500 per year. This disparity of $15,500 per year over the course of 40 years equates to $620,000 without raises during employment. Completing college is a tremendous benefit to New Mexico’s economy and workforce, which is estimated at approximately $1 million per graduate (Tinto, 2012).

Considering that 41% of students in New Mexico colleges and universities graduate within six years, an estimated 51,131 out of the 86,663 students who started college full time in the fall of 2016 will not graduate (Enrollment Reports, 2017; Nott, 2015). Considering the lifetime earnings of the entering class of 2016, the high rate of attrition would cost students – and, ultimately, the state – almost $32 billion ($31,701,220,000).

There is a well-documented positive economic impact of an educated populace on the state. Berger and Fisher (2013) have found a correlation between educational attainment and median wages in a state. Moreover, they have reported that these higher-salaried workers are valuable in the long term, for they contribute more revenue in taxes over the course of their lifetime. Additionally, states can attract high-wage employers with a more educated workforce. Recently, a new Tesla battery manufacturing facility that would have provided 6,500 sustainable jobs to the state opted for a location in Nevada rather than one in New Mexico. This decision was partly due to the lack of a trained workforce in the latter (Robinson-Avila, 2015).
Opportunity Cost of Delayed Completion

Dropping out is costly for students and the economy. However, taking longer than four years to complete a bachelor’s degree also generates additional tuition costs and other fees in addition to losing earning potential for the student. Only 14% of New Mexico college and university students graduate within four years (Nott, 2015). According to Complete College America (2014), the expenses of each additional year of college include $22,826 in attendance costs and $45,327 in lost wages, which impose a total cost per additional year of $68,153.

Conceptual Framework

The University of New Mexico reinvigorated its first-year program in an effort to improve four-year graduation rates. These efforts have at least partly contributed to UNM’s rank as one of the top universities in the nation in terms of improving its graduation rate. Georgia State University (GSU) has garnered national attention for its efforts and arguably has the highest increase in graduation rates (Kamenetz, 2016). GSU would not be a logical choice to study in relation to New Mexico’s college completion crisis due to its location and lack of any significant connection with New Mexico (Dyer, 2017). Additionally, New Mexico’s unique culture may play a role in the phenomenon that cannot be investigated outside of the state.

Institutional Action (2012), a work that establishes a framework for institutional consideration of retention as well as assessment of those efforts. Following these three models, the present research considers expectations, support, assessment, feedback and involvement in considering UNM’s process.

Tinto (2012) stated, “Nothing is more important to student retention than academic support, especially during the critical first year of college, when student retention is still very responsive to institutional intervention,” Student support services are critical to the success of all students but especially to that of students with remedial needs. In 2015, first-time freshmen in New Mexico’s public colleges and universities that were required to take at least one remedial class were as low as 24.9% at NMSU and as high as 69.6% at NMSU-Dona Ana. Even more remarkably, two colleges did not report any remedial students, and one reported a rate of only 4%. These data suggest that there is no need for remedial courses or there is a reporting error (NM Higher Education Department, 2017).

The program, “foundations of excellence in the first college year”, by the Gardner Institute highlights foundational dimensions that the organization identifies as key to first-year success. The foundations of excellence operate under four assumptions: namely the importance of following the institutional mission, a focus on the first year of college, systemic evidence, and the dimensions in their overarching consideration, which lays the groundwork for the dimensions themselves. The institutional mission is the “canvas” on which the institutional image is created (John N. Gardner Institute, 2017). Faculty-led adherence to the mission in all aspects of the institution is imperative to
maintain the focus of the institution (Gaff & Meacham, 2006). Hence completion of the first year of college has been proven to be crucial in the Gardner framework.

Complete College America (2017) has proposed “The Game Changers” for systemic reform to improve college graduation rates. These initiatives include the academic expectation of “15 to finish,” which suggests that students complete 15 credits per term and 30 per year. The math pathway identifies the goal of completing a math course in one’s first term as a student to prepare most effectively for the required math curriculum. It also prescribes co-requisite support, which assists students in completing co-requisite courses and reduces the demand for pre-requisite classes, which can extend the time that a student takes to graduate. The momentum year focuses on students finding success in the first year by meeting first-year benchmarks, becoming well informed, and making the optimal choices for their future. Academic maps and proactive advising guide students into plans that orient them toward on-time completion. Proactive advising also monitors progress and provides intervention when necessary. Finally, a “better deal for returning students” aims to foster a more welcoming environment for adult learners to complete their education within a short time frame (Complete College America, 2017).

These authors and organizations are at the forefront of college completion research. Despite differences in their overall approach to considering college success and the first-year experience, they present four primary commonalities.

Expectation:

Approaches widely identify the importance of student expectations regarding graduation and demands to complete college on time.
Communicating to students that they need to take 15 hours per term and set an on-time graduation goal is key.

Advising:

Advising students in their course selection is only one vital element of the advisor-advisee relationship. Schedules should be structured to ensure that students have the ability to enroll in their courses in sequence and with appropriate capacity to permit on-time graduation. Advisors should utilize early warning and other systems for intrusive advising. Furthermore, math placement and use of co-requisites can help students complete on time.

Curricular and co-curricular support:

First-year success depends on evaluating placement tests, providing co-requisites and academic support, and facilitating student engagement in the college community to encourage a sense of belonging. In addition, institutional characteristics, programs, and cultural frameworks must align to achieve on-time completion.

Assessment:

A thorough assessment process of coursework and programming is key to success. To make improvements, colleges must regularly evaluate the programs in place to confirm that they support on-time graduation and focus especially on the first-year experience.

Research Question and Study Design Overview

This research examines the issue of college completion in New Mexico – particularly the successes at UNM – with the guiding question, “which steps has UNM
implemented that have positively impacted first-year student retention and completion?”

In addition, the following sub-questions offer insight into the programs and processes in terms of their impact on first-to-second-year retention:

- How has UNM set and reinforced student expectations in the first year of college?
- How does UNM handle advising in the first year of college? Is it effective?
- How does UNM provide curricular and co-curricular support during the first year of college?
- How does UNM assess first-year student success programs?

Answers to these supporting questions will help to shed more light on UNM’s program and the specifics of its operation that support first-year student success.

This research considers three approaches to the qualitative case study, namely those of Yin, Stake and Merriam. These approaches provide guidelines for a qualitative case study; however, they differ significantly with respect to how they complete the research and understand the topic of study. Yin’s approach does not fit the model of this research, for its preliminary consideration is that “the boundaries between a phenomenon and context are not clear” (Yazan, 2015). In this case, the boundaries between the phenomenon and the context seem to be clear. Furthermore, the data gathering tools that Yin has utilized, such as archival records and physical artifacts, are not feasible for use in this study. Stake and Merriam have both offered approaches that are compatible with the study of UNM’s retention program. However, after a closer review, Merriam seemingly presents a more suitable choice for this particular study. While there are many positive attributes to Merriam’s approach, the primary differentiator that makes Merriam’s
framework a better fit is its focus on the situation that this dissertation aims to investigate: a program review that is a bounded phenomenon (Yazan, 2015).

To study the first-year program at UNM, this research performs a single case study of the university and its ongoing efforts that have positively impacted retention. A case study approach permits a detailed study of the unique phenomenon at UNM that seems to have contributed to the increase in first-year completion. This specific study addresses the first-year program that UNM implemented and clarifies the program and process.

For the case study, interviews, observation, and document analysis comprised the primary means of investigating the phenomenon. Interviews with UNM faculty and staff who are involved in the program were also held to learn more about their overall approach and subsequently consider the UNM program in view of such information. Moreover, the provost office staff and the Center for Academic Program Support (CAPS) staff were interviewed to explore the current state of activities and assessment and next steps for continual improvement (UNM First Year Experience, 2017). Interviews discussed the actions that UNM personnel took to improve, their efforts to answer the aforementioned questions, and which accomplishments they struggled to achieve. Environmental factors were considered to advance the understanding of the phenomenon accordingly. These factors include observations of hallways, classrooms, the library and other academic areas deemed conducive for interviews. Also, interactions between faculty, staff, and students allowed for deeper insight into attributes that may not be recognized as unique and thus might be neglected in the interviews. Finally, planning documents, reports, the Higher Learning Commission (HLC) report, and supplemental
materials as well as any documents from UNM were reviewed to extract supplementary information and fill knowledge gaps to facilitate a full study of the program. These processes provided the optimal opportunities for this research to produce a complete study (Yazan, 2015).

**Assumptions**

This study assumes that college completion will continue to provide a higher economic quality of life. The need for a highly skilled workforce is well documented (Berger & Fisher, 2013; Holzer, 2015; Honan, 2018) and is unlikely to abate in the future. Thus, college completion will continue to be a relevant issue for higher education throughout New Mexico. Institutional efforts at UNM have increased retention. However, this issue is extensive, and it is likely to take years to rectify in full (Christ, 2015; Damron, 2015). Success in the first year of college will continue to be imperative to college completion; the first year of college must be successful for a student to proceed to the second year and beyond (Complete College America, 2017; John N. Gardner Institute, 2017; Tinto, 2012). The significant increases in the percentage of college attendees in New Mexico has leveled off, but there is no indication that it will decline in the future (Christ, 2015).

**Delimitations**

This study applies a unique case study methodology, bringing together points from three theories on student success; thus, delimitations were set. The top-two schools in the state for retention; the New Mexico Military Institute (NMMI), a military boarding school and junior college, and St. John’s College, an elite private institution possess a particular nature and were thus eliminated. Instead, UNM was selected for its similarity
to other institutions in the state as well as its leadership in this area. The ability of the research to access UNM and its many linkages within New Mexico presents a novel opportunity for a national leader in college completion rate improvement to serve as a strong study within the state. Although Georgia State University has arguably registered a higher increase, it has no apparent linkages to New Mexico and is not likely to illuminate successful efforts to reverse the conundrum of New Mexico’s high college attendance and low college completion. Thus, the scope of the study is limited to the efforts at UNM. Accordingly, all reference documents, interviews, and other considerations concern UNM faculty, staff, and students; no other restrictions were applied to the study.

**Limitations**

The purpose of this study is to explore the phenomenon of college attendance versus college completion in New Mexico. Since UNM is located in Albuquerque – the state’s largest city – the findings may be biased toward urban students. Moreover, the Higher Education Department has no direct control over the governing boards, and several attempted statewide initiatives have faltered once the governor and secretaries changed. Furthermore, faculty and staff changes at UNM limited knowledge of the decision-making that prompted this new process. During the 2015-2016 school year, over 20,000 students took almost 50,000 dual-credit courses in New Mexico (Damron, 2017). The ‘dual credit or early college courses’ has changed which students are considered “first-year” college students. Students can enter colleges and universities with up to 60 college credits that are earned while they are in high school. While most colleges still count them as first year students for admission and scholarship purposes, in reality they enter the classroom as a junior in college while being the traditional age of a first year
college student. As a final limitation, the administration of UNM was in flux at the time of the study, as a new president was appointed in 2017, and a new provost will be hired in 2019, which was unexpected (Blair, 2017).

**Definitions**

- **Academic map**: a map provides a semester-by-semester pathway to graduation (Complete College America, 2018)

- **Center for Teaching and Learning (CTL)**: The Center for Teaching and Learning supports student learning at UNM. Offering services for undergraduates and graduate students, as well as workshops and confidential consultations for instructors who want to improve their teaching (UNM CTL, 2019).

- **College Assistance Migrant Program (CAMP)**: The CAMP program was established to identify, recruit, admit, and enroll migrant and seasonal farm worker students and provide them with academic, social, and financial support to enable the completion of their first year of college (UNM CAMP, 2019).

- **College Enrichment Program (CEP)**: CEP provides comprehensive student support services that assist students with their transition to higher education and attaining collegiate success. Programs focus on students who are 1st Generation, Low Income, and/or are from Rural Areas (UNM CEP, 2019).

- **Fifteen to finish**: a minimum of 15 credit hours per term and a total of 30 or more credit hours per year (Complete College America, 2018)

- **First-year programs**: programs and events that an institution conducts to enrich the student experience in the first year of college (Tinto, 2012)
First Year Steering Committee (FYSC): The committee that was established at UNM to carry out the Gardner Institute initiatives.

Four-year completion: the completion of college within four or fewer years (Complete College America, 2017).

Full-time enrollment: a minimum of 12 credit hours per term (Department of Education, 2018)

Gateway course: a pre-requisite course to be followed by one or more other courses that are required for graduation

Higher Learning Commission (HLC): HLC is a regional accrediting agency that accredits colleges and universities in a 19-state region of the United States that includes New Mexico.

Intrusive Advising: Intrusive Advising involves intentional contact with students with the goal of developing a caring and beneficial relationship that leads to increased academic motivation and persistence (Varney, 2007).

Land Grant Permanent Fund (LGPF): The Land Grant Permanent Fund (LGPF), also known as the Permanent School Fund, is one of the largest funds of its kind in the country, and every year provides more than a half-billion dollars in benefits to New Mexico’s public schools, universities and other beneficiaries ($638 million in FY17). Established through New Mexico’s entry into statehood in 1912, the LGPF has evolved and grown over time due to revenue from leases and royalties produced by non-renewable natural resources in New Mexico (primarily oil and gas), and income from returns on invested capital (NM LGPF, 2019).
• On-time completion: completion of college within six or fewer years (Complete College America, 2017).

• Proactive advising: monitors progress and provides interventions as needed; states, systems, and institutions can implement a framework and support systems that help students choose a path, maintain momentum on such a path, and ultimately complete their degree (Complete College America, 2018).

• The University of New Mexico: the main undergraduate campus of the institution; located in Albuquerque, New Mexico (UNM, 2018).

• TRIO: The Federal TRIO Programs (TRIO) are Federal outreach and student services programs designed to identify and provide services for individuals from disadvantaged backgrounds. TRIO includes eight programs targeted to serve and assist low-income individuals, first-generation college students, and individuals with disabilities to progress through the academic pipeline from middle school to post-baccalaureate programs. TRIO also includes a training program for directors and staff of TRIO projects (Federal TRIO Programs, 2019).

**Significance of the Study**

The importance of the first year of college is nationally recognized but is especially imperative in the state of New Mexico. If the state can improve its ranking in college completion on par with college sending rates, the results could be astounding. For New Mexico to thrive in the coming century as it did in the previous one, it is crucial that students not only attend college but also achieve success in that endeavor. While New Mexico’s decentralized system of higher education grants autonomy to campuses and systems, it may also produce discrepancies in practice that could result in wide
differences in completion rates in the state. By obtaining a clearer understanding of the success at UNM through the lens of the Foundations of Excellence program, other institutions throughout the state may develop more robust methods for student success in the first year of college, which would positively impact the four-year graduation rates in New Mexico. Moreover, this study adds to the body of knowledge with insights regarding the first-year experience and student success.

Summary

In order for New Mexicans to recognize the value of the higher education system, attendance and completion of higher education, as well as encouragement for graduates to remain in the state and build its future, it is necessary to enhance retention in higher education. The first year of college is critical to college success in view of its positive impact on graduation rates (Tinto, 2012). Despite predictions of stagnancy in the age of the college population in the coming decade, they do not imply that higher education must follow such a trend (US Census Bureau, 2016). By improving support for student success, New Mexico colleges and universities can maintain strong enrollment and facilitate positive word-of-mouth recruitment among constituents.

The state motto, “Crescit Eundo,” which translates to “it grows as it goes,” certainly applied to the first century of statehood. To ensure its ongoing accuracy over the next century, higher education must play a positive role. By focusing on student success in the first year, New Mexico’s higher education can remove the barrier that hinders graduation rates and cultivate an educated, quality workforce from the citizenry of New Mexico.
Chapter 2

Literature Review

Introduction

In this chapter, the literature review provides an overview of the University of New Mexico’s (UNM) history, enrollment, key institutional milestones, and rankings. It reviews literature that relates to college attendance in New Mexico, including the conceptual framework of Merriam that is applied to the case study of UNM’s work toward first-year success as a bounded phenomenon (Yazan, 2015). The chapter presents literature based on relevance to the main research question of this dissertation: “which steps has UNM implemented to positively impact student retention and completion?” The following sub-questions are addressed in the study:

1. Expectation
   a. How does UNM set and reinforce student expectations?

2. Advising
   a. How does UNM conduct advising? Is it effective?

3. Curricular and co-curricular support
   a. How does UNM provide curricular and co-curricular support?

4. Assessment
   a. How does UNM assess student success programs?

History of the University of New Mexico

Attempts to provide higher education in New Mexico were not successful until the late 19th century. Initially, there was little financial assistance for college, and only a small minority of New Mexicans took advantage of the opportunity. Nonetheless, college
access and attendance grew steadily in New Mexico from UNM’s foundation in 1891 until the New Mexico Lottery Scholarship assumed coverage of all tuition in 1996. Subsequently, the number of students attending college skyrocketed, culminating in a national fourth-place ranking for New Mexico in terms of overall college attendance (Lottery, 2018; NM Higher Education Department, 2017). Nevertheless, such increase in college access highlighted a crisis regarding college completion in the state, as the system helped students afford college, but only 29% of them complete a degree in the best case (NM Higher Education Department, 2017).

Establishment of UNM: While the concept of a university in New Mexico emerged around the time of annexation in 1846, culture and corruption largely delayed the establishment of the university until in 1889, when families in Albuquerque donated land to build the university, and the legislature established and funded the school (Davis, 2006). New Mexico was not early to add universities, “Although it is situated in one of the oldest colonial areas in the United States of America, yet it is one of the youngest state universities in the Nation” (Popejoy, 1952, p. 2). Public education in New Mexico was attempted several times, but only the establishment of UNM in 1891 seemingly set the stage for public education.

Enrollment Growth: Early growth in the university was slow. In 1914, 78 students were enrolled, and in 1919, the university employed 22 full-time faculty members (Popejoy, 1952). UNM education was generally accessible to only a small percentage of New Mexicans until the end of World War II, at which point the GI Bill broadened access to the university. In the years following the war, Albuquerque was the fastest-growing city in the country. In this regard, Davis (2006) explains:
Like universities throughout the country, UNM was unprepared for the flood of veterans in the postwar era. Early speculation was that few would take advantage of the G.I. Bill, as educators believed the veterans either were too old to return to the classrooms or would not make good students… Enrollment for the fall semester of 1946 at UNM was just 924. By 1949 it was 4,921.

Growth continued unabated and was buoyed significantly by the introduction of the lottery scholarship, which paid for all tuition of New Mexico residents who qualify starting in 1996 and continues to fund 60% of tuition in 2018 (Lottery, 2018; UNM Office of Institutional Analytics, 2017). In the 2017-2018 school year, 20,813 full-time equivalent status students were enrolled in college in New Mexico (UNM Registrar, 2018).

**Funding and Program Growth:** An initial lack of funds in the Territory of New Mexico initially contributed in stymying UNM’s growth. The Land Grant Permanent Fund (LGPF) was established by the Ferguson Act of 1893 and the Enabling Act of 1910 and added to these lands prior to statehood (NM State Investment Council, 2018). The discovery of oil near Hobbs, New Mexico in 1928 bolstered the LGPF, which has since grown to become the third-largest sovereign wealth fund in the country (American Oil and Gas Historical Society, 2018).

In 1917, UNM awarded the first master’s degrees in the fields of chemistry and Latin, and it produced its first doctoral graduates in 1947 (UNM Registrar, 2018). Today, the university enrolls over 24,000 students and offers 69 master’s degrees, four Masters of Fine Arts (MFA), and 38 doctoral degrees. Notably, the growth of UNM in the 1940s
and 1950s led to shortage in faculty and forced an increase in salaries to recruit faculty to teach the booming population (Davis, 2006; UNM Office of Institutional Research, 2018).

**UNM Demographics**

The University of New Mexico has a very diverse student body. In the fall of 2018, 24,393 students were enrolled, of those 56% are female and 44% are male. 43% of students are Hispanic, 35% white, 5% Native American and 5% international, 4% Asian, 2% African American and the remaining 6% are two or more races, unknown race and Native Hawaiian. (UNM Office of Institutional Research, 2018)

The faculty and staff are equally diverse. In 2018 of 3,436 employees, 55% are female and 45% are male. 46% of faculty and staff are White, 40% are Hispanic, 3% American Indian, 3% unknown, 2% African American and the remaining 6% are Asian, International, Native Hawaiian and two or more races. (UNM Office of Institutional Research, 2019)

In comparison, the faculty and staff at UNM are reflective of the student body and the diversity in students, faculty and staff are a testament to the rich culture of the State.

**Rankings and Classifications**

The Center for World University Rankings (CWUR) does not determine rankings on the basis of surveys or data that are submitted by universities; instead, it focuses on the quality of education and research. In 2016, the center ranked UNM in 82nd place in the US and 196th place globally (CWUR, 2018).

**Conceptual Framework**

According to Merriam (2009), “[a] theoretical framework underlies all research…a theoretical framework is the underlying structure, the scaffolding or frame of your study” (p.66). Thus, the theoretical framework is the orientation of the study as well as the lens through which all research is approached. Merriam (2009) adds that “…the things we observe in the field, the questions we ask of our participants, and the documents we attend to are determined by the theoretical framework of the study (p. 69).” To study the phenomena at UNM, the present research incorporates common concepts from three sources: the Tinto framework, the Foundations of Excellence framework, and the Complete College America framework. These three sources highlight current best practices in higher education and provide a standpoint from which to examine this phenomenon.

*The Tinto Framework:* In *Completing College: Rethinking Institutional Action,* Tinto (2012) asserts:

Students are more likely to succeed in settings that establish clear and high expectations for their success, provide academic and social support, frequently assess and provide feedback about their performance, and actively involve them with others on campus, especially in the classroom. (p. 8)
As this statement illustrates, Tinto has identified four – or, arguably, five – crucial elements for student success. While much of his work has focused on overall graduation rates, the present study refers only to his research that concerns the first year of college.

Setting clear and high expectations is essential, as students who attend college are not inherently informed of the rules, regulations, and requirements of degree completion. Receiving frequent, accurate, and appropriate advising improves the persistence rate of students, particularly among undecided students who need not only a roadmap of their expected progress but also assistance in determining an appropriate destination. Metzner’s (1989) study of 1,000 freshmen has found that positive advising experiences resulted in higher first to second year retention. Low-income and first-generation college students especially require help to select a major and outline future plans to encourage their retention. Institutions must also establish high expectations for students and communicate them to the students accordingly. Instilling such expectations throughout the institution is difficult; however, once it is accomplished, students can achieve more success (Tinto, 2012).

