ABSTRACT

CODALLO, MEGAN VIVIANA. Factors that Influence University Student Retention in Colleges of Agriculture. (Under the direction of Dr. Jacklyn Bruce).

Recruiting students into higher education institutions and specifically Colleges of Agriculture does not directly translate to an increase in degrees granted. There is insufficient work done on the retention of students in colleges of agriculture. In order to sustain the agricultural workforce we must not only invest in recruiting students to Colleges of Agriculture we must also understand why students are leaving Colleges of Agriculture prior to completing their degrees to aid in facilitating their completion process. Using Tinto’s Model of Institutional Departure, this study explores the factors that contribute to a student’s decision to drop out of a four year, higher education agricultural degree program and how they make meaning of their experiences. Guiding this research are the following questions: 1) How did experiences within the individual’s formal and informal academic and social systems lead to dropout and 2) How did interactions from external communities contribute to the student’s decision to drop out? For this phenomenological study the researcher is collecting data through in person, semi-structured interviews. The implications of this research are understanding why students chose to withdraw from colleges of agriculture and what these colleges can do, if anything, to provide more support to students to facilitate completion of degrees.
Factors that Influence University Student Retention in Colleges of Agriculture

by

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DEDICATION

This thesis is dedicated to my aunt, Melchia, my uncle, CJ, and my boyfriend, Colorado. I can never thank you all enough for all of the support you have given me through this journey. I would have never been able to write all of these words without your love, encouragement, and baking me Ghirardelli cookies. We did it. I love you.
BIOGRAPHY

Megan Viviana Codallo grew up in Homestead, FL with her mother, aunt, and grandparents. She attended North Carolina State University in Raleigh, North Carolina where she received her bachelor’s degree in agricultural science with minors in animal science and agroecology. She was involved with Alpha Zeta, enjoyed spending time with friends, and cooking. During the summers of her undergraduate degree, Megan interned for multiple research labs and her local county extension. These experiences grew her passion for agriculture and also cultivated her want to educate others about the endless opportunities within the agricultural industry. After graduating with her bachelor’s, Megan returned to NC State to pursue her Master’s degree in Agriculture and Extension Education. She plans on graduating and working at NC State to assist in advising undergraduate students.
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CHAPTER 1

Introduction

Most people hear about four-year colleges and their programs through recruiters at college fairs or campus visits. This is not done to give potential students a buffet of choices but rather a desperate attempt to keep universities afloat. “What other industry do we know that successfully recruits 25 percent new clients each year, plans for an average loss of 25 percent of those clients, and accepts this as business as usual?” (Olbrect, Romano, & Teigen, 2016, p. 1).

Between their first and second year, 25 percent of students decide not to return to their respective institutions. A student’s decision to leave, or withdraw, from an institution is known as “dropout.” The decision to dropout has negative consequences for both the student and the institution. The student loses potential earnings they would have received with a four-year degree (Tinto, 2003) and the money that they already invested in their education. The institution also loses money they invested in the student, through financial aid and time invested towards that student’s learning (Savage, Strom, Ebesu Hubbard, & Aune, 2017). Each student that leaves before degree completion costs the college or university thousands of dollars in unrealized tuition, fees, and alumni contributions (DeBeard, Spielmans, & Julka, 2004). This should act as an incentive for institutions to commit resources to increasing retention of their students.

Retention is an institution’s ability to keep a student enrolled until completion of their degree (Tinto, 1975). Retention ratings are a relatively large component of academic rankings by third parties (Olbrect et al., 2016). “Parents and students could use the retention rate as a perception of an institution’s value to students who previously attended the school” (p. 2). A low retention rate can potentially diminish a school’s reputation and deter prospective students from wanting to enroll.
It is no longer assumed that a student’s enrollment at a four-year institution results in that student completing their degree (DeBeard et al, 2004). “Retention is a complicated construct that is difficult to predict” (DeBeard et al., 2004, p. 73). Student retention is one of the most widely researched areas in higher education (Tinto, 2006) and is increasingly becoming a part of the discussion in budget meetings (Olbrect et al., 2016). Higher education cannot cheaply be fix retention with a magic wand; rather it requires various resources such as faculty and staff time, investment in student centers, and an honest, concerted effort that the institution is willing to continuously deliver. There are countless models from varying fields that seek to find the formula to remedy the problem of retention (Aljohani, 2016) all dispelling the erroneous previously held belief that a student’s withdrawal was the result of their being less motivated, less able, or less willing (Tinto, 2006).