Remediation and remedial courses have increasingly directed attention to the learning gap between high school graduation and college readiness (Butrymowicz, 2017). Tinto (2012) has emphasized, “Nothing is more important to student retention than academic support, especially during the critical first year of college, when student retention is still very responsive to institutional intervention.” Self-efficacy and performance impact student success, as they encourage students to view themselves as successful in their environment. Also, retention is impacted by social support and a sense of belonging. Sunleaf’s (2013) study entitled “First to Second Year Undergraduate
Student Retention at a Small Midwest Four-Year Liberal Arts College” has reported that a sense of belonging that is fostered through personal relationships and social community had a statistically significant impact on retention. Meanwhile, Coats (2014) has studied the first-year experience and its relation to retention at community colleges. The study has revealed that first-year programs at commuter colleges were more impactful, compared to programs at highly residential campuses. Although UNM is not a community college, it is a commuter campus and is thus consistent with the Coats (2014) study, which has suggested increased bearing on the first-year success of students in first-year programs at commuter colleges. Fulcomer’s (2003) study, “The Influence of the First-Year on First to Second Year Retention at a Small, Private College,” has similarly found that student retention relates to academic achievement. Moreover, it has highlighted the importance of student satisfaction as well as the benefits of a student work program to facilitate student success. In an effort to academically support students, colleges and universities have implemented an abundance of academic support programs, such as those of UNM that include: first-year seminars, supplemental instruction, learning communities, basic courses, social support programs, and financial assistance can all contribute to student support.

Assessments of student ability, performance, and growth have occurred since the commencement of education a millennium ago. Today, assessment remains a cornerstone of quality education. In addition, modern tools and abilities can track more student data than was possible before the advent of computers. Once students begin college, they are subject to assessments ranging from home-grown placement exams to formal programs from various providers. Such initial assessments inform course placement as well as the
skill level of students. Classroom assessment creates “feedback loops,” wherein students and faculty both assess and improve throughout and across courses (Yao & Grady, 2005). Colleges also utilize early warning systems to provide timely feedback to faculty and academic support personnel when a student falls short of expectations. Assessment and course redesign have been noted as a way to increase student success. Finally, evaluating the student experience yields important feedback, particularly in relation to student performance (Tinto, 2012).

Research has demonstrated that involvement in the classroom and on campus – especially that of first-year students – is critical to success in college (Astin, 1984; Tinto, 1975; Tinto, 1993). It is a foundation that propels future involvement and engagement in subsequent years of college (Tinto, 2012). Each college or university serves a unique student body, and a sense of belonging is an important part of overall student success. Engagement in the classroom is also key; a change from traditional lectures to more interactive formats has especially improved learning, as students applied the classroom lesson to successfully complete assignments (Brewer, Ebert-May, & Alfred, 1997). Learning communities and service learning are also vital to student involvement. To adjust the culture to embrace change and promote faculty involvement, the development of faculty is imperative. Events can be unpopular, so such shift demands professional development that is geared toward redirecting the pedagogical approach from a traditional lecture course to a more interactive one.

Tinto’s work has informed the themes of other dissertations, including that of Fortune (2015), which used Tinto’s (1987; 1993) student departure theory as a framework for voluntary student departure. This work has also noted the inverse effect
and created a framework for student persistence and retention. Tinto’s breakthrough theory informs that colleges and universities at that time interpreted departure as the student’s failure and gave little to no consideration to the ability of the institutions to more effectively support students. This initial theory notes academic and social integration as the keys to student success. Many of the thoughts that informed *Completing College: Rethinking Institutional Action* are deeply rooted in student departure theory. Given the purpose of this study, the theory identifies institutional action as key, as the focus is not on individual students but rather the program that UNM has implemented.

**Gardner Institute Foundations of Excellence Framework:** The foundational dimensions consist of a first year college student and a transfer student focus, as well as a two-year and a four-year focus. Based on the use of UNM as the setting for this dissertation project, this paper considers only the first year student, four-year college orientation. According to the Gardner Institute (2017), the foundations have four assumptions:

1. The academic mission of an institution is preeminent.
2. The first college year is central to the achievement of an institution’s mission and lays the foundation for building an undergraduate education.
3. Systematic evidence provides validation of the dimensions.
4. Collectively, the dimensions constitute an ideal for improving not only the first college year but also the entire undergraduate experience.

The Gardner Institute Foundations relate nine dimensions: philosophy, organization, learning, faculty, transitions, all students, diversity, roles and purposes and improvement.
In philosophy, the objective is to clearly explain the rationale, disseminate it widely, and implement it as a guiding force behind institutional policies and procedures. The organizational structure should facilitate first-year initiatives as well as cooperative efforts between offices on campus. Intentional curricular and co-curricular experiences that are engaging and encourage students to grow and achieve the desired outcome can occur both within and outside of the classroom and enhance a sense of belonging. The first college year is a priority for the faculty, in addition to changing the cultural biases within the institution that may work against first year success. Policies and practices that align with institutional mission and serve the needs of all first-year students facilitate student transition. Foundational institutions expose students to diverse ideas and worldviews with the goal of preparing them to become global citizens. They also teach students about higher education, its significance, and its place in the world. Finally, assessment of courses and programming is crucial to maintain continuous quality improvement in the first college year (John N. Gardner Institute, 2017).

The Gardner Institute’s Foundations of Excellence in the First Year of College have provided a foundation for Malaski’s (2014) dissertation, “The Perceived Impact of the Foundations of Excellence in the First Year of College Project.” Malaski extensively utilized the framework to consider its impact on institutions of higher education. According to the results, all nine of the foundations were effective to some degree.

**Complete College America Game-changers Framework:** Complete College America was founded in 2009 as an initiative in alliance with interested individuals, states, and organizations that work together to help students achieve a college degree. Complete College America (2017) indicates major barriers to achievement, including low
credit enrollment, poor remedial education, unclear choices, a system that disregards the balance of education with work and family, high costs, time impediments, and low graduation rates. Complete College America has proposed a framework of six components:

1. A strong start (a focus on the first college year)
2. Fifteen to finish (students averaging courses of 15 credits per term to stay on track to graduation)
3. Maintain momentum (continuing to work with students to maintain progress beyond the first year of college)
4. Academic maps and proactive advising (designed to maintain student progress toward achieve their objective and on-time graduation)
5. Redesign systems (changing systems that hinder or prevent students from succeeding in college)
6. More incentives for returning adults (creating ways to be more flexible and understanding of adults who return to college)

The focus of Complete College America is clear: to set expectations, maintain student progress, provide a coursework plan with which they can graduate, and change aspects that are not working in order to achieve the objective of increasing graduation rates. The focus on a strong start in the first college year is important in the context of this study, as it accounts for many of the steps that UNM has taken. For example, students are encouraged to accumulate enough credits, and faculty and staff compose effective gateway courses, refine remedial courses, and create a roadmap with which
students can visualize a feasible path to on-time completion (Complete College America, 2017).

The strategies of Complete College America constitute the core of the framework that this study utilizes to evaluate the program at UNM. Rogers (2015) has also discussed these strategies in her study of the first year of developmental students, which examined their re-enrollment after placement in multiple remedial courses (Complete College America: About, 2018). The state of New Mexico has adopted the overarching Complete College America Framework (Complete College America, 2018).

Once all frameworks were considered together, three shared foundational elements emerged: expectation; curricular and co-curricular support; and assessment.

**Expectation**

Students go to college with a certain set of expectations that may or may not be the reality of their college experience. Building student expectation in not only attending college, but what to expect once they arrive are important to retention and graduation.

**New Mexico College Attendance:** In the report “Immediate College Enrollment Rate” (2018), the National Center for Educational Statistics (NCES) indicates an increase in the national rate of college attendance of high school graduates in 2016 to 70%. In addition, the report highlights a significant disparity between students from high-income families, who attend at a rate of 83%, and the 67% of students from low-income families who attend. New Mexico is a poor state, as approximately 20% of families live in poverty and the per-capita income is just $24,459, which suggests the state would also measure a low college attendance rate (National Center for Educational Statistics, 2018).
College in New Mexico is the most affordable in the nation (Nott, 2018), in part because of the lottery scholarship (NM Lottery Scholarship, 2017). In 1996, New Mexico implemented a statewide lottery with the intention of using revenue from the initiative to fund college scholarships. Studies reveal that, only 66,076 (56.7%) of students who qualified for the scholarship ultimately graduate from college (Lottery, 2018). In this program, the ability to fund the scholarship directly correlates with lottery sales in the state (NM Lottery Scholarship, 2017). A drop in lottery sales caused the payment of tuition to drop to 60% for qualifying students. To qualify, students must meet certain eligibility requirements that are included in Appendix F. The scholarship has provided $769.8 million in financial assistance and funded 116,531 student scholarships.

The resulting affordability may correlate with New Mexico’s high college attendance rate positions the state in fourth place nationally despite its lack of wealth (Damron, 2015). In the fall of 2016, the main ethnic groups in the state, namely White and Hispanic, registered no statistical difference in their college attendance rates, and no gender differences were apparent (National Center for Educational Statistics, 2018). Despite a high percentage of students attending college in New Mexico, the state ranks 47th in graduation rates. The disparities in two- and four-year completion rates among schools are stark. Northern New Mexico measures a 9% on-time completion rate, while NMMI reports a rate of 42%. Meanwhile, the figure for UNM is 35%, a percentile that constitutes the second-highest rate in the state as well as the highest of the public four-year schools (NM Higher Education Department, 2017). Although spending per completion is $67,306 and thus above the national average, only 18.3% of New Mexico college students graduate, whereas the national rate is 21.5% (Complete College
America, 2018). This low return on investment hinders not only student progress but also the economy of New Mexico (Berger & Fisher, 2013; Coleman, 2017; Galvin, 2017; Holzer, 2015; Honan, 2018; New Mexico Workforce Solutions, 2015; Robinson-Avila, 2015). Dr. Damron, the former Secretary of Higher Education and a Complete College America board member, introduced the steps proposed by the group to higher education in New Mexico, and received mixed results. Five colleges and universities are presently implementing the Complete College America recommendations. This represents an accomplishment in the decentralized system of higher education in New Mexico. Nevertheless, these efforts may be short-lived as a new Governor and Secretary of Higher Education take office and their initiatives have not been outlined at the time of this dissertation (Complete College America, 2018).

**Economic Impact of College Completion:** Common themes in the current rhetoric include the belief that the cost of college is excessive, and the outcomes are sometimes not worth the resources and effort. However, Maxfield (2018) has noted that the investment in education is recovered in the first 10 years of employment on average and yields an equivalent median financial return 15% annually.

Carnevale, Smith, and Strohl (2014) have projected growth in the U.S. economy from 140 million to 165 million jobs by 2020. Moreover, 65% of those jobs are anticipated to require post-secondary education. In addition to the 25 million new jobs, 31 million Baby Boomers are expected to retire, an outcome that is estimated to create 55 million job openings. Projections illustrate that the US will fall short of the anticipated need by 5 million workers. The fastest-growing sectors include healthcare as well as science, technology, engineering, math (STEM) and professional and community
services, which require extensive post-secondary training. While 35% of jobs will likely require a bachelor’s degree, it is equally important to note that a high school diploma will only suffice for the educational requirements of 36% of jobs.

In a report titled, “A Well-Educated Workforce is Key to Economic Prosperity,” Berger and Fisher (2013) have argued that education is the most reliable way to positively impact the economic prosperity of a state. A substantial majority of high-wage states have a highly educated workforce, and there is a clear and strong correlation between educational attainment and median wages. The most substantial step that a state can make to advance the economic prosperity of their citizenry is to provide access to higher education for all residents. A state benefits more from investing resources in education than by competing with other states for large private investments, such as the Tesla plant that New Mexico pursued and the Facebook site that the state attained. Berger and Fisher (2013) ultimately found that state investment in education produced more innovation, higher wage earners, and higher taxes.

According to Complete College America (2017), taking longer than two years to complete an associate’s degree or four years for a bachelor’s degree decreases the likelihood that a student will complete a degree and increases cost and indebtedness for students even if they do complete it. The Complete College America has provided five “game changers” to maintain student progress. First, students must clearly understand the need to complete 15 college-level credits per term to stay on track to an on-time graduation. Second, they should be enrolled in math courses in their first year to ensure they can successfully complete the courses required for graduation. Third, institutions should provide co-requisite support to students who do not meet the requirements to take
the college-level course in English or math. Fourth, students need strong momentum in their first year coupled with robust and ongoing advising throughout their education to ensure steady progress toward on-time graduation. Finally, academic maps that provide a clear path to graduation and proactive advising are important to keep students on track.

Concern regarding the first-year college experience – particularly in relation to college completion across the country – is spurring action. Efforts to improve the first-year success rate heavily correlate with student success and college completion. According to Tinto (2012), “[t]he first year…has long been recognized as a key period in student learning and retention…Yet it is the period in which student attrition is typically the highest” (p. 97). Klein (2013) has found that early orientation and enrollment in the first-year experience course alone increased subsequent term enrollment and identified grade point average (GPA) as a significant predictor of retention. In New Mexico, the first-year drop-out rate is exacerbated by the high percentage of students who attend college but are not prepared to succeed in their first year (Dyer, 2017). The University of New Mexico has made laudable progress, as evident from five years of growth in first year student retention apart from a slight decrease to 78.2% in the 2016-2017 school year (Dyer, 2017). Such growth is likely influenced by several known factors, such as a streamlined curriculum as well as additional tutors and support, as over 40% of UNM freshmen use its services. Nevertheless, some factors remain unknown, but consideration of the efforts at UNM may help to clarify the phenomenon.

All New Mexico public colleges and universities have been impacted by the New Mexico Lottery Scholarship Program (Lottery, 2018). This program was launched in 1996 and covered 100% of tuition charges for New Mexico residents who qualified at
that time (Appendix E) and attend a New Mexico public higher education institution.
However, requirements for the award include a 2.5 GPA, and students must attend a two-
year college full time or enroll in 15 hours at a four-year institution (Legislative Lottery
Scholarship, 2018). This initiative buoyed enrollments across the state upon its inception,
but the recession of 2008 induced cuts in higher education in New Mexico, which were
the highest per capita in the nation between 2008 and 2013 (Children, 2013). Coupled
with these cuts was a “raid’ on the trust fund that backed the lottery scholarship and
subsequent cuts in awards. Early in its operation, the lottery scholarship program was
credited with rapid growth in enrollment at UNM and, more specifically, with benefitting
minority and low-income student attendance (Uyttebrouck, 2004). Notwithstanding the
benefits, the cost was too high, and changes were necessary to support the program when
lottery revenues did not meet expectations. Those changes resulted in a reduction in
tuition paid to 90% in 2014 and 60% from 2016-2017 to present (Cole, 2014; Sanchez &
White, 2018). According to UNM’s 2006-2007 Common Data Set (UNM Office of
Institutional Research, 2006-2007), the six-year graduation rate for the cohort that
entered in 1999 was 41%, while that of the 2000 cohort was 43%.

Damron (2015) has noted the discrepancy between the state’s seventh-place
national ranking in higher education spending per capita and ranking of 47th in graduation
rates. The resources that are allocated to higher education are important, but money alone
has not corrected the problem of low first-year success. Eagan and Jaeger (2009) have
found that students were less likely to be successful when engaging with part-time faculty
members than with full-time, tenure-track faculty. Although their research was limited to
community colleges, its findings impacted the experience from part-time faculty to student engagement in addition to direct intervention.

**Curricular and Co-curricular Support**

According to Greenfield, Keup, and Gardner (2013), prioritizing spending on the first year of college has yielded positive results. In addition, while a shift to high-impact first-year pedagogies requires resources and often a cultural shift on campus, the results are more substantial when such interventions take place earlier in the higher education of students. Throughout higher education, instruction has shifted from a teacher-centric approach to a student-centered learning method. The aforementioned authors have reported that over 45% of colleges and universities offered a summer bridge program to assist students in transitioning to college. Such programs help students overcome common barriers to college success, such as the following:

1. Lack of self-confidence
2. Unrealistic and inappropriate expectations
3. Low levels of interaction with faculty
4. Uninformed or inexperienced pre-college support groups, most notably family
5. Poor integration and connection to the campus community
6. Underdeveloped academic skills

Greenfield, Keup, and Gardner (2013) stressed the importance of new student orientation, advising, first-year seminars, learning communities, residential learning programs, developmental education, early-warning systems, and peer leadership. Moreover, they have presented a clear path to implementation of these activities. The
present research does not discuss their focus on probation initiatives at the end of the first year and in the transition to the second year, as they are outside the scope of the study.

The success of under-served students is crucial in New Mexico. In this regard, Kuh (2008) has identified “compensatory effects” of higher grades as well as higher first-year success. The study also illustrates that adding in engagement measures accounted for an additional 13% of the variance in first-year GPA, resulting in an explained variance of 42% in the study. The findings highlight that past academic performance was a strong indicator, but student engagement can help in moderating its impact. The study quantified every percentage increase of standard deviation in “engagement” to correlate to a .04-point increase in GPA. Although small, this impact proved significant and is particularly relevant to student success among those with lower incoming GPAs. For educationally purposeful activities, the increase in GPA was found to have a stronger impact on GPA among students with lower incoming academic indicators (i.e. ACT, GPA). Additionally, the study reveals a correlation between the ACT scores of students, the hours per week that they study, and their GPA. Moreover, it demonstrates a direct correlation between the number of hours of study and first-year GPA. Statistically, students with an average ACT score of 20 raised their GPA by .08 points by increasing their study time from five or fewer hours to more than 21 hours. In summation, students who are motivated and assume responsibility are more invested in the school as well as in their college experience.

Complete College America (2017) has reiterated and simplified results of other studies (Greenfield, Keup, & Gardner, 2013; John N. Gardner Institute, 2017; Tinto, 2012) and has indicated that implementing a streamlined curriculum, tutoring, impactful
advising, study groups, and other techniques can influence first-year success. The program promotes five “game-changers” that define the progress toward graduation. Its objective is to designate a path for students that provide a holistic perspective of expectations of their college career and the steps that will result in graduation. Furthermore, it challenges higher education institutions to eliminate pre-requisites and develop more co-requisites. The first “game-changer,” “15 to finish,” promotes explicit clarification to students that they must complete 15 hours of college-level work each term to stay on track to an on-time graduation. The second built a math program that addresses student needs for their respective programs of study, which ensures completion of the necessary math gateway course in their first year. Such initial steps generated strong momentum to advance students successfully into the remainder of their education. The goal of proactive advising and effective support services through to graduation aimed to improve five- and six-year graduation rates. Finally, Complete College America has added a program for returning students, but as this study focuses on the first college year, this program was not considered.

Assessment

Assessment is a traditional requirement of external accreditation, but the assessment of programs and advising is a more recent development. The National Academic Advising Association (2018), which was founded in 1979 and now over 10,000 members, has presented a set of core competencies that are designed to establish, guide, and assess academic advising (Miller & Thurmond, 2018). The organization has synthesized previous research particularly that of John Gardner and the Gardner Institute (2018), to create a cooperative agreement among the groups that follow the National
Association for College Academic Advising (NACADA) core competencies and align well with the Gardner Institute’s Foundations of Excellence. The two organizations have collaborated to produce the new core competencies and, as a result, a comprehensive list of criteria. The criteria offer both a framework and an assessment tool for the success of programming and advising. The core competencies comprise three primary categories: conceptual, informational, and relational. These categories are further divided into sub-categories, which outline the basis of a high-quality advising program.

I. Conceptual
   a. The history and role of academic advising in higher education
   b. The Core Values of Academic Advising of NACADA
   c. Theory that is relevant to academic advising
   d. Academic advising approaches and strategies
   e. Expected outcomes of academic advising
   f. Creation of equitable and inclusive environments

II. Informational
   a. Institution-specific history, mission, vision, values, and culture
   b. Curriculum, degree programs, and other academic requirements and options
   c. Institution specific policies, procedures, rules, and regulations
   d. Legal guidelines for an advising practice that include privacy regulations and confidentiality
   e. Characteristics, needs, and experiences of major and emerging student populations
f. Campus and community resources that support student success

g. Information technology that is applicable to relevant advising roles

III. Relational

a. Articulation of a personal philosophy of academic advising

b. Development of rapport and academic advising relationships

c. Inclusive and respectful communication

d. Planning and conduct of successful advising interactions

e. Promotion of student understanding of the logic and purpose of the curriculum

f. Facilitation of problem-solving, decision-making, meaning-making, planning, and goal-setting

g. Engagement in ongoing assessment and development of the advising practice

The Nine Conditions of Excellence in Academic Advising link success in advising to these criteria. These conditions are part of the Excellence in Academic Advising (EAA) cooperative and are presented for consideration by schools. The nine conditions can be implemented individually by the schools, but the program is intended to provide additional experience with outside peer reviewers, albeit at substantial cost to the institution. These nine criteria form a strong basis for assessment, but the extent of their implementation or consideration is uncertain and subject to discussion in this research.
Campbell and Nutt have noted that:

> when viewed as an educational process and done well, academic advising plays a critical role in connecting students with learning
opportunities to foster and support their engagement, success, and the attainment of key learning outcomes…In this way, academic advising supports key institutional conditions that have been identified with promoting student success.

As one of the first researchers to investigate the area of academic advising and student success, Tinto (2012) has corroborated this process. His work has revealed that facilitating student involvement in the educational process is important and most effectively achieved by establishing expectations, extending support and feedback, and, when they underperform, guiding them in a direction that encourages success and ultimately completion.

**Summary**

The state of New Mexico is challenged with embracing an amalgam of cultures and helping students from such diverse backgrounds succeed in college. The University of New Mexico has long been at the heart of educational activity in New Mexico, and the university’s history has guided the state. In addition, the literature has identified the significant history of UNM as a foundation for the university’s current process.

The literature regarding college attendance in New Mexico refers to impacts on the history of college attendance and it has considered reasons for the fluctuations and current trends. The literature is useful to understand the current crisis in the state, including its development as well as its impact by the lottery scholarship. Moreover, the literature offers insight into students in New Mexico and the impact of the current climate on their ability to succeed in their first-year experience.
To clarify the framework, the bounded case study utilizes relevant literature, especially that regarding Merriam’s approach. Such literature also explains the limitations of the research framework and study (Yazan, 2015).

Literature that explores how UNM provides support to first-year students to encourage and support their success has addressed the latest guidance for the components of student expectations as well as how to set and guide realistic expectations. Literature on the effectiveness and assessment of advising does not present the longevity of that on other topics; however, it includes the latest discourse concerning how to implement and assess programs, particularly in relation to advising.

Curricular and co-curricular support can be difficult to quantify, and the literature on the topic is less rich. Nevertheless, the available studies have emphasized the importance of such support for all students, though particularly those who are less academically prepared. Various studies have demonstrated that student involvement and integration into higher learning institutions have a significant impact on student achievement and are critical to a successful first-year experience.

Literature on the assessment of student programs – particularly in relation to advising and first-year experience – affords a path to assess student outcomes. Program review, including that of advising, is presently a key portion of the external accreditation process in higher education. Data-driven assessment is the most effective means to determine the source of a student’s lack of success, and the literature on assessment provides strategies to complete such evaluations.
Chapter Three

Methodology

This chapter reintroduces the research topic and reviews the purpose of the UNM-based study. It expands upon the rationale for using a qualitative case study design and includes a description of the participants’, interview questions, data collection procedures, and instrument design.

Restatement of the Problem

It is concerning that New Mexico ranks 47th nationally in college completion rates (Complete College America, 2018; Damron, 2015). Despite the high number of New Mexico high school students who seek higher education, earning the state a fourth-place national ranking, the success of students after their entry into college is far from guaranteed; in fact, only approximately one-third of those who enter ultimately attain a bachelor’s degree. Previous studies have demonstrated that the first year of college is especially critical to degree attainment, as it lays much of the groundwork for college completion (Barefoot, Gardner, & Upcraft, 2005; Complete College America, 2018). The University of New Mexico has initiated efforts to support degree completion by focusing on the first-year experience and student retention from the first to the second year (Dyer, 2017). These efforts have improved retention rates and contributed to a broader strategy for raising completion rates. According to internal data of UNM, third-term enrollment increased from 74.1% in 2010 to 80.1% in 2015. During this time frame, various initiatives were implemented to encourage third-semester retention; such efforts and their results form the basis of this study (Dyer, 2017; UNM Provost, 2017)
Purpose Statement

In a state with a dismally low college completion rate, the first year of college is even more decisive than studies have indicated (Complete College America, 2014; Gardner, 2011; Tinto, 2012). After only 73% of the class that entered in 2010 returned in 2011, the university shifted its focus to the first-year experience in order to impact first-year retention, both very influential on graduation rates. To this end, UNM implemented several strategies to support first-year retention; including tutoring, a streamlined curriculum, and an emphasis on advising. The focus on first-year programs was applicable since lower first-year retention has a direct impact on graduation rates (Dyer, 2017). These efforts have yielded an increase in first-year retention, as the entering class of 2009 registered a rate of 74%, while this figure rose to 78% in 2016 (UNM Office of Institutional Analytics, 2017).

This qualitative case study analyzes UNM’s first-year college experience program. To this end, it conducts a bounded case study to identify strategies that UNM has implemented. To gain the relevant knowledge to clarify this bounded phenomenon, the research questions pursue insight into the strategies used by UNM.

Considerable research has supported the influence of the first-year experience on student success (Astin, 1984; Barefoot, Gardner, & Upcraft, 2005; Complete College America, 2018; Greenfield, Keup, & Gardner, 2013; John N. Gardner Institute, 2017; Tinto, 2012). However, scant research and no dissertations have addressed the first-year college experience program or its impact on student success at a New Mexico institution. The University of New Mexico has dramatically improved first-year success and graduation rates (Damron, 2015; Dyer, 2017; UNM, 2017; UNM Office of Institutional
Analytics, 2017). Still, no studies have investigated the program that has impacted such change. Data suggest that the improvement is valid and reflects an increasing trend at UNM, but no research has examined the phenomenon to answer the primary question of “how has the first-year experience program increased freshmen-to-sophomore retention?” The guiding question is addressed through four sub-questions that aim to characterize the program.

First, the framework suggests that explicit student expectations which are reinforced through multiple avenues are imperative to initial student success (Complete College America, 2017; John N. Gardner Institute, 2017; Tinto, 2012). Therefore, the first sub-question asks, “How does UNM set and reinforce student expectations?”

Second, effective first-year advising is key to first-year persistence. Such advising includes ensuring that students take the appropriate courses and enroll in enough credits to proceed toward graduation. Moreover, a personal relationship between students and an adult on campus can increase student success (Campbell & Nutt, 2008; Complete College America, 2017; Hunter, 2006; Metzner, 1989; National Association for College Academic Advising, 2018). Therefore, the second sub-question is, “how does UNM handle advising, and is this approach effective?”

Third, research has widely acknowledged curricular and co-curricular support as crucial for student success, especially in the first year of college (Astin, 1984; Barefoot, Gardner, & Upcraft, 2005; Hunter, 2006; Kuh G. D., 2008; Tinto, 2012). Therefore, the third sub-question is, “how does UNM provide curricular and co-curricular support?”

Fourth, assessment is vital across both curricular and co-curricular programs and throughout higher education. Determining the success and future viability of efforts is a
best practice and required by accrediting agencies (Greenfield, Keup, & Gardner, 2013; HLC Board of Trustees, 2018; Hunter, 2006; John N. Gardner Institute, 2017; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Tinto, 2012). Therefore, the fourth sub-question asks, “how does UNM assess student success programs?”

Epistemological Paradigm

According to Creswell (2013), researchers apply the pragmatic worldview to “try to get as close as possible to the participants in the program being studied. Therefore, subjective evidence is assembled based on individual views” (p. 20). This study aims to illustrate the current state of the first-year experience at UNM by utilizing all reasonable means to achieve a pragmatic worldview (Creswell, 2013, p. 28). By interviewing the leaders of the program and considering data regarding student retention trends at UNM, the researcher worked toward becoming an “insider,” as Creswell (2013, p. 21) has advised. Pragmatism considers the world “as it is” rather than through any particular lens or laws of nature. The goal of pragmatism is to determine the truth about a topic of research with the freedom to choose the optimal means within legal and ethical bounds (Creswell, 2013, p. 28).

Rationale for Qualitative Research Method

The researcher considered a quantitative, qualitative, and mixed approach for this study. Initially, a mixed approach appeared to be the most appropriate option; however, after determining a feasible scope for the dissertation, interest in the actions that were taken to achieve the improvements were deemed more important than the portions of the case study that would have warranted a quantitative approach. The University of New Mexico provided extensive data regarding student success that illustrate the effectiveness
of their programs as well as an increase in first-year retention and ultimate completion rates (UNM Provost, 2017). However, the situation in New Mexico and UNM is more complicated than the data may suggest. In an interview with former UNM Provost Abdallah (personal communication, 2018), he referred to the data as evidence that the university could simply increase their admission standards to an ACT score of 30 and a GPA of 3.5 to achieve success rates that would rival those of the highest ranked colleges in the country. As an additional result, the entering freshman class would contain fewer than 500 students, which would undermine UNM’s institutional mission:

[The University of New Mexico] will provide students the values, habits of mind, knowledge, and skills that they need to be enlightened citizens, to contribute to the state and national economies, and to lead satisfying lives.

(UNM System, 2018)

This bounded case study employs Merriam’s (2009) qualitative case study framework. According to Merriam (2009), qualitative research consists of “the search for meaning and understanding, the researcher as the primary instrument of data collection and analyses, an inductive investigative strategy, and the end product being richly descriptive.” Thus, a qualitative case study is applicable to study particularly complex social issues. Conducting a case study offers a rich perspective of the social aspect of study. However, it is time consuming to achieve a highly descriptive outcome through this approach. Critical qualitative research investigates and critiques society to instigate change. Stake (2005) has noted three types of case studies: intrinsic, instrumental, and collective. Merriam (2009) defines an instrumental case study as a study that “is examined mainly to provide insight into an issue or redraw a generalization. The case is
of secondary interest, it plays a supportive role, and it facilitates our understanding of something else” (p. 437).

**Rationale for Bounded Case Study Methodology**

Attention to only UNM and the first-year experience favored the use of a qualitative case study. Since the topic is bounded, the research involves a specific time frame and location. The researcher considered three qualitative approaches, namely those of Yin, Stake, and Merriam. The study at UNM is designed to consider the first-year programs that have been implemented in order to increase student success. Extraneous factors may influence first-year student success at UNM and could range from the school system of New Mexico to the ability of students to “plug in” to the institution; nevertheless, the focus of this study is the impact of programming during the first year at UNM and its effect on retention. After careful evaluation, such focus appears to be a bounded phenomenon, which is limited by time – the first college year – and location. Since the phenomenon is also recent, finding archival records was not possible, as New Mexico state statute does not require an archive of information that would be relevant to this study unless it meets certain criteria of publication, in which case it is archived no sooner than one year after its publication. This process is new and ongoing, so even if a report is ultimately completed or executive-level e-mails or memos are eventually added to the archives, they are still not immediately available.

The primary difference between Stake and Merriam is Merriam’s attention to a particular situation or phenomenon that is bounded by place and time (Yazan, 2015). In this particular study, both the time (first college year) and location (UNM Main Campus)
are limiting factors that fit with the approach of Merriam for a program review as a bounded case study.

The study is unique as of the time of its development; thus, no other study has considered UNM’s efforts to improve its first-year success rates. The objective is to explore which actions UNM has found effective in improving student success. The case is an applicable study since UNM’s process of supporting first-year student success has shown remarkable improvements. Thus, it is valuable to document the phenomenon and examine its implications (Yazan, 2015).

**Research Site**

The increases in the graduation rate and first-year student success at UNM are higher than those achieved by any other public four-year university in New Mexico (Dyer, 2017). While other success stories in New Mexico exist, UNM reports the highest enrollment across the state, and its on-time completion rate is the highest of the comprehensive universities in New Mexico. Only NMMI, a specialized school with restrictive admission and graduation requirements; and St. John’s College, which has highly selective acceptance rates and a unique program, have achieved superior on-time graduation rates. The University of New Mexico has the highest overall enrollment of students in the state, the vast majority of those from New Mexico (UNM Office of Institutional Analytics, 2017). This study is designed to provide an understanding of the program and processes that UNM has utilized to improve first-year student success.

The University of New Mexico is a national leader in four-year completion rate improvement. This prominence as well as the well-documented influence of the first year on graduation rates and the school’s location in New Mexico’s largest city were all
considerations in the location selection (Abdallah, 2018; Dyer, 2017; Tinto, 2012). The University of New Mexico is ranked second in the nation in improvement of four-year graduation rates (Dyer, 2017). Studying UNM was, therefore, logical in view of its location and the higher enrollment of state residents compared to the national leader, Georgia State University. Finally, travel expenses and the ability to complete a study at UNM justified the decision to examine a school in Albuquerque rather than a school in Georgia.

The University of New Mexico has continued to improve its graduation rate. Provost Abdallah (personal communication, 2018) noted that the four-year graduation rate will continue to rise this year, but certain issues have emerged in counting four-, five-, and six-year graduation rates, particularly in New Mexico. In a state with high poverty, students complete their degrees but often require more time. Provost Abdallah shared his preference to count the total number of degrees regardless of the time frame in which they are completed. He did not discount the value of the four-, five-, and six-year graduation rates, and UNM has taken steps that Complete College America (2017) has outlined to improve on-time completion. However, these numbers do not take into account students who require more time to finish, who drop out, or who must take a break for family considerations and thus delay completion. A compounding issue with the data is that some students are not counted, as only first-time students who start and finish at the same university are factored into the current formula for graduation. Provost Abdallah (personal communication, 2018) questioned the overall usefulness of this data given its bias toward schools that attract more traditional first-time students with the means and family support to complete college “on time.”
Data Collection

The University of Nebraska - Lincoln (UNL) operates a Human Research Protection Program (HRPP), which connects six offices, including its Institutional Review Board (IRB). The HRPP (2018) is designed to “work together to oversee the protection of human subjects participating in research conducted by UNL faculty, staff, students and affiliates.” The provost of UNM also approved the study, and the UNM IRB deferred to that of UNL. The UNL IRB approved the study on October 23, 2018.

Merriam (2009, p. 85) has recommended that researchers collect data that is not extraordinary in nature but rather composed of “ordinary bits and pieces of information found in the environment.” The importance of the data for a research study depends on which information the researcher deems relevant. In the field of education, interviewing is an essential collection tool. While this study does not exclusively utilize this approach, interviews were the primary vehicle to explore the program at UNM. The researcher’s observations of, for example, interactions, work spaces, and the activities of the first-year program, offered further insight into the program.

Document Review

To examine the institution and its first-year program, the methods included a review of public documents as well as documents that UNM provided for the research. The review was intended to highlight any additional questions that could be useful for the analysis.

Participants

Participant selection considered all groups that influence first-year student success at UNM. Research has indicated that such groups include the administration, students,
faculty, staff, families of students, and the Albuquerque community (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). Despite their relevance, not all groups fit within the scope of the study. First-year and student support programs at UNM facilitated the change in outcomes that the university cited as likely to have directly caused improvements. Ultimately, investigating the phenomenon through interviews with administrators, faculty, and staff who were involved in the program offered a solid basis to further explore the success at UNM. The researcher included a recent alumnus in an effort to add a student’s perspective to the narrative.

**Administration and Program Staff Interviews:** Interviews were the primary method used to gather data for this study. Merriam (2009, p. 88) has stated that the “main purpose of an interview is to obtain a special kind of information,” which was crucial to explain the phenomenon at UNM. While observations could provide information about the program in its current form, interviews that addressed past events were imperative to determine how the program had reached such a form. In this case, the significance of interviews is in agreement with Merriam’s (2009) assertion that “interviewing is sometimes the only way to get data.”

This study involved formal, semi-structured interviews, which offered insight and facilitated further exploration through the answers of interviewees. Semi-structured interviews are flexible but guided by a list of pre-determined questions (Appendix B). Roulston (2007) has demonstrated a link between the interview style and philosophical orientation. In Roulston’s model, neo-positive interviewing informed the construction of the process for use in this study. In a neo-positive interview, a “skillful interviewer asks
good questions, minimizes bias through his/her neutral stance, and generates quality data and produces valid findings” (Roulston, 2007, p. 5).

Patton (2002) has provided direction for formulating the overall structure of interview questions. To pose questions that would generate the deepest understanding of the phenomenon at UNM, the interviews considered actions that aimed for improvement, the specifics of the process, and its outcomes. Planning documents were reviewed to establish a baseline for the interview questions. The interview questions (Appendix A) were designed to support the main research questions:

1. How does UNM set and reinforce student expectations?
2. How does UNM handle advising, and is this approach effective?
3. How does UNM provide curricular and co-curricular support?
4. How does UNM assess student success programs?

To have an accurate understanding of the steps at UNM to improve the first-year experience, the interview process began with the provost. When the study commenced, former Provost Abdallah had moved to Georgia Tech. Dr. Wood, the provost at the time of the study, was highly supportive. Mr. Babbitt, Vice President for Enrollment at UNM was not included in the study, for multiple attempts at contact were not effective. Thus, these two interviews did not take place, and the research entailed 17 interviews in total. Interviews began with the Provost’s Office and the Center for Academic Program Support (CAPS). The first five interviews generated an additional 12 interviews that were based on recommendations from the initial respondents as to other key individuals involved in the changes at UNM.
Interviews were conducted with CAPS Executive Director Aeron Haynie and Associate Director Anne Compton in order to derive information about first-year support through the program. The budgeting process was considered, and the appropriate individuals were interviewed. The budgeting process is crucial to institutional objectives, as the resources that were allotted to the program illustrates UNM’s prioritization of the first-year experience, student persistence, and completion. While 10 interviews were planned in addition to the interview with the provost, 17 interviews were ultimately conducted. The richest data regarding program changes and their resulting impact would derive directly from the staff who implement the program with students as well as the mid-level managers who oversee the process.

The duration of each interview was estimated to be one hour, including time to establish rapport and engage in discussion. In reality, interview times varied from 22 to 71 minutes. The interviews were held primarily on the UNM campus in the workspaces and offices of the staff, faculty, and administrators who were interviewed. A digital audio recording device was utilized, and data from the recordings will be saved in an electronic format for three years from the publication date of this study. The interviewees were briefed on the general areas of research and overall interview protocol (Appendix B) as well as informed of the intent to record the interview. Following the interviews, the data were transcribed. Like the audio recordings, the transcripts will be stored for three years. The researcher wrote notes during the interviews and scheduled a meeting with participants to review the overall findings.

The interview responses were categorized through deductive coding in relation to one of the overarching first-level coding categories. The research includes responses that
fit directly into each category. Meanwhile, responses that were irrelevant to the research questions were coded with inductive in-vivo coding. All comments were reviewed prior to finalization of the project to ensure that no additional themes were overlooked in the initial series of questions. Ultimately, the interviews produced a rich narrative.

**Introduction of Participants**

As the researcher stepped onto the UNM campus in June of 2018 to request initial approval of the study, the researcher had no idea that the provost and some of his staff would change roles by the time of my next visit on November 1, 2018. Luckily, the Interim Provost, Dr. Wood, and the faculty and staff in his area were equally receptive to the study. They recognized the advancements in retention and graduation at UNM and were excited to share their story. Given the numerous gains since 2008, it was soon clear that the overall change occurred within the culture, because a group of concerned faculty and staff had invested countless hours and resources to improve the retention and graduation rates of UNM students.

This section provides brief descriptions of the 17 interviewees in the study. The individuals were initially identified by their leadership and involvement in the CAPS office or its leadership structure. Through the initial seven interviews, an additional ten were organized with current faculty and staff members who were significantly involved in the process as well as one recent UNM graduate. The gender of the participants reflects slightly more female respondents than male with 65% of the respondents responding as female and 35% responding as male. The ethnic makeup of respondents was 53% White, 41% Hispanic and 6% African American. Of all respondents, 53% had attained their bachelor’s degree at UNM.
**Barbara:** Barbara is a 30-year veteran at UNM whose story embodies the topic of this study. She arrived at the university in an undisclosed year from a small, rural New Mexico town. As a first-generation student, she cited the CEP program as key to her success at UNM, where she made many friends. During her time at the university, she fulfilled various duties ranging from recruiting new students to working with the dean of students in equity and inclusion that played a leading role in the whole of undergraduate advising. Currently, she assumes the position of training advisors to encourage support, which she considered vital to student success. Barbara believed that her own college-going experience made her more intuitive in realizing when students are struggling as well as more passionate about providing good student services. Her decision to attend UNM was at least partially based on a CEP advisor who she knew from her hometown.

**David:** David is a recent UNM graduate who was a top-ranked student at a large New Mexico high school. He entered UNM in the fall of 2012 and graduated with a degree in athletic training in 2018. David started as an advisee in University College as a ‘pre-architecture’ major before he was admitted to the architecture major in the fall of his sophomore year. Once he was in the Architecture program he determine that the field was not suitable for him. By the time he decided to commit to athletic training, he was in his third term at UNM. Unfortunately, the athletic training program only started cohorts in the fall, so he took unrelated courses in his fourth term before attaining admission to and beginning athletic training courses in the fall of his junior year. He mentioned the issue of his major change and financial aid issues as times when other students might have left. His eligibility for the lottery scholarship terminated after eight terms and left him without
that help for the last two years of college. Ultimately, he graduated from UNM in six years and moved back to his hometown, where he is gainfully employed.

Elizabeth: Elizabeth was on the cover of the *Albuquerque Journal* in the story that prompted this dissertation. The story referenced the higher graduation rates as evidence of the success of CAPS, which was primarily attributed to Elizabeth as the coordinator and her team. She has been at UNM for four-and-a-half years and spent all of that time with CAPS. She is originally from Texas but completed her bachelor’s degree at UNM and her master’s degree in Michigan before returning to UNM. She expressed a strong affinity for New Mexico and for working with students through CAPS.

James: James is a 20-plus-year UNM veteran who entered the university as a college first year student and found a home on campus. He felt a strong connection to friends and faculty once he arrived, as they helped him make the transition to life on the UNM campus. He leads programming on campus a position that provides various supports to UNM students who are at the highest risk of dropping out. James shared his story of coming to Albuquerque at the age of 18 and discovering a new and unfamiliar world. He fell in love with the campus and the people and has spent his career working to ensure the same or greater opportunities for future generations of UNM graduates.

James exhibited substantial institutional knowledge across a variety of areas, as his program is involved in supporting students in all aspects of student curricular and co-curricular development. He perceived that his team and undergraduate admissions clearly communicated student expectations prior to their arrival at UNM. However, when he considered the outcome when student expectations are not met, he found it likely that
such cases were those of students who dropped out or transferred, acknowledging that UNM is not a good fit for some students.

**Jennifer:** Jennifer grew up in Michigan and had worked at UNM for five years at the time of her interview. She was expected to attend college and felt that college is generally a positive experience, but her own experience could have been broader. She was pressured to decide on her career path early and was well into her degree when she realized it was not the right path for her. Thus, she felt lost during her college experience and missed the chance for self-exploration. She explained that it is important for students to ask themselves the following question: “is this really something I want to do 10 years from now? Is this something I want to stay in or stay with?” She was relatively new to UNM at the time of the interview and works to publicize CAPS programs throughout campus as well as advertise for tutors to work in the program.

**Jessica:** Jessica is from Arizona and moved to Albuquerque to earn a master’s degree. She was a tutor in her undergraduate experience and shared the belief that her college-going experience must influence her work with students. She has worked for CAPS at UNM for five years. While initially a student manager for the learning strategies team, she later served as a graduate assistant for the program. She coordinates exemplary students to re-embed them in their successful classes to model positive student behavior. Interviews with John, Margaret and Mary mentioned this program. Jessica added that she attended college at a large public university that was starkly different from UNM, so she can relate to diverse student experiences. As a motivated student, she sought help in college, and emphasized that encouraging students to seek assistance before they encounter academic problems can be the most challenging part of her job. When asked if
it would be advisable to mandate this program, she believed that while it might help some, the mission of CAPS is to provide academic assistance, not to mandate assistance.

**John:** John was born and raised in rural New Mexico. In high school, his counselor posed only one question: “Are you going to the coal mines, or are you going to the prisons?” John chose neither. He grew up in a single-parent home and did not know how to attend college, but he wanted to prove his high school counselor wrong. He enrolled at UNM and graduated in four-and-a-half years, during which time he worked as a student employee. After obtaining his degree, he became an advisor and earned his Master of Business Administration. At the time of the interview, he had been involved professionally at UNM for eight years and for thirteen years overall. He served as an advisor and program specialist first before assuming a more administrative role. John felt that his experience in the college transition process provided a basis for his work. In his role, he focuses on student success in and beyond the university setting.