The issue of retention in colleges of agriculture, however, has not been as widely researched. The agricultural industry has about 20,000 jobs for those holding a higher education degree that go unclaimed each year (USDA, n.d.). Much of the research focuses, not on retention at all, but on recruitment, recommending programs focus their recruitment efforts on students with prior agricultural experience (Dyer, Breja, & Wittler, 2002; Garton, Dyer, & King, 2001; Wildman & Torres, 2001). This recommendation is counterproductive considering that most students who are currently enrolled and show an interest in becoming involved with the agricultural industry, are increasingly urban, female, and minority students (Shrestha, Suvedi, & Foster, 2011). These students are most commonly found in urban areas where there are little or no farms and without access to agricultural related programs such as Future Farmers of America (FFA) and 4-H.
The changing demographic of enrollment in Colleges of Agriculture is reflective of the agricultural industry as a whole, especially as society continues to shift away from production agriculture and move towards bioengineering (Dohm, 2005) and a focus on sustaining our agricultural practices through environmental preservation (USDA Press Release, 2015). Clinging to the idea that only “traditional” students are able to complete agriculture related degrees not only limits the number of potential students that a college of agriculture will appeal to in an already competitive market, but it also continues to limit those who are able to enter and improve our agricultural industry.

Retention is a complicated construct that is difficult to predict (DeBeard et al., 2004). There is not one predictor or variable that can determine whether a student will decide to complete their degree.

As the environment for higher education has changed from one of plenty to one of diminishing resources, there has also been a heightened focus on the part of institutions and states alike on increasing the rate at which students persist and graduate from both two and four year colleges and universities. (Tinto, 2006, p. 2)

Influences can vary from financial support, social support systems, academic performance, and institutional support. Using Tinto’s (2006) Model of Institutional Departure, this study explores the factors that contribute to a student’s decision to drop out of a four year, higher education agricultural degree program and how they make meaning of their experiences.

**Conceptual Framework**

As society and technology continue to evolve, it is becoming more of a trend for individuals to pursue higher education after graduating high school to earn a higher level of income and to be eligible for their desired careers (Murray, 2009). Although the benefits of higher education are strong factors in influencing enrollment there is a growing problem of retention.
Higher Education

Before asking the question, “Why do students dropout?” it is important to ask why students choose to pursue higher education in the first place. Individuals seek higher education to learn more about a specific field, obtain a degree required for an intended career, and/or to improve their economic status (Murray, 2009). “It is well documented that completing a college degree, especially a four-year degree, is an important certificate of occupational entry without which access to prestigious positions in society becomes measurably more difficult” (Tinto, 1993, p. 1). Individuals who have completed a four-year degree generally earn 86 percent more than those with only a high school diploma (Bureau of Labor Statistics, 2018). According to the Bureau of Labor Statistics (2018) those with a four-year degree accrue median weekly earnings of $1,401 while those with some college but no degree earn $774 weekly and those with only a high school diploma earn $712. Not only do individuals with a four-year degree earn more than their degree lacking counterparts, they are also less likely to be unemployed (Tinto, 2003). The unemployment rate is 2.5 percent for those with a four-year degree, 4 percent for those with some college but no degree, and 4.6 percent for those with only a high school education (Bureau of Labor Statistics, 2018).

Possessing a four-year degree not only elevates a person’s individual possibilities for success, including higher income, but also increases the likelihood that they will positively contribute to their society (Murray, 2009). Murray (2009) listed multiple social benefits to an individual receiving a higher education degree including: volunteering and contributing to charitable organizations, instilling in their children a deeper appreciation for education, actively reading with their children, and decreasing the chances of a person committing crimes. Education level inversely correlates with imprisonment. Studies have attributed this to the fact
that those with a higher education also have a higher income and so are less incentivized to commit petty crimes.

For all the reasons listed above, and many more that likely cannot be quantified, many students choose to pursue higher education. In the fall semester of 2015, there were 17 million students enrolled at degree-granting post-secondary institutions. Of the 17 million students enrolled, 10.5 million, or 62 percent, were enrolled at a four-year degree-granting institution. Further, 8.1 million of these students attended their four-year institution full time (NCES, 2017a). With a clientele base of 17 million students, higher education is a big business. With enrollment numbers increasing so much those in higher education have had a lesser focus on the number of students and a heightened focus on “the quality of the experience and a college’s ability to retain and graduate” the students they have (Olbrecht et al., 2016, p. 2).

**Retention in Higher Education**

Although there are many noted benefits to obtaining a four-year degree, student retention, or dropout, remains a concern. Retention, in the context of four-year institutions, reflects an institution’s ability to retain a student from admission through graduation (Demetriou & Schmitz-Sciborski, 2011). A student is not retained when they withdraw from the institution, this withdrawal can be attributed to transferring to another institution, being dismissed, or voluntarily withdrawing and no longer pursuing a degree (2011). According to the most recent National Center for Educational Statistics (2017c) only 59 percent of students who started at a degree-granting four-year institution completed the degree within 150 percent of normal time, or six years. Retention of students is particularly difficult between the first and second year of enrollment. DeBerard and associates (2012) reported that the attrition rate of first-year students is 20-30 percent, which is higher than any other academic year.
Dropouts can negatively affect both the student and the institution. The student loses potential earnings from having a degree, the money they have put towards their education, and credits if they choose to move to another institution (Savage et al., 2017). Institutions lose the money given as financial aid, the time they invested in the student’s education, the potential tuition they would have received from the student, time of faculty and staff, while cultivating a negative public perception of the quality of the university.