**Karen:** Karen grew up in rural New Mexico and attended college, earning her bachelor’s degree and master’s degree from colleges in New Mexico. She has worked at UNM for over 20 years in various capacities. She began her job working in the Anderson School of Business and has since held positions primarily in enrollment management, where she leads retention efforts for new students and manages the texting program that helps UNM reach out to students at critical points to encourage them and offer them help if needed. She also operates a program called “Rejoin the Pack,” which is designed to attract students who have stopped out or dropped out return to UNM. During the time of the First Year Steering Committee (FYSC) project, Karen worked in New Student Orientation.
**Linda:** Linda grew up in the Northeast US and earned her bachelor’s degree, master’s degree and Ph.D. from large public state institutions. She has held tenure track positions in three states. She cited the dismantling (through budget cuts) of the student support in Wisconsin as one of her reasons for moving to New Mexico. She began her job at UNM five years ago as Director of the Center for Teaching Excellence and as an Associate Professor in the English department. When CAPS merged with the Center for Teaching Excellence (CTE) three years ago, she became the director of the whole organization. She expressed a love for New Mexico, especially the diversity in the state, which is truly integrated into the culture. She noted that there is much “valuing of diversity” in the Midwest yet little diversity in the population. Even though her administrative role has removed her from the classroom, she tries once per year to teach a class to maintain a connection with the classroom and the ever-changing student body.

**Margaret:** Margaret has worked at UNM since the last accreditation and was thus especially informative about the cultural shift. Margaret had a passion for student success and helping students find their voice. She started her employment at UNM by advocating for students in one of the ethnic centers and eventually adopted a role in one of the colleges at UNM, where she became heavily involved in the major processes that required change to enable FYSC initiatives.

**Mary:** Mary noted that one of her parents was a college professor, and her father earned a Ph.D. While she attended somewhat “gritty” public high schools, she later attended both Harvard and Stanford Universities and had a privileged educational experience. At times, she felt that she did not belong because of her high school experience, which differed from those of other students at UNM. Mary:
I just believe that education is transformative and also provides… the way for us to have an equitable society and an engaged society. Education addresses inequality, fractures in democracy, health…right… and I have worked with students for thirty years… and I am so filled with respect and admiration for the way they try to take their destinies into their own hands.

Mary has worked at UNM for over 20 years, and has witnessed the implementation of the lottery scholarship program, significant enrollment growth, and students struggling in the classroom. Though not a key player in the First Year Steering Committee (FYSC), she maintains a leadership position that enables her to recognize the value of the work underway and the need for its continuity. The interview with Mary highlighted the excitement and promise that has seemingly carried this project to fruition.

*Michael:* Michael is a native New Mexican and attended UNM. During his first two years at UNM, he worked and lived off campus, which is typical at the university. During his third year, Michael applied for an orientation leader position, which subsequently launched his trajectory and spawned his interest in student affairs. He stated that his college-going experience informs his mentorship of students and conversations with them. Although he fulfills a new position as Assistant Dean of Students, he has been at UNM since his entry as a student, with the exception of a two-year hiatus to obtain his master’s degree. His time at UNM in a professional position began after the primary transformation of the programs to improve retention, but he was well aware of the efforts and their impact prior to that. During his time at UNM, some of the current supports existed, but he has drawn upon the early struggle in his own college career to encourage students to overcome their challenges.
**Patricia:** Patricia grew up in rural New Mexico, and moved to Albuquerque with her family during her high school career. Attending UNM was a natural move, as it offered proximity and the ability to live at home, and she ultimately received both a bachelor’s and master’s degree. She found UNM to be large compared to Roswell, and the demographics were drastically different. She believes that her experience influences her work with students, as she originates from a smaller district and a city in which everyone knew everyone. Patricia stated:

You can get lost really quickly [at UNM]…and so I know the cost of student success in a sense that there is a reason why you have the big lecture halls…it's cost efficient…but I understand that you can lose a lot of students and if students don’t succeed in the first term and first year we start to lose them very quickly.

Patricia has worked on budgetary matters in academia for seven years and demonstrated an incredible grasp of the overall budget process at UNM.

**Robert:** Robert grew up in the Midwest, attended a small private institution and started his career at a small school in Kansas. He has been at UNM for five years and witnessed the commencement of the Gardner Institute’s efforts at UNM which he has engaged in since that time. Although he was not involved in the actual launch, he became the chair of the data committee once the subcommittees were created. He started at UNM as the STEM gateway program director. Robert now oversees the STEM Collaborative Center and recently became 50% operations director of the UNM Grand Challenges Program. Robert has been employed in higher education for over 30 years and chose to work at UNM due to its unique location and student body. He acknowledges the value in
the diversity and his attraction to the culture of UNM and New Mexico in general. He also spoke of the profoundly positive impact the last eight years in the program have had on him. He was a key personality in the FYSC group and continued advancing new initiatives but noted, with slight melancholy, that the original FYSC group had ended, and the new iteration had not yet been launched. He believes in the benefits of the efforts and explained that most data support them. Robert had an atypical college experience, wherein he struggled during his undergraduate experience because he was over-committed. His collegiate experience does not help him relating to most first year UNM students. He highlighted the value and unique culture of New Mexico as one of his primary reasons for choosing to work at UNM.

**Sarah:** Sarah has a clear passion for helping students learn how to write well. She grew up in the Northeast and was a first-generation college graduate from a small private school. Her own experience definitely influences her work with students, as she was extended much empathy as an undergraduate, which she has passed along to the students with whom she works. Moreover, she has strived to avoid assumptions about the thoughts of students. Sarah came to New Mexico for a Ph. D. program with a focus on composition and rhetoric. She shared that, after 11 years in New Mexico, it feels like home, and the state has much to offer. While she started at UNM as a student employee and graduate assistant, she later fulfilled a series of staff positions before reaching her current role.

**Carmen:** Carmen grew up in Northern California and attended UNM. She visited New Mexico the summer before her senior year and learned about the lottery scholarship, which influenced her decision to attend college in New Mexico. She could attend college
in New Mexico without taking out loans rather than contending with the much higher expenses in California. Early in her experience in New Mexico, she drove to Santa Fe and was excited that the capitol would be larger than Albuquerque; however, she found a city of only 70,000 people – one-tenth the population of Albuquerque. She shared that her own college experience effects all of her work. She was confronted with tasks in her first year at UNM that she had no idea how to approach, yet faculty expected such knowledge. She has been at UNM for nine years as staff, during which time she worked with students by recruiting them to the High School Equivalency Program (HEP), which is affiliated with the College Access and Migrants Program (CAMP), both of which are under the CEP umbrella. Later, she worked at El Centro de la Raza, an ethnic center at UNM that serves primarily Hispanic students. Over the last two years, she has worked with online student tutoring programs at CAPS. Through her work at UNM, Carmen has met and worked with many students, with whom she has maintained contact. She explained that she offers them advice, writes letters of recommendation and guides them through random academic tasks. Carmen expressed support for helping students shift their belief systems through a disorienting dilemma as well as imparting self-confidence in order to aid in making them successful in higher education.

William: William is from Las Cruces and completed two degrees at UNM. He was involved in the change to a student first philosophy at that occurred at UNM and strongly identified as a Lobo. His enthusiasm for the university during the conversation was obvious and mirrored his public image which included a twitter feed full of pro-UNM tweets. Several interviewees mentioned him as a major agent of change at UNM
over the last decade; however, he preferred to discuss the achievements of advisors, staff and faculty throughout the process.

**Observations**

During the process of interviewing UNM faculty and staff who are relevant to the program, the researcher observed the interactions, work spaces and the activities that took place in each location. Observations offered a means to support interview findings and captured insights about the first-year experience that students in the program and program administrators may not have recognized. The researcher used the observations to clarify the first-year program. The interactions revealed information on topics that were not part of the questionnaire and absent from the interviews. Furthermore, posters, fliers, online advertisements and other modes of communication with students about the services offered were recorded electronically to support the interview findings with screenshots.

**Planning Documents**

This study considered the accreditation report of the HLC as well as other public documents. Supplemented by internal documents and data, these sources illustrate not only the current state of the institution through the lens of those working “in the trenches” with students but also the path that UNM has followed thus far in its progress. Additionally, the planning documents guided questions for certain participants in the process. For example, it was anticipated that the business office and budgeting process would have considerable influence on the ability of UNM to continue current programs and implement new ones. Therefore, a review of the planning documents ensures a full study (Yazan, 2015).
Mission and Vision of UNM: The mission and vision of an institution convey what the institution endeavors to be and who it aims to serve. Therefore, the mission and vision are crucial to this study as they guide all operations at UNM and should be central to building expectations for students. The mission statement of UNM generally identifies the expectations for a Carnegie level-one research institution and emphasizes the benefits that UNM should offer the city of Albuquerque and state of New Mexico. The statement also implies that the mission is in service of the citizens and state economy.

In 2001, the Board of Regents (UNM System, 2018) adopted the UNM vision statement. This statement clearly aligns UNM’s future with addressing the needs of New Mexicans and adds that UNM would like to foster programs of international prominence to raise the eminence of UNM and become a top public research university.

Researcher Reflexivity

This study initially considered a mixed methods approach, blending qualitative and quantitative methods. However, with such an approach, the study would be too expansive for the limits of this dissertation. Despite a considerable amount of available data on the first-year experience, no study has focused on first-year programs that work in New Mexico. Thus, although the data exist, a qualitative approach highlights the human element and creates a narrative of UNM’s first-year program through the experiences of administrators in the program.

Through coursework at UNL, I became aware of the variety of possible approaches to complete this study. I have worked in higher education for 20 years at several institutions, including Texas Tech, Avila University, Saint Louis University and New Mexico Military Institute (NMMI). I also obtained a master’s degree in higher
education from Texas Tech as well as a school counseling certification from New Mexico State University. I have been involved in the first-year experience at NMMI since 2010 as an instructor and in supporting assessment, evaluation, and changes implemented in order to improve student success and retention. I have further participated in three accreditations, an ongoing research project intended to improve first-year success rates, and a continuous discussion of the first-year experience and its place in U.S. higher education. NMMI has, as a whole, studied student success based on participation in the college first-year experience course as well as pre- and post-tests that highlight changes in student knowledge of topics which are covered during first-year activities, such as the first-year experience course and first-year advising experience. I attended the NACADA conference, which devoted multiple sessions to the topic of the first-year experience, and the HLC, which features sessions on first-year experience courses as well as the overall first-year experience as mainstays of the conference. Finally, in December 2018 I attended the Complete College America Convening (Conference) which focused completely on that initiative.

These experiences influence my reflexivity and introduce potential biases. While I enjoy working with first-year programs and believe in their efficacy, I also recognize that some studies, including Howard’s (2013) dissertation entitled “Student Retention and First-Year Programs: A Comparison of Students in Liberal Arts Colleges in the Mountain South,” have found that the nine first-year programs studied did not have a significant impact on retention. Thus, it was imperative to note and mitigate my potential biases regarding first-year programs. To this end, I reviewed findings with a doctoral student from UNL who was familiar with the first-year experience and UNM.
Trustworthiness

The researcher utilized several methods to establish the internal validity of the study. Creswell has identified eight strategies that qualitative researchers have frequently employed. Of these, the present study focuses on four: triangulation, negative case analysis, peer reviewer and member checking (Creswell, 2007, pp. 250-253). These four methods incorporate multiple data points that triangulate the findings to ensure accuracy of the interview transcript data through member checking and a review of the study by an uninvolved researcher.

In the triangulation process, a researcher chooses three separate points of evaluation to address to minimize bias in the study. This study design includes the triangulation of document review, interviews and observations, which facilitates a more thorough consideration of the first-year program at UNM. In the coding, the researcher sought common themes and produced a negative case analysis of points that did not fit into the coding system.

As part of this research, a meeting was scheduled for all parties involved to review the themes that derived from the interviews. This meeting provided the opportunity for comments from the individuals who were most closely involved in the work.

Finally, a peer reviewer checked the research process. The reviewer acts as a ‘devil’s advocate’ to hold a researcher accountable (Creswell, 2007, p. 251). In this study, the researcher selected another doctoral student, who was also completing a dissertation at the UNL, to review the process and ensure that researcher bias did not influence the findings.
**Ethical Considerations**

This study consists of interviews with faculty and staff coupled with observations of the program and document analysis. The structure of the study minimizes the chance of the release of any Federal Education Right to Privacy Act (FERPA) related information, as it did not require its collection. The interviews remain confidential, and observations were designed to avoid violating FERPA or any institutional policies. External data sources are in the public domain, while internal data and provided documents are described in general or composite terms to avoid policy violations. The study received approval from the IRB of UNL, and UNM approved the research on its campus based on UNL’s IRB approval of the study.

**Data Analyses**

This case study utilizes all the data that are gathered in order to compose a narrative explanation of the phenomenon at UNM. This narrative includes results from the interviews, observations by the researcher, and an evaluation and consideration of planning documents.

Coding was performed according to Merriam’s (2009, p. 178) perspective of categories as “the same as a theme, a pattern, a finding, or an answer to a research question.” Category construction became clearer as the study proceeded, and the research questions and theoretical frameworks formed a basis for the emerging categories. Examples, real-life experiences that were captured during the process, observations, and planning documents were coded into categories to organize the data and thought process of the researcher.
In-vivo coding is utilized to identify words or short phrases from the interviews. The phrases highlight patterns in the UNM journey that illustrate the current state of the program (Miles, Huberman, & Saldana, 2014). Key aspects of the literature have organized these patterns, which suggest the following four components of first-level coding:

1. Expectation
   a. Does UNM set and reinforce student expectations?

2. Advising
   a. Does UNM advise and assess the advising program, and is it effective?

3. Curricular and co-curricular support
   a. Does UNM provide curricular and co-curricular support?

4. Assessment
   a. Does UNM assess student success programs?

Figure 2
Second-cycle coding is the process of considering themes, causes, interpersonal relationships, and theoretical constructs. According to Miles, Huberman and Saldana (2014), “this approach begins with a ‘start list’ of researcher-generated codes, based on what preparatory investigation suggests might appear in the data” (p. 77-78). For the purpose of the study, the researcher utilized the second-cycle process of *provisional coding* to determine patterns in the document review, interview process, and observations that revealed elements of the first-year program at UNM that improved retention. Thereby, the researcher compiled a secondary list of codes that were expected to arise in the research that can be found in Appendix G.

The researcher recorded interviews in audio format, had them transcribed and subsequently considered themes in the process. Following transcription, the researcher applied the themes that emerged in the literature review to code the data. The coding process was exhaustive and the researcher coded all relevant comments, observations, and planning documents into one of the established categories.

Phase one of the study was a document review of seven texts. The first round examined the strategic documents of UNM, such as the mission, vision, and strategic plan, while the second reviewed the catalog, operations and procedures manual, and prior documents, including the accreditation self-study. Finally, the document review analyzed internal documents, such as data on the provost and enrollment dashboards, to generate a basic understanding of the institution and the documented history of student success at UNM.

Phase two of the study entailed interviews of faculty and staff at UNM who play a role in first-year success. The question design elicited information that would illuminate
the phenomenon, its history, its current state, and the next steps that UNM officials have planned. The interviews were crucial to the study, as they revealed underlying beliefs regarding the programs among UNM administrators, faculty, and staff. Sixteen interviews were carried out in November of 2018 on the UNM campus in Albuquerque and one in December in Roswell.

Phase three of the study considered physical evidence of efforts, such as signage, announcements, and messaging utilized to communicate a clear vision of student support to the UNM student population. The study also analyzed pictures, videos, and printed material to determine the methods by which students learn about the programs as well as the efficacy of such communications.
Chapter Four

Results

This chapter presents the findings of the qualitative case study. This study has examined the phenomenon at UNM according to the main research question: Which steps has UNM implemented that have positively impacted first-year student retention and completion? The interviews primarily informed the format of narrating the University of New Mexico’s (UNM) journey. The interview process clearly revealed that the history of events at UNM is not recorded. The document review and observations provided limited insight, and it became apparent that achieving a full understanding of the phenomenon was only possible via the interview process.

The interview responses were categorized through deductive coding into one of the overarching first-level coding categories. The research includes responses that fit directly into the category. Meanwhile, responses that did not relate to the research questions were coded with inductive in-vivo coding. All comments were reviewed prior to finalizing the project to ensure that no additional themes were overlooked in the initial series of questions. Ultimately, the interviews brought a rich narrative to light. Thus, while the chapter incorporates observations and document review, it focuses mainly on interviews. After restating the research questions and methods, the chapter synthesizes the results of the study and analyzes them in a chronological order of events.

Research Questions

Based on the commonalities in Tinto’s (1993) model, the Complete College America (2017) model, and Gardner’s Foundations of Excellence (The Gardner Institute,
2018), the study has identified four appropriate sub-questions to evaluate the program at UNM.

1. How does UNM set and reinforce student expectations?
2. How does UNM handle advising, and is it effective?
3. How does UNM provide curricular and co-curricular support?
4. How does UNM assess student success programs?

The research used in-vivo coding (Miles, Huberman, & Saldana, 2014) to identify frequent words and short phrases from the interviews that suggest themes within the data. Appendix E presents the coding. Coded data for curricular and co-curricular support generated the most codes (794 occurrences) followed by advising and related terms (433), expectation and related terms (381 occurrences), assessment and related terms (315 occurrences), and the lottery scholarship (178 occurrences) respectively. The researcher also utilized provisional coding to determine the second-cycle codes, and the themes that emerged from the provisional codes were organized in a chart (Appendix E). The frequency of the occurrences corroborated the narrative from the interviews and provided the researcher with another level of transparency in the data.
The research responses were largely about UNM’s increased efforts to encourage and provide opportunities for undergraduate research opportunities. Respondents frequently referenced these themes in discussing the cultural shift that occurred at UNM since the 2008 Higher Learning Commission (HLC) visit. Two findings came out of the visit, one on governance and one on advising. While the governance finding does not relate to this dissertation, the advising finding was the initial impetus for change. UNM implemented a plan to improve advising, increasing the number of advisors by four per year, changes to the facilities and technology supporting advising and additional financial support of approximately 1.2 million dollars. The HLC accepted the changes in the report as sufficient to satisfy the needs of the monitoring report (UNM, 2011).

**The “Perfect Storm”**

Initially, the research suggested that CAPS incited the change at UNM (Dyer, 2017; Dyer, 2018). However, the findings almost immediately highlight a more comprehensive effort at UNM. During the course of the study, it became clear that there
were certainly efforts to improve student success at UNM prior to the 2009 Higher Learning Commission (HLC) visit. The HLC visit initiated a change with an increase in the number of advisors. Preparing for the 2019 visit and the Quality Initiative was important, but the transformation that took place at UNM went beyond just these requirements for accreditation. In virtually every interview something new that was a response to a change in attitudes on campus about student success was mentioned. In an interview with one of the longest-tenured members of the UNM community, it was noted that, in the end, the phenomenon at UNM seemed like a “perfect storm.” Specifically, Barbara (2018) stated, “I don't know if it was the Gardner Institute [First Year Steering Committee (FYSC)] or if it was a perfect storm of different variables.” The research phase revealed that many factors were at play and influenced the increase in first to second year retention at UNM.

The research makes no implication that external forces in the state or nation caused the significant change at UNM in retention and graduation rates. While there were efforts prior to FYSC and in reaction to the HLC report, such as lowered the student-to-advisor ratio to 335:1 to 216:1 by hiring additional advisors, the respondents most frequently credited the FYSC as the main direct causes of the increase in retention and graduation rates (UNM, 2011). The FYSC reduced the number of credits required to graduate and changed the structure of advising to separate academic advising and student support services. In many cases, this change created a more robust network of support, particularly for minority, first-generation, and rural students. These efforts culminated in an improvement in retention and graduation rates, which many at UNM believed to be the most significant nationally.
The College Enrichment Program (CEP), Center for Academic Program Support (CAPS) and the Ethnic Centers were in place prior to the 2009 HLC visit. In response to a finding from the HLC, UNM hired additional advisors to lower the student to advisor ratio. UNM worked with Dr. George Kuh, a consultant, to guide the University in considering the possibilities and potential means to improve student success. The Kuh consultancy led to a Gardner Foundations of Excellence Initiative that was dubbed the First Year Steering Committee (FYSC) at UNM. A core team of invested people worked on three major committees, ultimately yielding a variety of changes that have positively impacted retention at UNM.

Prior to the 2008 HLC Visit

In a review of websites and documents in consideration of the changes at UNM, as well as information from the interviews, it is evident that some efforts to increase student success have been in progress for a substantial amount of time. Ultimately, most efforts in the 2012 to 2018 timeframe came under the FYSC, but some originated as early as in the 1960s, when the College Enrichment Program (CEP) was established through grant funding and later funded directly by the university. John explained, “College Enrichment Program was started in 1968 and the idea was to increase the number of students from lower income, first generation minority students and so that was the big push.” Programs such as the CEP, Center for Academic Program Support (CAPS) and the Ethnic Centers were in operation before the 2009 HLC visit and pre-date FYSC. These organizations were crucial in the improvements and many of the changes that FYSC implemented.
College Enrichment Program: James explained that the CEP, designed to help rural, first-generation students transition to college, was founded in 1969 and is the oldest of such programs. CEP is designed to help first-generation, rural, and minority students, who are historically at risk, acclimate to the university. Barbara indicated that she might have been overwhelmed by UNM had it not been for the CEP. The early CEP program brought 40 students in her cohort and 80 students total to the university in the two weeks prior to the start of the fall term. Barbara was asked if the early CEP summer program helped her transition to UNM:

Absolutely. That's when I really created some really strong friendships, when you spend two weeks day and night with someone. I had a roommate, just like I did later when I moved in. We got to be comfortable with the campus, with the way the residence hall worked, and then all the presentations that came through. They were the ones that I would go to when I was having trouble; like not enough financial aid was rewarded, I needed a tutor in math, all those services. There [were fewer] university-wide services, so they provided a lot of what is available to everyone now. They provided it for that segment [CEP participants] of students.

The summer program that Barbara attended was much longer than the new student orientations of today. The students stayed in the dorms, ate in the campus dining center, learned about campus resources, and fostered connections with other first year students as well as faculty and staff, who can have a decisive influence on each student’s first-year success. Barbara shared that the program had a major role in her first-year success and
believes that students believe they know what to expect when they arrive based on their knowledge of UNM.

In the hall outside James’s office before his interview, new student orientation, the College Assistance Migrant Program (CAMP) office, the McNair program office, and other areas were visible. In the CAMP office, students were working, and while the offices seemed cramped, the coordinator was welcoming and greeting the students by name. The personal element seems critical to the CEP program, as James mentioned it as important to his college-going experience and is infused into the programs:

So I was part of the college enrichment program which I oversee now. And so they, back then, had orientation, had support services for students that looked like me, that came from rural areas. And so it helped my brother and I ... ’cause my brother came with me, so we adjusted, we enjoyed it, we stayed, we worked here.

And now I'm working where I first started as a student.

All of these efforts are a part of recruiting students to UNM and part of student success. Barbara added that after students arrive, they can become overwhelmed by the reality of UNM.

Barbara also recalled working with learning strategies. Currently, she works with the Indigenous Library Service Department to devise a learning strategy program that is appropriate for native students. In an effort to create the Academic Success Workshop,
CAPS collaborated with advisement and CEP. This voluntary workshop cultivates a growth mindset and students can attend the workshop to fulfill their academic probation contract commitment and lift the academic hold on students who are on academic probation. Jessica co-hosts the workshop with John. It is designed to prompt students to reconsider their previous modes of thought and develop new patterns. Elizabeth asked, “At what point does student support become confusing, especially due to the silos that exist?” In this regard, CAPS has stated that the new leadership at UNM is a strong group of people who strive to centralize operations and illustrate that teaching is important work. Finally, with the declining enrollment at UNM, the conversation has shifted from how departments hire another member to how they can recruit students to UNM, with faculty focusing on links to high schools in their areas of expertise. While it is more likely that a student who meets an English professor in his or her high school senior-level English class will make a connection and major in English, it is more important that they come to UNM and know someone who is a resource and has a connection with them.

Sarah outlined the referral process that the CAPS tutors are trained to use:

Ideally because my tutors are trained to meet students where they are at, they will listen, but then they'll talk about what we can do about this [the issue that caused them to come into CAPS]? And not only will they help them with whatever project they are working on that day, but also through their training. Before they start here, they are extensively trained on referral skills. So, we have a list of other resources on campus. If writing is one thing but they also have other needs that they'd like to have addressed, we could refer them to SHACC (Student Health and Counseling Center) or we could refer them to…workshops [focusing on student
success in a variety of ways] here in Zimmerman. We could refer them to ethnic centers if they are looking for a community. If they are looking for a cup of coffee and a supportive ear, they might be sent to or recommended to go to the women's resource center. The tutors are a peer, so they are able to say I once felt this way and this is what I did. So it's not diagnosing students. Because we have that list of other supports on campus, they'll give them a handout and say, “Here is one that really worked for me or here is one that I've heard is a good place to start but you have options.”

Sarah strives to hire a diverse corps of students to work in the writing and language center. Students quickly realize writing that was considered adequate in high school is not sufficient for first year composition at UNM. She noted, “I think that we have students from a variety of backgrounds. I think that there's always more that we could be doing for students who would have felt marginalized in the first place in higher Ed.” Students consider the goal of one gained strategy in each tutoring session, developing a helpful toolbox by the end of their college career. Additionally, the writing and language center aims to improve not only English but also Spanish and native languages (“DNA languages”).

**UNM Ethnic Centers:** A review of UNM documents identified nine total UNM support centers related to groups on campus. Five of those are ethnic centers on campus. While they pre-date FYSC, they have been an important part of the transformation at UNM. They are closely affiliated with the efforts to increase retention and graduation rates, and influence student success (UNM Student Resource Centers, 2018):

1. Accessibility Resource Center
2. African American Student Services  
3. American Indian Student Services  
4. College Enrichment Programs  
5. El Centro de la Raza  
6. LGBTQ Resource Center  
7. Lobo RESPECT Advocacy Center  
8. Veteran’s Resource Center  
9. Women’s Resource Center

Interviewees often referenced the ethnic centers as key to student success at UNM and leveraged the communities that the centers build to improve student success through FYSC. Robert summarized the various communities that are created and notes that if students attach to one of these communities they are more likely to persist:

If students are connected to one of those centers their odds of staying are much better. Because there---it's because they are connected to a community. If they are not getting it from a staff person they can be getting it from another undergrad, or grad. So there's this community, and there are lots of communities around campus. Like there're ones you think of, CEP, El Centro, African American students services, American Indians student services, woman's resource center, the veterans center, but then there are also communities you don't think about---like CAPS tutors form a community.

CAPS did have a substantial presence in all of them. Now, CAPS collaborates closely with three of the five centers, the Women’s Resource Center and LGBTQ center. Each area is assigned specific days and times for help. Robert expressed more concern
over students who only attend class and are not involved on campus groups like the Centers. Students have the same expectations, yet they are not necessarily plugged into institutional supports. The main university websites do not highlight the opportunity for students to find community at UNM. As Robert points out, there are many communities that are not necessarily considered as communities, but students attach to them. In the case of the CEP, the program has been in operation since the 1960s and is engrained in the culture of UNM that other campus members referred two of the program leaders to the researcher for interviews.

The 2008 HLC Visit: Impetus for Change

Initially, the researcher recognized that retention and graduation rates at UNM had increased, but was unaware of the impetus of the improved outcomes. While the documents reviewed for this study do not fully explain the transformation at UNM, they do highlight one initial driving force in the change at UNM. The 2009 HLC report (HLC Self-Study Team, 2009) yielded two findings on governance and advising that warranted ongoing monitoring. These findings and the resulting work to respond to the HLC provide some insight into the change; however, during the process, the researcher discovered that the impending quality initiative for UNM’s 2019 HLC visit will focus on the Gardner initiative. While the governance finding does not directly relate to this study, the finding on advising does. In UNM’s 2008-2009 reaccreditation visit, the HLC Comprehensive Visit (2009) found:

While UNM has, in most respects, managed to staff adequately in the face of financial challenges, it has not come to grips with a significant staffing shortfall in the area of student advising. UNM’s advising enterprise is understaffed with
pockets of specialized advising that may benefit from improved communication and organization.

The response of UNM in 2011 to the findings specifies the addition of a total of 15.5 advising positions across campus, raising the overall number of advisors from 28 to 43.5 and improved the student-to-advisor ratio from 335:1 to 216:1, better than the National Academic Advising Association (NACADA) reported median of 285 students per advisor (Robbins, 2018). Also, UNM reported institutional implementation of training for advisors:

Responsibility for the training, orientation and professional development of academic advisors at UNM has typically been lodged in each individual advising unit. In the past three years, however, the University has begun to centralize support and oversight of these critical functions.

Response to the 2008 HLC Visit

The HLC report resulted in an infusion of resources into advising and a reorganization of the effort both in terms of physical space and in personnel. Mary remembered, “We vastly reduced the ratio of advisors to students as well. So that was a big initiative and involved an infusion of effort.” Over the course of the two years following the visit, UNM added eight new advisor positions, increased investment in technology to support advising, and created a position over a new required training component for all advisors (UNM, 2011). Barbara was the Director of the University Advisement Center during that time and saw the growth and investment in the program firsthand. The training for new advisors was consolidated under her purview after the 2009 HLC visit. Barbara explained, “Every new advisor really can't get access to any of
our systems until they've completed the online portion and a few in person portions. Then for the first year that they're working they attend monthly meetings…it started right after the (2009) accreditation.”

Preparing for the 2019 HLC Quality Initiative

As a part of the accreditation standards that the Higher Learning Commission (HLC) requires for re-accreditation, aside from the traditional assurance argument, is a Quality Initiative. The Higher Learning Commission (2019) defines the initiative as:

The Quality Initiative takes place between years 5 and 9 of the 10-year Open Pathway Cycle. A Quality Initiative may be designed to begin and be completed during this time, or an institution may continue a project that is already in progress or achieve a key milestone in the work of a longer initiative. The Quality Initiative is intended to allow institutions to take risks, aim high and, if so be it, learn from only partial success or even failure.

Kuh Consultancy: In 2012 UNM contracted with well-known author and speaker. Dr. Kuh came to campus for a presentation titled, “Promising Practices in Student Engagement and Retention” (Kerkez, 2012). The primary drivers in the relationship with Dr. Kuh have left UNM and the rationale for choosing Dr. Kuh is not explicitly known. However, Dr. Kuh is a well-known expert in the field of student success and he helped in developing the National Survey of Student Engagement (NSSE) survey. The primary outcome was to start the campaign at UNM, and according to Joseph Suilmann (2019), “He [Kuh] gave great presentations. [It was designed to] kick start the student success work and bring in a well-established external expert [to] help to generate some enthusiasm on campus and demonstrate institutional commitment.” The Kuh consultancy
helped UNM determine that the Foundations of Excellence should be the HLC Quality Initiative for the 2019 accreditation. The partnership with Gardner resulted in a plan that was finalized in March of 2013. In fall of 2014, the “Foundations of Excellence” were implemented by the First Year Steering Committee (Wentworth, 2014).

**The Gardner/First Year Steering Committee Initiative**

Many of the changes were due to a contract with the Gardner Institute; however, the researcher was unaware of UNM’s involvement prior to the interviews. Very few documents external to UNM mentioned this effort until UNM’s Quality Initiative was submitted to the HLC on August 31, 2018, approved by the HLC and subsequently publicly released in January of 2019 (UNM, 2019). Mary explained, “There was this really cross-campus effort to create change around the first year experience and all of it is detailed in a nice quality initiative report that we completed and sent to the Higher Learning Commission.” The First Year Steering Committee (FYSC) was the group at UNM that carried out the Gardner initiatives.

**Creating a student first mentality at UNM:** Virtually every person interviewed mentioned the duty of colleges and universities to serve the students they admit. 94% of respondents stated that students do not know what to expect when they come to college, so services such as orientation and strong advising programs make a substantial difference. Barbara mentioned, “I think it becomes academically more challenging than they expected. I think the faculty portions of orientation are pretty clear in the, we have high expectations for you, it's academically rigorous, and I think students just in general are like, "I'm ready for the challenge, I've completed dual credit, or I'm a top student from
my high school." Even before they arrive, these expectations are communicated to students by admissions and, most importantly, through new student orientation.

Several interviews noted that the culture of UNM only recently changed to embrace the importance of student success, due primarily to external pressures from the HLC, the state legislature, the governor’s office, and federal requirements. Margaret stated, “Faculty, staff, student mentors, anyone who receives any compensation from this institution [UNM] should be about excellence.” The objective is to help students learn how to find help and to do so through fewer than two contacts. When this fails or students become frustrated, their expectations are not met, and it increases their likelihood to drop out.

Most respondents mentioned a strong personal connection between support in college and their own college experiences. John recalled that he had to take a placement exam in order to test out of a low-level course at UNM, but he could complete the exam off campus, and it cost only $3.00. He lived an hour away from Albuquerque, so he went home and came back the next day to take the test. Upon returning he could not find an advisor, so he went home before returning the next day and finally setting a course schedule. John remembered, “I left orientation with a schedule, went to Grants, came back the next day, took the test, tried to talk to an advisor. They were booked. Went back to Grants, and I finally just left it. I should've been placed a little bit higher and I did place higher.” He found this experience discouraging, and worried that other students in the same situation might simply give up. Approximately two-thirds of students who tested at orientation were placed higher than they would have been without the placement test.
According to Carmen, simply speaking the language of a campus can be difficult for students upon arrival. Acronyms that faculty and staff may use might be ambiguous to students, especially those of first-generation, low-income, or otherwise at-risk backgrounds. Carmen explained that such unfamiliarity sometimes induces the “imposter phenomenon” (Clance & Langford, 1993), whereby students feel that they do not belong at UNM. In reality, this is often far from the truth, and the process and vernacular adjustment helps students realize that. Instead of specifying courses as remedial classes, the courses now have titles, which encourages a self-perspective that students are ready for college.

A necessary task to support student success was to identify faculty and staff who could effectively communicate with students and families. Effective communication, particularly with the diversity of the student body at UNM is an important factor in creating a sense of belonging for students on campus. Faculty and staff who were less effective in this regard were not tasked with direct contact with students and families. This change recognized the lesser talent of certain individuals in the expectation area. The most difficult endeavor might have been making such herculean efforts appear effortless to the students. Margaret shared a story that epitomized this change:

I asked a student who had passed along in her material [through a mastery test offered to students in the second week of the term], "Hey, how did that transition go?" And she shrugged her shoulders and said it was fine. Which to me was amazing because it took 12 people to make it [the test, evaluation and schedule change] happen, and everybody did their part, and everyone was good-spirited about it, and everyone could be vulnerable and say, "Oops, I sent this wrong, can
you double check that?" And everyone [the UNM faculty and staff involved in the process] just took care of each other. So to this student's mind, they went to bed and woke up, and everything was seamless. That's amazing. I'm super proud of us [UNM].

It is crucial to teach students – and their families, especially among first-generation students, to apply the strategies that are necessary to be successful at UNM. Informing students that they can talk with their teaching assistant (TA), Graduate Assistant (GA), or professor and that the grading strategy may allow for an exam grade omission or other benefits is also important. Carmen explained it this way: “We have so many acronyms and so many different departments and procedures that if you're not using it, or if you're not used to it, it can be very overwhelming. Just the processes, I think alone can be very overwhelming and can distract students from just focusing on their academics”

An insight that emerged from the interviews was the lack of knowledge among faculty and staff regarding the help that was available to students. Margaret remembered her early years on the faculty, “I was a faculty; I didn't understand at all how the university worked. I knew my office. I knew the bathroom. I knew my classroom. That was my list of what I understood about the campus.” The “front line” in student success is comprised of teachers in the classroom, but the faculty rarely consulted advisors or other resources to assist students through their first challenges. Training sessions to inform faculty and staff of assistance that is available to students and ways to connect students with such resources helped to train faculty and staff of the supports that are available. Students on academic probation are required to seek services and learning
strategies to complete their tasks. Learning strategies are presented through a variety of channels ranging from workshops and individual meetings to, on occasion, courses.

Linda mentioned that the CTL is involved in new student orientation, new graduate student orientation, and new faculty orientation, wherein getting faculty to understand that these resources exist is key. She thought that tenure and promotion level should be linked to student success as much as research and graduate teaching, “Yes, UNM is a research university, but we have students for which the success is not guaranteed. It’s a part of our mission, but it’s sort of unevenly applied.” Linda continued that there are some faculty members actively seeking to improve teaching methods in entry level courses:

There is a history professor, his name is Caleb Richardson. [He] is one of our teaching fellow [who is] working on changing the teaching of the large intro. to Western Civ. Course…one of the things he did in the teaching fellows project was do a focus group of students who have taken the course and asking them: “Was it hard?” “Was it easy?” “How did it compare to high school?” Then he [took] the bold step of going and talking to AP teachers in the local high schools and asking them, what are your learning goals and how do those measure our learning goals. …This year (he is) doing the reacting to the past method…having students role-play actual moments.

Informing students of available services and providing assistance encourages them to feel comfortable asking for help. Sarah noted that writing can be challenging – not only for English language learners but also for native speakers who have not been well prepared by their prior education. Some students make the writing and language
center their main environment on campus, which is welcomed. Although some students seek help, the number who do not seek help until they are in significant academic trouble is a major issue, as are those who never seek assistance at all. Identifying these students and encouraging them to utilize the available resources is a challenge.

Sarah believed that students do not come to college with accurate expectations, so they must learn by experience. Orientation helps, but the curriculum delivers few unified attempts to embed help with writing. When student expectations are not met in the writing and language center, they generally express frustration, but the center coaches students through the mental struggle that often accompanies issues in class, and it refers students to other appropriate resources on campus. Coordination of efforts across campus to more effectively support students through the curriculum is challenging, but imperative, for best practices. Sarah recalled visiting every writing-intensive course to advertise the relevant services to students, but CAPS has generally sought voluntary initiative from students rather than imposing announcements on classes.

Jessica works with students to build transferable skills that they could apply to their coursework. The skills range from note-taking to time management and are useful in many contexts. CAPS is available to students but not required as it works through relationships with faculty and a self-selection process by the students. Nevertheless, some professors promote CAPS services in key ways. For example, they might take the opportunity before the first test to inform students that help is available. Jessica noted that some faculty are very proactive with students, “With those faculty members, as I mentioned, that we work closely with they're promoting those services in really intentional ways [like telling a class] "Hey guys, if you didn't get the score that you
expected, here are some resources from CAPS that might help.” Still, not all offer CAPS when students meet obstacles, and only some faculty are intuitive enough to request help early on. The CAPS program serves one-fourth to one-third of undergraduates across the board. Some programming is more obscure than others; the drop-in program is well known, but learning strategies could be marketed more effectively if resources permitted it.

Student awareness continues to be a concern. Students either have to self-identify or reach the academic probation or suspension level to become aware of the full range of services. Faculty can request a workshop, but such requests have been under-utilized. A pilot program in learning strategies embeds learning strategies into an entry-level biology course, which reveals available resources and information to opt in. Student instructors who have successfully completed the course have one hour to prepare to lead study sessions, make announcements, and encourage use of available resources. Jessica explained:

Supplemental instruction, the SI leader is a student who's identified as doing well in the class but also is interested and passionate about the coursework. They retake that class with an instructor who supports SI, and they are paid for attending. Their role in the class is to behave as a model student, engage with questions, make sure they are taking notes, they are on time, all of those things to sort of show what it means to be a successful student in the class. Then they are given an hour of prep time for each class hour that they are given, and they host SI sessions outside of that class. The model for that is not homework based, it is
purely for review of material. The idea is that students are building habits with engaging with material that is not just driven by some sort of assessment.

As it comes from a peer, this role modeling of positive student behavior is thought to immensely benefit students. The model was first adopted by the University of Missouri-Kansas City (UMKC), and the program at UNM is in the process of accreditation by UMKC.

To answer the issue of student unitization of resources, the probation contract system was created. Under this system, students on academic probation must seek out a support service. Sarah explained, “I think though I would hope that the messaging isn't that you're in trouble but here's a good point to see that what you've done so far isn't working and let's fine something that will work for you.” Engagement with professors who can refer students to the appropriate help is crucial. How faculty and staff refer to students is also important; telling a student that they are not doing well and thus need to seek help can make the student feel like they cannot achieve success, whereas informing them of available resources and encouraging their use is more effective. Visiting every writing intensive course and informing students about available services would likely be helpful, but CAPS prefers voluntary participation over imposing announcements on classes.

Robert believed that student support services are under-leveraged. The Department of Education intends to prefer causality, but the interventions are not applied with a control group. When an idea seems effective, it is applied and implemented as quickly as possible to increase student success. It is uncertain whether it was one of the other projects from FYSC or a synergy across the campus that drove the improvement,
but “[t]he synergy in and of itself can probably be measured to some extent.” External factors are also influential: one such element was the GPA of students who drop out. Students with a GPA above 2.0 may have leave to pursue other opportunities in the strong economy, while those who score below 2.0 typically leave due to failure. Thus, it is inconclusive whether FYSC was successful independently, or if outcomes were the result of a negative economy during the period of the most significant gains. Robert suggested that most students who drop out are first and second year students in general education courses who should thus warrant the primary focus. In this regard, the Associate Provost for Curriculum and Instruction has focused on improving the retention and graduation numbers. The CEP and ethnic center students have made substantial accomplishments in serving their students, but they require more resources to advance student engagement.

As with many initiatives, the common reading program has struggled to find its niche. Elizabeth said that student involvement and a sense of belonging were noted in the “How College Works” study as major indicators that likely prompted Lobo reading (common reading), the requirement to live in the dorms, and freshman learning communities. Each of these measures are difficult in a tough budget cycle, as the first demands either buying books, which is expensive, or alternatively the labor-intensive generation of PDFs and e-mailing chapters. Although new student orientation presents a chapter, it may seem pointless if students have not checked their e-mail to read the other chapters.

John mentioned several positive developments but added that certain changes that benefitted most students may have had a negative impact on others. Students are now
encouraged to consider and declare a major as quickly as possible, which is a positive choice for many students. Certain students come to campus believing that they know exactly which major they want, only to find that they perform poorly in the courses that are necessary to achieve it. John feared that not allowing students to have a year of discovery prior to declaring a major may cause those who would change their minds to decide that college just is not suitable for them, “I think what that kind of does is it creates anxiety for students where in order to get back here [to the beginning of another major], I have to come back all the way out [of their major based advising structure] and start over.” Instead of realizing that they are not skilled in chemistry and considering that choosing another major is an option, they may now feel obliged to choose only between the two options of a too-difficult course of study or dropping out.

Reduction in degree program required hours: One major impact on graduation rates is a foundational change that took place as a part of the Gardner initiative, reducing virtually all majors to 120 hours. This created a pathway for students who take 15 college credits per term and pass to graduate in four years. Mary explained:

There was also a move to create a standard, 120 credit hours per degree. So not every undergraduate degree is in line with 120 hours now, but for the most part they're pretty darn close. I will say the majority of them are at 120. So it's kind of a big push to get all degrees to 120, which is 15 hours for each semester for four years. So it makes sense.

John noted that before this change, the CEP student population entered UNM needing essentially remedial courses and, after the first term, would need to average 18.4 credit hours per fall and spring term to graduate in four years. The reduction of credit hours to
120 in most programs and other initiatives have, by default, allowed some students to graduate earlier.

*Advising changes:* One of the most drastic changes of the FYSC that came out in the interviews concerned advising. Patricia explained, “We went through the whole Foundations of Excellence process. At that time we were able to invest in advisors, so we had two phases, two years of adding additional advising staff.” This is one area where the impact of the HLC report continued into FYSC, as there was overlap between the response to HLC and the beginning of FYSC. Before the FYSC program, students all started in the University College with advising and general education courses, and even students who had chosen a major could not enter that college until they had completed those modules and attained certain criteria for admission into those programs. This process changed to encourage students to declare a major, place them with the college of that major, and deliver their advising and UNIV 101 course through that college. Barbara remembered, “We went from a staff size of about 16 advisors only to seven, and then we went from about 10,000 students to 5,000, and now it's been cleared up a lot more, so now I think there's only like 2,600 students, so it's changed pretty significantly.” The College of Arts and Sciences contains one of the largest first year student cohorts in its undeclared major, but a massive switch changed all students from starting out undeclared to most beginning college with a declared major. Students are now advised to decide on a major early in their college career, though they can change their major as the need arises. In addition, students in certain colleges were assigned a faculty advisor, and some received a co-curricular advisor through the ethnic centers, CEP, or other programs on
campus. Before the program started, all students had one advisor, who was often a staff advisor in the co-curricular programs.

In 2014, Barbara was in the University College Advisement Center when major changes occurred. This change shifted 80% of first-year student advising away from the whole of first-year advising at the University College Advisement Center and into each college of their majors. Thus, the staff size of 16 advisors for 10,000 students changed to seven advisors for 5,000 students in University College. Now, approximately 2,600 students receive undeclared/pre-health major advising, still taking place at University College Advisement Center. Barbara is in charge of training new advisors through a training system that started after the last HLC visit. This initiative, aimed to equalize advisor trainings through a blended approach of online training, in-person training, and a shadow component, was in place before the Gardner initiative commenced. Barbara acknowledged the value of continued improvement in advising, especially as it relates to skill-building and system-wide assistance for advisors in shifting from merely scheduling classes to joining the “front line” of students to overcome various issues (Family, financial, etc.) by building a sense of trust. However, Robert mentioned that some advisors have left advisor jobs to become administrative assistants because those positions receive higher pay, “There have also been a lot of efforts to hire more advisors and their serious ongoing now to find ways to raise salaries of advisors” he continued, “HR was saying, “We are seeing advisors switch administrative assistant jobs, because they pay more.” The Provost Committee on Academic Success (PCAS) has expressed concern in this regard and is working to raise the compensation of advisors across the UNM campus. Turnover in advising is particularly damaging in view of the training it
requires and the personal relationships that are lost when an advisor leaves the position. Barbara shared that the UNM advising corps is paid at a rate of 75% of their peers at comparable institutions. There is thus a high turnover of advisors, as their salaries are in the low-30,000 range. While UNM is now within NACADA standards in terms of its number of advisors, the turnover has rendered maintenance of such standards difficult.

Faculty advisors work in tandem with professional advisors at several colleges, but some colleges have only professional advisors. In the colleges of architecture, education, engineering, and fine arts, faculty advisors collaborate with professional advisors. There was previously a director of advising services, but the FYSC reformed the engagement of chairs and directors with faculty to improve college retention. While the addition of professional advisors in each college has increased accessibility and communication within the colleges, there are certain aspects about the chosen field of study that faculty advisors are uniquely qualified to speak about to students. However, the faculty must be skilled in triaging students who are in crisis. Beyond office hour visits or advice to “work harder,” students sometimes need help with time management or financial issues. Incorporating all of the student services from the faculty who directly engage with students is key to intervening before the roadblocks that students encounter become crises.

A student who had such a crisis, David was a highly achieving student in his high school class, but he required six years to graduate with a bachelor’s degree from UNM. He attended the new student orientation in the summer of 2012, lived on campus, and followed all of the indicated guidelines. However, he was destined to spend six years at UNM in the pursuit of a bachelor’s degree. During his first year in University College, he
did not have a specific advisor and met a different advisor every time. Thus, there was no personal connection; the advisor would simply read his file and try to help. David stated, “I think having one person who really understood my needs and knew me personally, could have helped me recognize that maybe this architecture wasn't what I thought it was gonna be and what I really wanted to do instead of having other people essentially saying, well, try this.” During his time in athletic training, he worked with one advisor who kept him on track. David believed that if he had started in architecture in his first term, he would likely have determined sooner that he did not like the program and graduated one year sooner.

John explained that advising changed from holistic advising to a direct push toward major declaration, this signaled a significant shift for the university. He observed that this approach seemed effective for the first year student population, as they knew how to initiate contact, but transfer students often did not. Advisors are trained for six months through a web-based course that includes shadowing and a few in-person sessions and a reflective journal to review growth. Monthly advising matters training (the monthly training that is required of all advisors) for about 70% of all advisors, and a start of term advisor institute, are all important training changes related to the HLCs 2009 report. Since student affairs advisors can no longer release holds, all students now visit their academic advisors to have holds removed. Prior to the changes, advisors were often busy, so students would have to return to the co-curricular advisors for assistance. Many students now have additional support. All data suggest a benefit of this help, but not all students like the process.
John credited the provision of advising by only one person for avoiding the distribution of conflicting information. Consistent, coordinated messaging is important, and students seemingly appreciate the extra level of attention from a team of an academic advisor and student affairs integrated advisor. From a financial standpoint, Michael commented that each student who departs without completing a degree incurs a cost to the university. More importantly, these students leave without a credential after spending or borrowing money. John also noted the advising focus changing from a general first two years in University College advising, and then moving to the majors was based on the much higher graduation rates that the college advisors had on campus. John reasoned that they should have been higher because they did not receive any advisees until junior year, while the majority of the attrition occurred in the first and second years.

Carmen also highlighted the value of having both an academic and a co-curricular or holistic advisor. She mentioned the Certified Academic Coaches program through Central New Mexico Community College (CNM) that guides students to independently reach an answer instead of giving them advice. The conversation is different because the coach is completely neutral and does not offer advice but rather guides the individual to determine which option is optimal for him or her. A common saying at El Centro is that every student is “whole, complete, and creative,” as the organization worked to help students across the spectrum. Students who struggle with one or two classes have options: they could enter late-start or eight-week courses (although such condensed versions are often more challenging than the originals).

Orientation: As a part of the Gardner initiative, orientation was completely redesigned. FYSC aligned messaging from the University and ensured it remained
consistent from the admission letter to the first 21 days; it aligned the same fonts and backgrounds and all written communication. Previously, admissions had even listed some majors that the school no longer offered, a circumstance that caused confusion. Margaret noted, “The complicated scenarios go from myth to reality for people.” At the end of the day, students need to perceive the university as a well-functioning machine. The change led to a 14% improvement in student satisfaction with the orientation program, thereby better meeting student expectations.

The FYSC process reorganized orientation was mentioned by several respondents as a generally positive part of the change. There were originally two orientation programs, one from CEP and one simply named simply “new student orientation.” John explained, “Our two departments actually…co-direct new student orientation and so, prior to 2013, there were two orientations on campus, so we combined them.” The FYSC combined the efforts into one program, taking every aspect of orientation into account. Additionally, every new student is now required to attend orientation. Although expectations are built, students often struggle to succeed and find help when they encounter their first obstacles, which compel them to change their production level and learn critical thinking skills (Bloom’s Taxonomy). However, the mechanics are often cumbersome, and students need to find the resources.

UNM continues to strive to find ways to best serve students. As one example, since students are mindful of costs, an idea that UNM has considered is waiving the $175 orientation fee by taking an online class with the same information, however an impactful orientation must have an in-person component at some point. For example, it could have online content in addition to an in-person orientation to create connections. With the
FYSC, students receive more of the language and basics of college from orientation. Although it has become more student centered, the initiative has not reached 100% of students. Nevertheless it has achieved significant strides to provide opportunities, such as UNIV 101, freshman learning communities, and transitional UNIV 101 courses for transfer students.

Michael discussed the role of orientation in setting student expectations. The experience of orientation is coupled with an in-person meeting called Class-up Day. This day offers an opportunity for students to sign a banner that targets their specific graduation date with a specific group of students. This option conveys expectations for a four-year graduation, and while only 28% of UNM students actually graduate in four years, such an event is thought to encourage this achievement.

Nevertheless, Sarah explained that some students do not know what to expect from college; some hope to obtain a job, while others seek the experience they have witnessed in popular culture. According to Sarah, expectations and realities in orientation are starkly different. The main focus of CEP is to establish a connection with these students by fostering a sense of belonging on campus. They cultivate teamwork and ultimately build relationships before school starts.

When the orientation diversity component of the “Wall of Prejudice” was lost, Carmen noticed that there seemed to be more on-campus issues regarding student understandings of diversity at UNM. The wall of prejudice project continues at other
colleges and is described by Carrera (2015) as, “…people…write hateful words that others have used against them on the wall. They hope that'll get people talking and give them an opportunity to make a change within the campus community.” The CEP orientation allotted time in smaller groups for students who needed additional guidance. It is beneficial that the program is now available to every student through the revised CEP orientation (ExceedU); however, the small group support element may have been sacrificed in the process. Still, Carmen found that the CEP orientation was valuable for many of her friends when they came to UNM.

Michael notes that the experience in orientation is focused on the student’s value, graduation within four years, and intentional advisement. If students want to change their major at orientation, they can change there [at orientation] to ensure they receive appropriate quality advisement. He felt they had already addressed the areas of organizations, relationships with the faculty, research and internships, maximizing the college experience, and communicating with professors about expectations in college. However, Michael said that further efforts were possible to build engagement with the Lobo identity: “You really do have to make a friend at orientation to encourage yourself to persist and be retained, so content is important, no question, and it reflects our priorities, but we also try to give them opportunities for connection.” Key aims are to become a more holistic student and focus on four-year graduation. Orientation now offers an optional math placement exam, reinforcing clear expectations for placement. The orientation leaders are among the first and most influential peer mentors. Including these students in orientation is critical to allow students to affiliate with them, as they likely would not connect with an adult in the same way. Orientation leaders are also encouraged
to continue to foster relationships from orientation even after the orientation’s conclusion
to continue to build a community and promote attendance and retention.

The orientation curriculum should offer the first introduction to the content of UNIV 101; however, the two curricula are not linked. With a longer duration of orientation, it would be possible to offer credit, and students could start their journey at UNM ahead of schedule. Michael posed the question, “if it costs a bit more, but it may save a student in the long run, why would we not do that?”

Margaret talked about the ability of administrators, staff, and faculty to help students at the institution not only benefit from the knowledge they receive from UNM through their degree but also embrace their uniqueness. She discussed how information from students’ culture, family, and selves could enrich the body of knowledge as a whole. Margaret’s main point in orientation concerned communicating to students about a university education is that the college has knowledge the student needs, but the students have unique experiences that they can share with the college community. College can impart knowledge, but each student has an individual viewpoint that can only be heard by sharing his or her story.

**Declaring and changing major:** An issue that emerged was that students often do not know how to change majors and switch to another college when they are not doing well. Several interviews reiterated that students often struggle to believe they can succeed in college when they do not meet expectations in one college and are failing, unable to complete the work, or do not enjoy the major as much as they thought they would. Mary commented, “I don't think they always do [know how to navigate the change]. I think that the resources do exist, but I don't think they always know how to get to the resources.”
For example, a student who aims to become a medical doctor but performs poorly in college-level biology may feel that he or she is not suited for college and consequently drop out instead of visiting other colleges at the university to consider all options for a major.

Integrated advisors are often found in support staff positions in Student Resource Centers. While they are not primarily academic advisors, they often work in conjunction with academic advisors to support students in their programs. Barbara explained that students who wished to change their major must consult the advising center of their new major or contact University College Advising to determine the next major. Integrated advisors in the support services field guide students toward success. The ability of integrated advisors and academic advisors to cooperate with one another is key. When students meet with their academic advisor and need additional help that is not available from that advisor because of skill or time restraints, they should be referred to an integrated advisor. In regard to academic advising, the integrated advisors should know who to refer students to for academic advising, since students trust that the advisor will guide them to the appropriate college. Barbara recalled that student government candidates had recently run on a platform of improved advising. She offered to meet with them and work together as well as attend a student government meeting, but the students ultimately chose not to meet with her. During the election, Barbara heard a conversation covering multiple points of view, one of which was that the student had received five academic advisors while at UNM.

Despite its numerous support structures, students sometimes struggle to understand that they can easily locate support to help them find success in their chosen
major before they consider changing majors or dropping out. UNM can operate in silos, and students may not see a clear path to success at UNM. Sarah explained that the introduction is not an issue because students have all heard about it, but orientation presents so much information that they likely remember only vaguely that there is specialized support. Then, when they need it, they do not know how to access it.

According to John, one controversial concept on campus was the “recreation of dreams,” which proposed that students should be “cooled out” of areas in which they were likely to struggle. Accordingly, advisors would guide them to degree programs in which they could be successful and graduate. To clarify this issue, Robert provided data from a study that was conducted five years ago, which examined college algebra students entering STEM programs. Moreover, 40% of STEM graduates at UNM have taken college algebra at the university, a course that is below expectation for a STEM major. If all students who were not sufficiently prepared in math were “cooled out” of STEM degrees, the cohort would lose at least 40% of its graduates. It is difficult to identify the connections in math, as majors in each college algebra course are so numerous that instructors cannot teach specifically to any one major to illustrate the practical relevance. New classes, such as the trigonometry/calculus course that is paired with a one-credit engineering course, can more feasibly demonstrate the applicability of the skills.

Despite the extensive progress, many efforts remain. David mentioned that a direct entry into architecture would likely have reduced his UNM experience by one year but additionally remarked that single-entry-term programs tend to force some students to wait a full term to join the program that they would like. This delay costs students time and money and has the effect of lowering institutional graduation rates.
Changes in Math: Changes also included a complete redesign of mathematics. At UNM, about 60% of students had been entering below the core math level. Moreover, some students were taking remedial courses that preceded Intermediate Algebra. Pre-college and introductory level math courses have moved from paper and pencil to online Aleks-based courses. The required core gateway course was Math 120-Intermediate Algebra, considered a “killer course,” and every department expended substantial effort to determine precise barriers for students. Mary noted with pride:

I have 26 faculty fellows that we've pulled together [for] support from a number of different areas working on redesigning their killer courses and their other entry or lower division courses so that students can succeed and also can get access to research opportunities from the get-go or get access to community engagement opportunities ...Those things are just so cool, and I just love seeing everybody's passion.

In math, the university found that most students only needed two-thirds of the course to succeed at the next level. Thus, the course was split into three one-credit courses, allowing students to take required courses and be excused from the course if they did not need the last credit for their major. The university also moved to an online program that allows students to proceed at their own pace. After students are tested for their ability level students now move through two credits in most majors and three for majors that are more math intensive. Linda explained, “The Mall does sort of self-paced learning, that was a big response to that…That course was keeping the students from getting into different majors.” As a result, the passage rate of this course increased from 32% to 85%. The process was successful, as it placed students in the appropriate courses
and delivered the information that they needed to be successful in their subsequent courses. In addition, the passage rate of follow-up courses evidenced no decrease.

To assist students who enter the university with a below-standard math ability, the curriculum has less math content in Intermediate Algebra (75% versus the former 100%) and incorporates other skills that students lack at a lower math level. The passage rate increased from 76% to 88% in two years, and, while the program initially involved 800 students in the course, only about 300 students required the course this past fall. Since these lower-level students are at risk, the remaining 25% of their grade is based on attendance of faculty office hours, faculty-led and peer study groups, and CAPS to learn additional study skills. Furthermore, if a student feels misplaced, a test is available to determine if s/he has the ability to move forward. A lack of proficiency in math is a symptom of another issue—“math phobia”—resulting from students avoiding math for years or never finding success in the subject. Margaret asserted, “Other students who always just struggled with math---math phobia is the worst thing of all. It drives me crazy as a computer scientist… There is no anti-math talk allowed around me.”

Previously, a non-credit-bearing remedial math course was offered on basic pre-college algebra. Students failed this course at a high rate, which caused them to stall out of school, as they wasted a semester of no credit and often did not pass. The class is now split into three one-credit-hour units, which students can take in the order that is most suitable for them. Thus, if one credit hour is failed, they do not lose the entire term, and only have to repeat the portion of the course that they failed. If they can pass geometry but not variables, then they only fail one of the credit hours. This approach is consistent with the math mall, wherein students follow a self-paced course in terminals in the math
mall. They can retry the lessons as many times as they need to comprehend the concept.
The longer students delay passing the pre-requisites, the longer it takes them to reach
college algebra. If they cannot accomplish the math skills, then they cannot complete the
necessary courses, particularly if they are interested in STEM fields.

Assessment: Assessment is a key piece of the Foundations of Excellence and as
soon as the plan was implemented by the First Year Steering Committee (FYSC),
assessment of the efficacy of the program began taking place (Wentworth, 2014). The
presence of assessments was noted throughout the study and the improvement had been
noticed by national organizations. Margaret said, “Assessment was a big thing we
established. I actually had an opportunity to serve as the keynote at the UIUP Assessment
Institute, to talk about what we've done with high-impact practices at UNM.” However,
assessment was not as robust as it could be and certainly did not provide a beneficial
quality of feedback. This issue was cited throughout the campus. When the new dean
entered the University College following the departure of the previous dean, the teaching
faculty were asked for their assessment data on UNIV 101; however, none existed.
Margaret remembered, “No one had anything. Nothing at all. So, I was tasked with
creating an assessment program for all of those things.” The dean of the College of Arts
and Sciences tasked Margaret with integrating learning outcomes and designing a clear
assessment. Now, the faculty members who team-teach the UNIV 101 courses hold pre-
and post-discussions of outcomes, future intentions, and plans for adjustment in the
coming year. Additionally, the UNM campus-wide student surveys include questions on
student support to assess student perceptions of support opportunities. The assessment
question is ultimately, “Did we meet our learning outcomes and work to improve the
courses rather than ticking a box?”

Reporting data to the departments and divisions and directly to the faculty is more
robust than it was prior to the program, and each group receives regular feedback during
the term to refine the course. Students were also assigned to academic groupings for
UNIV 101 regardless of their involvement in the ethnic centers or other groups.
Moreover, through a program titled “Pizza with a Prof” a professor visits residence halls
to meet students in their residence hall. Another group that meets monthly is the
President’s Committee on Academic Success (PCAS), whose primary objective is to
connect on student success across campus constituencies.

One of the concerns that arose in the discussion of possible cuts is that, by
implementing these efforts simultaneously, UNM recognizes that they work in
combination. The impact of individual changes on overall retention and graduation rates
is difficult to ascertain. Mary wondered, “Which programs would you cut first if it came
to that?” The programs all work together, but financial realities may force decisions that
could threaten progress and momentum. Barbara explained that assessment occurs
through student surveys, but a peer review committee considers how UNM compares to
its peers on the basis of websites and programs that act as internal consultants and
provide recommendations to departments. Barbara acknowledged these measures as
progress but nevertheless identified assessment as an area that warrants improvement.

Robert explained that the ways in which UNM engages students require constant
improvement, especially in regard to under-represented groups. Robert explained:
Especially students who are first generation, low income from rural communities who have been marginalized in educational opportunities up to this point. There are ways that we [UNM] engage students outside the classroom and that’s a real difficult challenge for us because so many of our students are coming from low income families. They have to work, to go to school. At UNM, the first two years are crucial, as they involve the highest loss of students. Only 6% of first year students enter prepared for calculus, so students in STEM majors often start off at a disadvantage. The baseline of many STEM degrees is calculus, so if a student must first finish all the possible pre-requisites, the delay may add as many as two years to their degree program.

Michael noted that orientation is assessed according to the following objectives:

1. Percentage of the incoming student body that participates in orientation
2. Expectations of students
3. Academic policy and consequences
4. How to register for courses
5. How to find help
6. How to get involved on campus

Michael acknowledged the value of increased student involvement in assessment of the program. Although there is an assessment for orientation leader training, it is the only survey that is conducted. In addition, orientation leaders help to improve orientation from session to session.

According to Jessica, CAPS surveys students and holds student focus groups to facilitate assessment. Given the limiting factor of a lack of voluntary participants, there
needed to be an incentive (i.e. free food) for students to participate in the focus group. Sarah added that UNM, whose writing and language center is hosted by CAPS, judged a change in attitude among students as they gained confidence in their writing. Other colleges that include the writing and language center within a specific college implement grades to review progress; however, a disadvantage of situating the writing and language center in any one college or department is the resulting impression that the help is intended only for that department or college. Tutors conduct observations and grade each other on the pedagogy they use to help students. The optimal assessment would be a multi-year examination of the same student cohort. Other colleges have taken this measure and observed real change in grades and attitudes.

Elizabeth explained that CAPS has 150 student employees, and each area has weekly leadership team meetings wherein the students provide feedback. In addition, a survey is e-mailed to each participant in CAPS to learn from students and make changes based on the findings. The student government is also involved given that it partly funds CAPS. Moreover, there is now a “secret shopper” program in which students come in to use the services and provide feedback on the entire experience.

The 2009 HLC report found that one concern that seems to warrant additional attention is the lack of assessment (HLC Self-Study Team, 2009). Despite progress, many programs have operated in parallel as part of the FYSC initiative, so while assessment takes place, it is difficult to delineate the impact of each specific program. UNM indicated plans to continue to work to improve assessment of programs in the future.
Conclusion of Gardner/First Year Steering Committee

The FYSC initiative is no longer active but is in redesign. The Gardner initiative involved a process that allowed the campus to feel unthreatened while still instigating UNM to make changes to improve student success. With accreditation pending in spring 2019, that project has assumed priority over other initiatives. Change has been advanced by talking to groups across campus which do not recognize the “bigger picture” or need for change and explaining it as a goal of the president and provost. Change certainly occurred prior to the Gardner Institute project, but it did not develop at such a rapid pace as that of the increased student success between 2008 and 2018.

Robert expressed a belief:

There is a life cycle to big institutional initiatives like FYSC that if you don’t very carefully replenish it, it just kind of naturally starts to fade. I really think that’s what happened with our first year programming. We started out with Gardner. It was big. We had a packed house over at the SUB (Student Union Building). Everyone was excited. The committees were full, and it moved very quickly…and then, as the tasks started wrapping up, new tasks and initiatives were not implemented, and eventually the FYSC just stopped. It was a major focus, and there was an outlet for the efforts, but we have to find a way to sustain it. Enrollment now is likely filling the role of FYSC and growth in enrollment is crucial, but both committees could work on the problem jointly.

The change started with a reduction in most bachelor’s degree programs to 120 hours, degree mapping that created clear pathways for graduation, and re-imagination of entry-level and remedial courses. Mary believed that these changes were responsible for
the increased retention and graduation rates. The FYSC initiative had a greater impact than was originally intended, but seems to be at the heart of the “perfect storm.”

External Forces Impacting Efforts at UNM

While many pieces of the research led to outcomes that UNM clearly strived to achieve, forces external to UNM surfaced that impact the efficacy of UNM’s efforts to improve student success.

Economy in New Mexico: There is a perception that there are not many job opportunities in New Mexico, impacting how students approach higher education. However, there are some high-tech jobs and large energy and working sectors. The strong energy economy and new jobs in New Mexico may make it difficult for students to recognize the value of finishing a college degree. “Brain drain” in New Mexico among students who graduate from higher education is a significant problem for the economy. Unlike specialized jobs in engineering and medical professions, some areas do not necessarily offer high-paying jobs in which students are interested.

Michael cited the strong economy, and particularly energy production in the Permian Basin on Southeast New Mexico, where workers can earn $21 to $25 per hour. Meanwhile, higher education consumes student resources. The current college-age generation is more aware of costs and thus conscious of the credential versus the value. If students do not perceive their first-year courses as valuable, the effect may be exacerbated.

Ultimately disparities exist in New Mexico’s socio-economic makeup. Margaret painted a picture of the stark education realities that often shape student expectations in New Mexico:
They come expecting us to give them something, but I'm expecting them to help us by creating new knowledge. And I would say this at student orientation every week for six years: We've never had you nor your community [meaning that each student carries the knowledge from their upbringing and a unique perspective]. So, I would give examples. For those living here in Albuquerque: “Why was there no movie theater in the entire South Valley until about three years ago [The South Valley has a lower socio-economic makeup]?” “Why are there underground wires on the Northeast Heights, a higher socioeconomic community, and everything else is above ground wires across the rest of the community?” “Why are there 90,000 students in the Albuquerque Public School (APS) district, split up between the west side and the east side, but four out of the five school board members come from the east side [the east of Albuquerque is a higher socio-economic area], and there's only one from the west side?”

Students at UNM come from a state that is very racially diverse statewide; however, the socio-economic disparity within cities can be stark. Students who are from different socio-economic backgrounds may not realize that there are differences in the state based on the income of residents of certain areas. The economy of the state as a whole relies on helping New Mexico residents gain the knowledge and skills necessary to improve the economy statewide.

It is difficult to correlate between the ebbs and flows of the economy and student attendance, retention and graduation at an institution. The researcher cannot say that there was or was not an impact on the outcome by the economy.
**Cost and the impact of the Lottery Scholarship:** Many students attend college largely through funding from the lottery scholarship. The lottery scholarship was cited by several respondents as a great benefit for students who qualify, and conversely, losing the scholarship was one of the primary drivers of students leaving the institution. Patricia mentioned, “We talk about ‘my tuition was essentially free as an undergraduate.’ I do think that that has had a really large impact on the access and affordability for students that maybe would have never come to college come to college.” The lottery scholarship presents a financial incentive for students to attend in-state schools; however, “students often don’t have exposure to major choices before they arrive, and it can be difficult in setting expectations,” according to Robert. Additionally, the lottery scholarship has reduced its tuition payment level to 60% and imposed additional restrictions, and several interviewees explained that students who lose the scholarship are significantly more likely to leave.

Carmen believes the lottery scholarship helps students enter college, especially by preventing the need to take out loans. Students who lose the lottery scholarship tend not to return to school, often resulting from the first “bridging” or “qualifying” semester of 12 credit hours, a 2.5 GPA, and no break in enrollment. Since the lottery reduced coverage from 100% to 60% (and the bridge scholarships follow that trend), a balance remains after their first term, and even strong students can lose the lottery scholarship and drop out. Michael believed that the financial burden often causes students to depart, but they may not fully understand all the resources that are available to them. There is a financial incentive to take 15 to 18 credit hours, as it costs about $900 less to take 15 hours than to take 14 hours. It is likely that UNM will continue to increase tuition rates
and impose budget cuts, as its enrollment declined significantly in the fall of 2018. Robert stated, “If there is no value added at UNM, then they will take the course at CNM because it is less expensive. The need for UNM to demonstrate value added in the Gen Ed core is a hot topic on campus.”

David mentioned that finances were challenging after his lottery scholarship ended in the middle of his fifth year. He visited the financial aid office several times, but his only options were loans. He believed that if it were possible to touch base with students when they are about to lose their eligibility or their GPA disqualifies them, then they could have all their options explained and potentially be retained. John believed that the lottery scholarship helps students attend college and encourages some New Mexicans to remain in state. People consider price versus value and often decide that a school that is more expensive, even if it is out of state, is more suitable. Students who lose the scholarship may not return, though the lottery scholarship is only approximately $2500.00 per year at this point. There are options, such as a winter session, but some students do not take the time to meet with an advisor to arrange them.

Barbara admitted that there is misinformation about which expenses the lottery scholarship covers, and these may lead students to not fill out financial aid forms. This impedes their ability to fulfill the scholarship’s requirement of registering for the second semester. Barbara recalled hearing that New Mexico was once in first place in the country for college attendance but ranked significantly lower for students entering the third semester. Barbara did not believe that the implementation of the lottery had a negative impact on graduation rates and explained, “We weren’t graduating them in the four to six years back then either…so that graduation percentage more or less held, but
with a larger population.” She also posited that, prior to the lottery scholarship, the focus on enrollment was less prominent, and, at that time, the attitude toward attendance and success was far more relaxed.

**Student Preparation:** New Mexico high school students often do not arrive at UNM with the skills necessary to achieve success in first year coursework. According to John, high school students in New Mexico have expectations that include attending college, but they do not know how to achieve that goal. Preparation of students coming to UNM from New Mexico schools is varied and results in a broad diversity in preparation. Linda described New Mexico as an expansive, poor state with a sparse population that yields students of diverse backgrounds and preparedness levels. Linda described:

> We have a flagship Research I institution because of the nature of the state, right, where we have a kind of spread out, very sparse population in a very, very poor state. So the students who come in as undergraduates are kind of really at very different levels of academic preparedness. We have students who come from reservations. We have students who come from small rural areas. And then we have valedictorians of very good prep schools.

Schools in New Mexico are highly inconsistent in terms of the preparedness of students completing their programs. Carmen noted, “Students across the state seem to lack the ability to think critically.” Elizabeth explained that CAPS is especially helpful for first-time full-time students in making the transition from high school courses and not necessarily as rigorous as those at UNM.

An external force that may impact graduation rates is dual-credit courses, which are offered throughout the state through an initiative of the Public Education Department
(PED) but exhibit varying levels of quality. While the concept is positive – to give students a preview of a college course and start their thought process toward degree attainment – the reality is somewhat different. Many students transfer in dual-credit courses, but there is concern that these courses serve as pre-requisites, and the courses may not prepare students for the rigor of coursework at UNM. This outcome in turn negatively impacts progress toward a degree and graduation (The Gardner Institute, 2018; Tinto, 2012; Complete College America, 2018).

**Government participation:** Several interviewees believed that the state’s actions in making decisions for higher education without any input is a challenge at UNM. For example, remedial courses were cut almost overnight when Governor Martinez came to campus and announced the change without broad notice or discussion in the higher education community. Margaret (2018) mentioned that the governor had visited UNM and announced that New Mexico colleges and universities would no longer offer remedial courses. The *Albuquerque Journal* (Reed Jr., 2015) reported this event as well as the development of New Mexico joining Complete College America without a major discussion among higher education institutions. Margaret remembered “…Governor (Martinez) came and said, don’t worry, there’ll be no more remedial education at our research institutions, at UNM. That’s how we found out: she showed up on campus and said it.” This decision created a crisis of removing non-credit-bearing remedial courses and moving them into credit-bearing courses while ensuring that students have the ability to succeed.

Linda noted that often UNM will gain a grant because is an attractive granting institution, however it often loses its ability to continue efforts at the end of a grant due to
funding. One example is the peer tutoring corps that was grant funded; when the grant ended, those efforts terminated as well. However, CEP was able to retain peer mentors who focus on the math mall as part of their structure.

**Safety:** The safety of the UNM campus and Albuquerque in general is often in the news and was considered in this study as one potential consideration regarding retention and graduation. Campus safety, including perceived campus safety, is a factor of student choice and retention. John mentioned that when students travel home for Thanksgiving, they compare experiences. It is unlikely that other students would have received two alerts about carjacking at gunpoint in the span of five hours, but this experience was reality for UNM students. Most student experiences on other campuses do not involve this level of crime, so such campuses are perceived to be “safer” and might attract students away from UNM. Therefore, it is imperative to find a way to combat crime and project an image of UNM and Albuquerque as safe places to attend school. David said that the safety of UNM and Albuquerque did not impact his decision to remain at the school, but he did encounter a couple of difficult situations while at UNM.

**Changes at UNM since Gardner/First Year Steering Committee**

One of the most poignant moments for the researcher in the study was the realization that while FYSC has disbanded as an organization and the Provost’s office is considering its replacement, efforts toward improvement continue across campus. It appears as though UNM has a positive student-first culture on a campus that continues improvement unabated, regardless of an impending accreditation or other events.

**Continued Improvement:** The process of marketing and publicizing the services of CAPS is largely student-led and utilizes new approaches through social media and
YouTube to make and share videos about the programming and availability of tutoring at CAPS. Additionally, faculty can ask students who work for CAPS to deliver a presentation on available services to any class. Some faculty have utilized this opportunity, providing the chance for students to learn about the availability of services from a peer. Tutoring services are heavily employed, as evidenced in the photograph of the CAPS in full use (Figure 4). However, the space has sometimes limited the availability of tutoring. Jennifer believed that high utilization of CAPS has a positive impact on student retention. According to Carmen, tutors with CAPS can only offer support in courses that they have personally taken or if they exceed the knowledge level of the student. Online tutoring is limited once students reach subjects such as calculus, which are cumbersome to tutor online. In addition, CAPS has a new YouTube channel that offers short videos intended to address challenges that students may encounter and instructors can use.

Carmen directs the online tutoring initiatives, which are new to UNM. She believes that student services are well utilized but could be utilized more. In her interview, Carmen pointed to the positive outcomes of the tutoring center but also wondered how the center might attract and serve greater numbers of students. She
pointed out that the University of New Mexico operates one of the largest home-grown online tutoring programs in the country, serving about 30 students per week through the online learning center. She also noted that the Center is working to increase awareness of the online tutoring support. The first semester is especially challenging for students, and since, outside of classes, even the acronyms, processes, and services can be overwhelming and disorienting in that initial term. She reflected that the resource of an award-winning tutoring center is valuable, but students first need to know that it is available. Some students succeed academically regardless, but without connections, at some point, students do not receive as rich of an experience of engaging in the campus.

In an effort to continue to improve teaching and learning, Linda noted that in 2017 an annual teaching conference for instructors was launched and last year the event focused on native pedagogies. However, the Center for Teaching and Learning (CTL) desired for each of the native groups to define the terms in which they would like to be engaged. This is a work in progress, but has great potential for the future.

**Opt-in Text Program:** A pilot program on a growth mindset by CAPS through a Blackboard module aims to facilitate a strong start for students. It assists students who have encountered their first obstacle, such as a test, in learning to seek the help that they need. This opt-in program is operated by Karen in Enrollment. Karen mentioned that in this program, “admission put it on their admission application to let the students opt in, if they wish, or…opt out if they don’t…as a result we’ve increased our number of participants.”

The program is not universal but provides a channel to stay connected with students who use it. The program is set to reach out to students at pre-determined times
during their first year and initiate contact so staff at UNM can gain feedback from students. While this program was often listed as a benefit to UNM, it was also noted at the group lunch on January 15, 2019, that they have reached the numerical limit of students who can be involved without investing more financial resources into the program.

**Budgetary Implications of Support:** Patricia explained that UNM is a 3 billion dollar organization. In this structure, 75% goes to academics. Main campus makes up about 800 million of the budget; of that amount, 75% is academics with 310 million dollars in tuition/fees and state appropriation. This equates to 60% from the state, 40% from tuition and fees. Reductions tend to be allocated based on the proportions, but they are working on metrics to determine where to take the cuts vs. taking them across the board. Patricia noted with concern that, “I do think that unless we do some major reorganization or restructure of the institution, we might start to lose some momentum on our student success outcomes, because there's just not the resources there to invest. Although it is a top priority and I think it will continue to be a top priority, I do think that if you asked across campus, there is a fear that some of that momentum will be lost.” The enrollment decline has resulted in a 7.6 million dollar loss at UNM, so the momentum it has gained is at risk due to reduced funding. While student success at UNM is a top priority, resources are limited.

UNM keeps revenue that is generated by research separate and those dollars flow into the office of research to prioritize productive areas and direct resources accordingly. This separation allows research to utilize their dollars and the educational mission to utilize theirs. In the case of the decreasing enrollment, higher graduation can mitigate
enrollment issues, particularly among out-of-state students, who may be more concerned with rankings. Barbara mentioned that UNM is working to be creative with its resources, but students frequently need incentives to engage in programs, and such incentives often do not exist. Some ethnic centers have emergency scholarships or loans, but these resources are dwindling.

The conversation with Michael also addressed the new reality that UNM faces: a major decline in the student population and the impending financial concerns. The new public-private partnership of UNM with the Rainforest in central Albuquerque is a valuable tool in the state’s pursuit of a stronger economy. However, declining enrollment and cuts to state appropriations may hinder future progress. The cuts and declining enrollment present a more pressing issue, as the sustainability of current efforts may be in jeopardy if the cuts are too severe.

Finally, UNM Athletics has been in the news recently due to several financial issues (Schmitt, 2018). Athletics has received reserve balances, partly covering losses that attracted attention in the news. UNMs administration has moved the fiscal portion under the academic purview and are considering ways to combine efforts and find efficiencies across the UNM System.

**Research Question Outcomes**

Through the process of the study, the research questions were considered. The accomplishments at UNM have not been recorded, including in any articles aside from one *Albuquerque Journal* article that illuminated one area of the transformation. Thus, the whole story has not been told. The research questions provided a format for the story, which this study has clarified.
How does UNM set and reinforce student expectations?

Setting expectations for academic success at UNM begins in admission and new student orientation. The objective of the orientation is to provide a clear and consistent message to students and reinforce that finishing in four years should be a goal. To this end, orientation is designed to facilitate necessary placement tests, transcript evaluations, and advising. Moreover, it hosts a variety of sessions on areas of interest and promotes the overarching co-curricular goal of establishing at least one friendship during the orientation. In addition to the standard, mandatory orientation, there is an optional CEP orientation that provides advanced assistance to students from rural and low-income families in the two days before the orientation.

Reinforcing student expectations during the academic program occurs primarily through advisors, who help students choose courses. More importantly, with the FYSC initiated change whereby students are directly placed with college advisors, it is even more imperative to immediately clarify expectations for the entire program of study.

One area of difficulty is the establishment of expectations when students are in the admission process, during high school, or prior to arriving at the university. Students may not be prepared for the rigor of the college-going experience at UNM, and they may be unaware of the skills that they lack prior to arriving at orientation, completing the placement exams, and determining their fall schedule.

How does UNM handle advising, and is it effective?

Advising at UNM is handled primarily by the college advisors in the students’ majors. Some undeclared and pre-professional students are advised through University College Advising, but the majority are assigned college advisors and encouraged to
declare a major before the first day of classes. Training is institutionalized and required for all advisors and involves an online portion coupled with in-person trainings and a shadow program. The changes in advising since the last HLC visit have been significant, and the student-to-advisor ratio has improved. One area of concern is the compensation of advisors at UNM is below that of their peers and even below the salary of administrative assistant positions at UNM. Despite room for improvement, the current advising system does seem to be supporting retention.

**How does UNM provide curricular and co-curricular support?**

Student support at UNM extends back as early as the 1960s with the initial grant that started the CEP. Since that time, support for students has expanded vastly. Curricular support is primarily delivered through CAPS via individual tutoring, group tutoring, writing help, and peer mentors, who enter classes as role models. These means, in combination with efforts across campus, have improved retention.

Co-curricular support is provided through Student Affairs and various organizations, including the ethnic centers and the CEP. With the changes in advising, many former advisors now fit into this category, as they are holistic advisors who provide an additional level of support to students. Thereby, the process of curricular and co-curricular support has been enhanced significantly at UNM.

**How does UNM assess student success programs?**

Assessment of the student success programs repeatedly emerged as an area that warrants growth. It was noted as a difficulty given the multitude of initiatives that occurred simultaneously. In the same regard, the immense progress would not have been possible in such a short period of time if the initiatives did not operate in parallel.
Assessment in some areas is moving beyond traditional methods. Barbara noted, “I do the traditional surveys, but also right now I'm doing assessment by looking at websites. Because I actually have a committee that's called Peer Review, that right now we're looking at websites, and then the next step is going to be assessing practices, determine if they're student friendly, or overly bureaucratic, that sort of thing.” In most areas traditional methods like student surveys and student focus groups were utilized to assess the programs and courses, but all accounts suggested that more efforts could focused on improving assessment.

**Summary of the Findings**

The HLC report was the dominant impetus for change in at least two areas – advising and governance – which seem to have impacted the others. Additionally, since the new HLC processes require a quality initiative for each accreditation, UNM partnered with Dr. Kuh to determine the most effective strategy and to help build support for the initiative across campus. Through the Kuh consultancy, UNM chose to partner with the Gardner Institute to prepare for the 2019 accreditation. The Gardner Institute Foundations of Excellence program was organized under the First Year Steering Committee (FYSC) at UNM. Through the FYSC process UNM made significant strides in retention and completion rates. Additionally, while leadership has been significantly changed at UNM during the course of the last decade, the change agents at the University continue to strive to improve student success. At least in UNM’s case, the accreditation process provided a catalyst for change. The document review indicates that the changes since the HLC findings and subsequent monitoring report demonstrate effects in the documents and websites.
The interviews corroborated the changes in advising at UNM and their positive outcomes. While the observations did not reveal the history of the change, they did offer insight into the outcome: A decentralized advising system with a centralized training function, as the 2009 HLC report has suggested. The visit by George Kuh and partnership with the Gardner Institute resulted in the FYSC, which was the primary implementation tool for the changes at UNM. While most changes are positive, further improvement in the retention and graduation rates at UNM will likely rely on effectively reaching students who may be struggling in their chosen major, but can be successful in a major they have not considered.

The decrease in hours to graduate, to 120, likely by itself would have positively impacted graduation rates. Additionally, the change in math directly addresses such issues and has permitted some students to match the progress of their peers and progress as quickly as their work ethic allows. Previously what could have been several semesters of remedial coursework can now be completed as a self-paced module in the math mall. The organization and curriculum of orientation has changed to highlight the school as a Carnegie level-one institution that presents valuable opportunities for students to stay in state and perform well. Additionally, increased support through CAPS, CEP, the ethnic centers and faculty and staff training also seem to have played a role in UNM’s “perfect storm.”

An insight that emerged from the interviews was the lack of knowledge among faculty and staff regarding the help that was available to students. There have been concerted efforts through the Provost’s Office and CAPS to inform faculty and staff about resources available for students and there are faculty who welcome guests to talk to
their classes about services offered. However, there is a concern that some faculty and staff are unaware of the comprehensive nature of UNM’s support system and thus are not adequately informed to help students find the appropriate resources.

One common factor among interviewees was a commitment to student success that has been greatly enhanced at UNM. While a reinvigoration of CAPS is one part of that change, there was an incredible cultural shift at UNM that induced several positive changes in first-year retention. In many of the interviews, they cited their own experience with attending college as heavily impacting their choice to work in higher education and passion for helping students. John is an example; while he holds an MBA and could have a more financially beneficial position in the private sector, he is engaged in helping students find success at UNM. John’s position has allowed him to build relationships with students in New Mexico high schools, work with them through orientation, and remain involved in their experiences at UNM. Margaret (2018) stated that what she took from her personal undergraduate experience could be summarized as, “You can do anything…and you have a responsibility to give back.” She indicated that schools should all endeavor to instill a critical thought process in students. This way of thinking about the college experience is an important key to understanding what the undergraduate experience should be all about, discovering what unique qualities students have to share and finding a way to communicate them effectively. Particularly in relation to a very diverse campus like UNM, students’ understanding that part of their college experience is to learn how to positively influence society and believe their influence is important is part of the overall success of an institution.
Campus safety was mentioned as something that may impact student retention, but there was little evidence to suggest that students choose to leave UNM due to safety concerns. The researcher did observe several safety related steps UNM has taken and a noticeable campus security presence while on the campus.

The narrative of change in the last decade at UNM is apparent from the interviews. The most significant changes that arose among all groups were the reduction in the number of credits that were required for virtually every major from 128 to 120 as well as the new financial incentive of taking 15 to 18 credit hours per term, which seems to have made a positive impact. Several interviews confirmed that a revolutionary change in culture at UNM had started with the Gardner Institute’s participation. This change symbolized much more. All interviewees emphasized the change to a student-first mentality on the campus. The efforts were initiated by the HLC report on accreditation, but the change that occurred has campus-wide buy-in and a belief that something truly remarkable happened during the previous decade. The story represents more than the culmination of another HLC quality initiative; it is an incredible cultural shift that positively impacted student success that occurred at UNM during this time.
Chapter Five

Discussion of Results

The University of New Mexico changed its method of addressing student success over the last 10 years. The instigating force was an HLC visit and subsequent monitoring report, but UNM decided not to wait another 10 years to improve. From approximately 2012 to 2018, the university was heavily impacted by the Gardner Institute, and those efforts form the backbone of the Quality Initiative. To the credit of UNM, the efforts are institutionalized in many ways. Margaret stated that UNM changed from a perspective that always referenced the quality of incoming students when student success was questioned to a more relevant consideration of, “What are we doing to serve our students?” By all accounts, the culture of the institution shifted during those years, and a group of committed people worked hard to make improvements in retention and graduation rates. However, there are concerns moving forward with the continued development of new student success initiatives in view of staff changes and fear of budget cuts resulting from lower enrollment.

Discussion of Relevant Literature

This UNM study supports existing literature and makes a contribution to the existing literature, particularly relating to a large public Hispanic-serving institution (HSI). In the researcher’s experience, campuses and conferences have raised the question of applicability of the existing models of student success to HSIs. Additionally, at UNM leaders influenced the culture by providing the necessary environment that allowed the change to happen.
**Tinto:** Much of Tinto’s work was discussed in at least one interview as having impacted UNM’s decision-making process prior to the Gardner Institute project. In *Completing College: Rethinking Institutional Action*, Tinto states:

Students are more likely to succeed in settings that establish clear and high expectations for their success, provide academic and social support, frequently assess and provide feedback about their performance, and actively involve them with others on campus, especially in the classroom. (Tinto, 2012, p. 8)

The finding of Metzner’s (1989) study of 1,000 freshmen and the beneficial impact of positive advising experiences on retention reflects similarities to the UNM case. The shift in advising took place to improve the student experience at UNM. David, who started at UNM in 2012 and was advised by the University College Advising Center prior to this change, clearly encountered the issue at the time. He had to meet with any available advisor in the center and thus had a new experience with a different advisor each time. By the time he entered his chosen course of study, he had taken a year of core courses only to discover in his second year that he did not want to major in architecture. After changing his major, he had to wait another full term to start his athletic training major.

The University of New Mexico has worked to eliminate remedial courses from its offerings, which is in line with the advice of Butrymowicz (2017). It has accomplished this aim via the math mall concept and Stretch English. Additionally, the study was consistent with Sunleaf’s (2013) conclusion that personal relationships and community have a positive impact on retention. The ethnic centers and the CEP were noted as examples in this regard. Conversely, several respondents felt that students who were not
attached to one of these organizations had a lower likelihood of retention. The findings of this study also concur with Fulcomer’s (2003) conclusions that there is value in using student information to impact retention, since student retention is related to academic achievement and that student satisfaction is an important factor in student retention.

Being a Hispanic Serving Institution, Barbara considered researchers such as Laura Rendon and Vasti Torres, who have focused on students of color and applied Tinto’s model to consider their unique needs. Laura Rendon has written extensively primarily on her 1994 theory of validation that states, “Institutional agents, not students, are expected to take the first step to not only promote involvement but to affirm students as knowers and valuable members of the college learning community” (Rendon, 1994). Torres (2003) reiterates Barbara’s concern: “Few identity development theories have considered the ethnic identity development under the broad category of Latino.” This case is of particular importance at UNM, as it is a HSI with a high indigenous population.

Comments from respondents that students from diverse backgrounds need to understand that their unique perspective matters is not explicit in Tinto (2012), but came out in various interviews as an important part of the sense of belonging on campus. Students from various backgrounds come to institutions of higher education not only to learn, but to share their unique perspective.

**Gardner’s Foundations of Excellence:** All interviews highlighted the Gardner Initiative, under the auspices of the FYSC at UNM, as the primary driver of progress. Barbara mentioned that significant changes have occurred in the last decade, and while the project initially faced skepticism, the “perfect storm” ultimately emerged, and UNM
was able to make significant changes – not just through the Gardner Institute initiative but also through the leadership and vision of the institution during those years.

When considering the phenomenon at UNM, Barbara noted that she did not know if the Gardner initiative alone was the key to the transformation, admitting, “I don’t know if it was the Gardner Institute or a perfect storm of different variables.” The FYSC was gradually phased out. When asked if the Gardner initiative was positive for the university, Barbara asserted:

*It was, and I would have to say that I was pretty skeptical that it would create any change having gone through several iterations, but I think the difference was in the leadership. In the committee I was on the chair really moved a lot of things forward and implemented them, so it wasn’t just kind of another drill that we are going to go through.*

In each of the Foundations of Excellence dimensions, UNM expended efforts. This observation supports Malaski’s (2014) finding that all nine of the foundations were at least somewhat effective. In the case of UNM, the Gardner Institute initiative did seem to have a significant impact on retention and graduation rates. The strategies that were implemented at UNM despite New Mexico being a largely rural and poor state did have a positive influence.

At least in the UNM example, the Foundations of Excellence dimensions did prove effective in impacting student retention and graduation. As UNM is a very diverse institution, this would seem to support the idea that the Foundations of Excellence dimensions have an impact on student success of students from diverse backgrounds.
Complete College America: No respondents, documents, or observations mentioned the Complete College America framework; however, as previously noted, there is significant overlap between Complete College America and Gardner’s foundations. Thus, UNM did implement the first, second, and fifth components, albeit not intentionally, as CCA participation in this project was from the state level. The three components were as follows:

1. A strong start (a focus on the college first year)
2. Fifteen to finish (students averaging 15 credit-bearing courses per term to stay on track to graduation)
3. Redesigning systems (changing systems that hinder or block students from finding success in college)

UNM implemented the math mall and Stretch English to eliminate remedial coursework, in line with Rogers’ (2015) study of re-enrollment after taking such courses multiple times. Margaret noted a positive change in the math curriculum:

Well, we saw then by moving from this three-credit to two-credit, by students on that [track] follow-on to their statistics and actually the core math that they needed to get to, is actually a significant increase. When it was a three-credit course, [it resulted in] about [a] 32 percent passage rate, by moving to the by-credit model [each credit earned individually], a 72- the last time I was working with it, it was all the way up to about 85, 87 percent passage rate.

Many of UNM’s initiatives through the Foundations of Excellence meet the criteria to support the Complete College American framework.
The “perfect storm” of events was possible because leadership provided the framework and resources and the faculty and staff at UNM used those resources to implement effective change. The situation at UNM was unique, but the response was an example of proactive leadership setting the stage for success through programming and resource allocation. Then the leadership stepped aside, and in some cases departed altogether, allowing the change agents at UNM (many of whom participated in this study) to implement change. This created a significant amount of buy-in on campus and continues to resonate after many of the leaders who initiated the change have departed.

**Recommendations for UNM**

The research at UNM provides an overview of the phenomenon that has taken place there. The faculty and staff of the university were incredibly helpful and seemed genuinely interested in capturing the entire story for the future. It is the researcher’s hope that this work has done them justice. The following recommendations were derived from the study, interactions with faculty and staff throughout campus, and one triangulation interview with an alumnus.

**Tell the story:** The researcher did not find the full story of UNM’s phenomenal change captured in one document or on the website prior to conducting this study. I was more impressed with each interview I conducted, as a Herculean effort had taken place, yet I would not have learned about it if not for a small article in the *Albuquerque Journal* about CAPS. Finding a way to maintain a living history of the university in an ongoing and accessible fashion is important for institutional memory and the future. While many of these documents may have entered the UNM archives, the real story of the transformation was only possible to explore through interviews and this resulting study.
As one example, the rationale for bringing Dr. Kuh to UNM has been lost. While he is a well renowned author and practitioner, the decision to bring him in specifically has been lost. It seems possible to have a YouTube series that talks about what UNM is doing and promote the changes. I left several of the interviews feeling excited about the progress at UNM, but to share UNM’s story, it is necessary to spread such positive feeling about the efforts. Sharing the story may build collaboration and support in entities across the state, including the legislature and governor’s office.

**Continue to improve assessment:** Assessment of student success programs can be challenging and time consuming and every interview noted it as an area that can always be improved. The researcher was impressed that every area and every interview involved some form of formal assessment program. Some staff at UNM believed that their overall improvement outstrips that of Georgia State University and may well lead the nation. This positive news emerged repeatedly in interviews even as, it was often accompanied by knowledge and trepidation that some of the gains could be lost with pending budget cuts from Santa Fe. The fear looms, particularly in view of the trend of reduced state support for UNM and increasing reliance on tuition and fees.

Improving assessments of student success programs is imperative to more effectively assess their benefit and allocate resources to support the most students. Several interviewees believed that students who are connected to CEP or one of the ethnic centers are far more likely to stay in college because of their connection with a community. Such connections may provide a framework for progress as well as other opportunities for students to engage in the UNM community.
**Identify struggling students as quickly as possible:** Several respondents explained that students leave when they do not meet expectations and do not know where to seek help. These students are less likely to be engaged in a community where they would establish a relationship with a UNM faculty or staff member; thus, it may well be that their only professional contact at UNM is with the teaching faculty. A pilot in learning strategies has embedded such strategies into an entry-level biology course, imparting awareness of available resources, but students must have the information to know that they can opt in. Advisors also occasionally send students to CAPS for help with learning strategies, but this resource is under-utilized.

The researcher suggests that the enrollment management system which helps identify students at the moment of crisis be made universal. It seems possible with this system to find a way to identify students when they first fail a test or are on track for a ‘D’ or ‘F’ in classes at mid-term and intervene at the point of the incident. Further, students who are on academic probation must seek out help. This is a good step, but that should be required earlier in the term to increase effectiveness.

**Clear more roadblocks:** It is necessary to teach students who do not find success in one college to successfully “parachute” into another college. The ability of students to determine a major early in their college career was almost universally appreciated; however, when students do choose to change, there are concerns that they do not know how and must receive clear instructions. Furthermore, some programs have single-entry terms; in the case of David, this aspect caused his undergraduate time at UNM to extend to six years rather than five and a half. Nevertheless, with already implemented changes
in starting students in their chosen field of study, it is likely that David could avoid the extra year if he were to start at UNM today.

**Other groups:** The focus of the work has been the first year, but two respondents mentioned that the next step for the program is likely consideration of sophomores and transfer students. Although CAPS supports students all the way through, there are considerable resources in the first year. If there is a “next step” for UNM, it seems plausible that it is the first to second year retention rate. While the transfer students are not counted in four, five and six-year retention rate reports, their success is also an important factor at UNM and warrants consideration.

**Recommendations for Higher Education Practitioners**

The results of this study, while focused on UNM and New Mexico, provide a rich narrative of the experience at UNM. It would behoove practitioners to consider this study and the experience at UNM when considering implementing change related to student success. While the “perfect storm” at UNM is hard to duplicate, there are areas where practitioners from various campuses may find the experience at UNM informative to practice. Particularly the reduction and standardization of credit hours across majors, the math mall concept and stretch English programs are applicable in many settings.

Reducing and standardizing the number of credit hours to 120 had an immediate and real impact on graduation rates, particularly on time graduation rates, at UNM. The math mall, where students can take foundational courses at their own pace allows students who need additional help to gain that assistance while not impeding their progress toward degree by placing them into semester after semester of foundational math courses before they can complete the required math course. Finally, stretch English
provides students who are not college ready in English to gain the foundational skills they need while gaining credit that counts toward graduation and prepares them for the English Composition courses that are required for graduation.

The narrative at UNM that includes leadership and change agents at UNM are difficult to replicate, but campuses can use this model to work toward real and lasting change. UNM's leadership was able to provide the resources, framework and environment that allowed the faculty and staff at UNM to implement real and lasting change. Maintaining effective personnel through support and appropriate compensation is also challenging in tough budget years. However, if positive change is happening at an institution, it is important for leadership at the institution and the appropriate governing board to strive to maintain that momentum.

**Suggestions for Future Research**

This study tells the story of UNM’s “Perfect Storm.” Other New Mexico colleges and universities may learn from UNM’s experience. Moreover, other colleges and universities in the state have unique ideas about the first college year that could also work well across the state. Considering these actions and learning from each other to improve methods and programs would be beneficial. Other studies that tell the stories of different institutions are suggested so that we can learn from each.

While this study has not focused on the student experience at UNM, it was interesting to hear about the student perspective from David, “I think that a lot of it was on me just not recognizing earlier that I didn't want to do architecture and I just kinda stuck things out when I should have recognized it earlier.” In fact, I believe that the student perspective of UNM’s efforts in conjunction with the results of this study would
provide a richer narrative than would be possible in the confines of this dissertation. A study of the student experience at UNM is recommended to better understand the impact efforts have had on the student body.

John mentioned that students who are perceived to be at risk receive more support. One area of growth could be to expand this second layer (that is support received through CEP or the ethnic centers) to all first year students rather than only those who opt in or are selected. How would forcing students to be involved in activities that currently are voluntary impact student retention, positively or negatively?

One especially exciting discovery at UNM is the work that is underway by the Indigenous Library Program to identify appropriate student success strategies for indigenous populations. Additional studies on Indigenous student success and ways in which institutions can empower students to have a voice in support services are recommended. Studies of this nature could provide a foundation for appropriate student success outreach to indigenous populations across the US.

In an effort to improve outcomes at UNM, Barbara indicated that President Frank’s contract had built-in incentives to improve key metrics, which was a key part of instigating the “perfect storm.” The Albuquerque Journal (Quintana, 2017) confirms that Frank earned a bonus in 2013 due to an increase in student retention. The timeline of this bonus suggests that the timing of efforts at UNM may have been influenced through the bonus structure. Researching the efficacy of bonuses as an impetus for change in higher education institutions could add to the body of knowledge.
Conclusion

The shared experience of UNM faculty, staff and students over the last decade provides a gold standard for implementing effective change on a college campus. The impetus for change is an HLC report, which resulted in an initiative that changed the culture of the campus. The “perfect storm” at UNM was a unique event. While institutions will not replicate the experience precisely, the overarching belief that change on a college campus is possible and can positively impact student success is a lesson for institutions. In the end the “perfect storm” occurred because the administration, faculty and staff at UNM determined that change was needed and worked collectively to positively impact the student experience on campus.

The work at UNM since the last HLC visit, and particularly in conjunction with the Gardner Institute, appears to have driven the significant increase in UNM’s first-to-second year retention and subsequent graduation rates. In a state that is, by all accounts, close to last place in the quality of education, these outcomes are impressive. This study can hopefully provide insight into student success not only at UNM but also at schools throughout New Mexico.

Fear of the future is always challenging and there are significant changes in store at UNM, with a new provost and several other open positions. Every department mentioned concerns about money and leadership, which could easily be attributed to natural causes. Several interviewees mentioned that they did not fear regression but recognized potential to slow or stop progress in first-year success rates. Ultimately, by continuing these efforts in spite of the obstacles, UNM can become the best version of itself.
The success of New Mexico’s future growth and economic vitality closely depends on the success of higher education institutions in producing the necessary citizenry. In reality, this motivation has always been the reason for the existence of institutions such as UNM. As the state strives to improve higher education completion rates, the work of UNM offers an example of the potential achievements when an institution embraces an impetus of change and works together to improve student success. Perhaps the state needs more “perfect storms” in higher education to improve the outcomes for future first year students.
Appendix A

Participant Informed Consent Form

IRB Number # 18814

Study Title: Responding to the College Completion Crisis in New Mexico:  
A Case Study of the University of New Mexico

Invitation

Dear [Name],

My name is Kalith Smith. I am a doctoral student in the Department of Educational Administration at UNL. I am currently studying the first-year program at the University of New Mexico to better understand the program and its impact on the institution, particularly in relation to first-year success, and its implications for UNM’s improvement in completion rates. This research is for a dissertation proposal in EDAD 988. I would appreciate your participation in the study given your crucial role in first-year success at UNM.

I have included a list of questions that I will use to conduct the interviews. There may be additional follow-up questions based on your responses, but this list generally
provides a sense of the study’s design. Thank you in advance for making time in your busy schedule to better understand the role you play in student success at UNM.

**Purpose of the Research:**

This study is designed to better understand the first-year experience at UNM and its impact on student success.

**Procedures:**

Participation in the study will consist of engagement in interviews and the provision of any pertinent documents to understand the first-year experience at UNM. The responses will remain anonymous.

**Inclusion/Exclusion:**

Participants in the study must be between the ages of 18 and 99.

**Benefits:**

The study is designed to provide an understanding of the success at UNM in relation to current research. The potential exists to not only provide a blueprint for success at other institutions but highlight areas of improvement based on current research in the field.

**Risks and/or Discomforts:**

There are no known risks or discomforts.

**Confidentiality:**
Information that is obtained during the study will remain confidential. The research will be stored in a locked drawer in the researcher’s office and in a password-protected Dropbox account. The information will be retained for three years and may be published in journals or presented at conferences.

**Compensation:**

There is no compensation for participation in this study.

**Opportunity to Ask Questions:**

Researcher contact information is listed at the end of this form. Feel free to contact the investigator before or after your interview.

**Freedom to Withdraw:**

You are free to withdraw from this study at any time.

**Consent, Right to Receive a Copy:**

By verbally agreeing to participate at the time of the interview, you are voluntarily deciding to participate in the study. Your agreement indicates that you have read and understand the information about the study presented here. You will be provided with a copy of this consent for your records.

**Contact information of investigators**

Kalith Smith, Principal Investigator
Cell: 575-637-4068

Brent Cejda, Ph.D., Secondary Investigator
Office: 402-472-0989
Appendix B

Interview Questions

Name ______________________________ Date ____________________________

Title____________________________________________________________________

Thank you for choosing to participate in this study. During the interview today, I will be recording our conversation, which I will later transcribe. In addition, I will be taking notes and will present them for your review. I will transcribe the conversation verbatim so that I do not paraphrase and risk interpretations. The purpose of the study is to understand UNM’s first-year programs and their impact on first-year student success.

In consideration of UNM’s programs, there has been documented improvement. Understanding the reason for the improvement and its impact on first-year student success is the aim of the following questions.

Demographic Questions:

1. Which gender do you affiliate with?
2. Which race do you affiliate with?
3. Where did you grow up?
4. How long have you worked at UNM?
5. Tell me about your role at UNM during that time.
6. What was your own experience going to college like?
7. How, if at all, do you think that your experiences have shaped your thinking about first year programs?

Questions regarding how UNM sets and reinforces student expectations:

1. What do students expect in their first year at UNM?
2. Do you feel that students are generally realistic in their expectations?
3. How does UNM’s first-year program work to help students set realistic expectations?
4. When student expectations are not achieved, how do students react?
5. How does the first-year program at UNM help them adjust to new expectations if they are not met?
Questions regarding how UNM handles advising and whether it is effective:

6. Who does advising, and how are they trained?
7. What do students expect from advising in their first year at UNM?
8. Do you feel that students have a clear understanding of the advising process at UNM?
9. Which program is utilized to help students understand the advising process at UNM?
10. How does advising impact the student first year experience at UNM?
11. Is the advising program at UNM sufficient?
12. Are there measures that UNM could take to improve advising?

Questions regarding how UNM provides curricular and co-curricular support:

13. What do students expect from curricular and co-curricular support in their first year at UNM?
14. Do you feel that students have a clear understanding of what is available in curricular and co-curricular support?
15. How does the first year program at UNM help students understand what is available to them?
16. How do students react when curricular and co-curricular support does not meet their expectations?
17. Are there things that UNM could do to improve curricular and co-curricular support?
18. Does UNM offer a summer bridge program?
19. What students participate in the program

Questions regarding how UNM assesses student success programs:

20. How does UNM assess student success programs?
21. Who is involved?
22. What matters to each group?
23. Is this process sufficient?
24. Which additional processes/procedures would be useful to assess student programs at UNM?

Are students involved in planning this process?

If so, how are they involved?

If not, should they be?
Are there any other activities that may be contributing to the increase in freshman to sophomore retention at UNM?

In thinking about the state as a whole, in your opinion, are there reasons other than UNM’s programmatic adjustments that might help to explain UNM’s improvement in the freshman-to-sophomore retention rate?
Appendix C

Documents Reviewed

I. UNM Mission
II. UNM Vision
III. UNM History
IV. UNM Data from Provost Dashboard
V. UNM Catalog
VI. UNM Strategic Plan
VII. UNM Operations and Procedures Manual
VIII. UNM Higher Learning Commission Self-studies and Reports
# Appendix D – Observation Protocol

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Observational Data</th>
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<tr>
<td>Observations related to “How does UNM set and reinforce student expectations?”</td>
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<td>Observations related to “How does UNM handle advising and is it effective?”</td>
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<td>Observations related to “How does UNM provide curricular and co-curricular support?”</td>
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<td>Observations related to “How does UNM assess student success programs?”</td>
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## Appendix E-Coding Table

<table>
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<tr>
<th>Second-cycle Provisional Code</th>
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<tr>
<td>Support</td>
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<td>Orientation</td>
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<td>Advisor</td>
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<td>Advising/Advisement</td>
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<td>Academic</td>
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<td>Expectation</td>
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<td>CAPS</td>
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<td>Retention</td>
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<td>Accreditation/HLC/Gardner</td>
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<td>Assessment</td>
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<td>CEP/SEP/CAMP</td>
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<td>Graduation/Completion</td>
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<td>Curricular</td>
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<td>Ethnic Centers</td>
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<td>Learning Communities</td>
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<td>Bridge</td>
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</table>
Appendix F – Legislative Lottery Scholarship Program Qualifications

Description: The New Mexico Legislative Lottery Scholarship will pay a portion of tuition (up to an undergraduate degree) for students who meet the eligibility criteria listed below.

Eligibility:

- Student must be a resident of New Mexico.
- Student must have completed high school at a public or accredited private New Mexico high school, graduated from a public or accredited private New Mexico high school or received a high school equivalency credential while maintaining residency in New Mexico.
- Student must enroll at a public post-secondary educational institution in New Mexico within sixteen months of graduation or receipt of a high equivalency credential.
- Student must enroll in and earn 15 credit hours per semester at a four-year New Mexico public university.
- Student must enroll in and earn 12 credit hours per semester at a two-year New Mexico public community college.
- Student must maintain a 2.5 or greater cumulative grade point average (GPA) each semester of enrollment.
- Students with disabilities may qualify for reduced credit hour requirements and additional semesters of the scholarship.
Award: A flat award based on the type of institution the student attends (Research; Comprehensive; or Community College). NMHED will notify institutions of the award for the upcoming academic year by June 1.

Duration: The initial scholarship shall begin with the second semester of enrollment at a public postsecondary educational institution. Thereafter, the scholarship is renewed on a per-semester basis subject to maintaining eligibility. Students must remain consecutively enrolled each fall and spring semester to maintain eligibility for the scholarship. The scholarship may be renewed at a four-year institution until the award recipient has received seven (7) semesters of scholarship awards or until the student graduates with a bachelor’s degree, whichever is sooner. Students attending a community college are eligible for three (3) semesters of scholarship awards. The student should contact their public post-secondary educational institution’s financial aid advisor for eligibility verification if they have met the first semester eligibility requirements listed above.
Appendix G

1. Expectation
   a. Faculty/staff belief in student preparedness expectations
   b. Faculty/staff belief in student academic expectations
   c. Faculty/staff belief in student expectations about major selection
   d. Faculty/staff belief in student expectation of length of time to degree attainment
   e. Faculty/staff belief in student co-curricular involvement expectations
   f. Faculty/staff belief in student social expectations
   g. Expectations based on previous data
   h. Institutional expectations
   i. Parent/guardian expectations

2. Advising
   a. Initial advisory meeting for centralized advisors
   b. Degree selection
   c. Course selection
   d. Student schedule
   e. Academic map

3. Curricular and co-curricular support
   a. Tutoring
   b. Student involvement
   c. Library patronage
   d. Mentoring
e. First-year experience course

4. Assessment

   a. Assessment of student expectation
   b. Assessment of tutoring
   c. Assessment of student involvement
   d. Assessment of the first-year experience course
   e. Assessment of the first-year program.
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