Student retention in higher education has been a growing area of study in the last 40 years. Although the topic of student retention has received this attention, improvements remain necessary. “Too few institutions are willing to commit needed resources and address the deeper structural issues that ultimately shape student persistence” (Tinto, 2006, p. 9). Garton and associates (2001) found that the learning style and ACT score of a student can be an accurate predictor of student retention. However, a standardized test score cannot account for a student’s experience once they enter their institution. Kirby (2015) stated that first-year students who feel isolated or socially alienated from the college experience will most often have negative encounters that influence their decision to persist and may result in withdrawal from the institution. Most of the major models of student retention report that the factors that are most influential in a student’s decision to persist in their program is the quality of their institutional experiences and the students’ level of integration into the academic and social system of their institution (Aljohani, 2016, Tinto, 1975, 1993).

Students and institutions are not the only ones who feel adverse effects from decreased retention. Growing industries, such as agriculture, who are anticipating new graduates to fill open positions also suffer (USDA Press Release, 2015). As retention continues to decrease so does the availability of educated professionals (McCallister, Lee, & Mason, 2005).
Employment Gap in Agriculture Industry

The world population is estimated to surpass 9 billion by the year 2050 (Sayers, 2011). As the world population continues to increase, there is a demand to produce more food on less land (2011). In order to do this, the population must increasingly rely on scientific innovations that increase the yield and efficiency of crop and animal production. According to the USDA (n.d.) there will be a high demand for “plant scientists, food scientists, sustainable biomaterials specialists, water resources scientists and engineers, precision agriculture specialists, and farm-animal veterinarians” (p. 1). The U.S. Department of labor expects that employment opportunities in food, agriculture, renewable natural resources, and environment occupations will increase more than seven percent between 2016 and 2026 for those with higher education degrees (U.S. Department of Labor, 2018). Currently, there are over 57,900 job openings every year in food, agriculture, renewable natural resources, and environmental fields in the U.S every year (USDA Press Release, 2015). However, only 35,400 graduates join the industry each year, leaving a gap of about 23,000 unoccupied jobs annually (USDA Press Release, 2015).

There are a few contributing factors for the 23,000 positions left open. Many baby boomers currently hold leadership positions in agriculture but are quickly approaching retirement age leaving employers looking to new graduates to take over these roles (Schwark, 2014). The rapid growth in the agriculture industry in response to serving a growing population has resulted in a diversification in jobs that move away from production agriculture and towards renewable energy, microbiology, and communications. This shift requires an increase in the need for technology to improve productivity and those who can develop and operate this technology. In an effort to encourage graduates to fill these positions many offer competitive salaries, potential for upward mobility, and benefits packages. The first step to graduating students with
agricultural related degrees to fulfill the jobs discussed is to recruit and enroll students into agricultural programs.

**Agriculture Related Degrees**

Aside from being able to enter an open job market with an agricultural related degree, there are many reasons why an individual would wish to pursue one. An agricultural related degree can be used to enhance knowledge for those that are looking to improve on their existing businesses or have hopes to take over the family farm. A degree in agriculture means that the individual has completed coursework related to one or many of the fields within the agricultural industry (USDA Press Release, 2015). This can include ornamental plants, food crops, companion animals, animals used for food, crops used for materials such as cotton and soybeans, soil chemistry, renewable energy, environmental and natural resources, and fields that help to communicate about and on behalf of agriculture including Cooperative Extension and agricultural education (2015).

Having an agricultural degree is also beneficial for production farming. “Education is critical to becoming a 21st-century farmer and may be the difference between success and failure” (Dohm, 2005, p. 21). According to the USDA Economic Research Service (2017), 23.5 percent of established farmers and 34.3 percent of beginning farmers have at least a four-year or more advanced degree. A farm household’s income has a positive correlation with education levels (USDA Economic Research Service, 2002). Farm households whose head operator has completed an undergraduate degree can earn 2.6 times more than those who have head operators with a high school diploma.
History of Recruitment and Retention in Colleges of Agriculture

Enrollment in public universities has increased by 23 percent in the last decade (Smith-Hollins, Elbert, Baggett, & Wallace, 2015). However, colleges of agriculture are facing unstable enrollment as a result of the farm crisis that occurred in the late 1980s (Shrestha et al., 2011). The farm crisis refers to the rapid decline of individuals involved with production agriculture following an economic downturn that harshly impacted farmers in the Midwest region of the United States (2011). The economic hardships this placed on families led to less individuals seeking to pursue a career in agriculture (2011). The decrease in enrollment in colleges of agriculture and agronomy programs threaten their viability and in turn threaten the availability of educated professionals (McCallister et al., 2005). In an effort to select “quality” students, most universities use a combination of high school grade point average (GPA), high school class rank, and ACT scores as admission criteria (Garton et al., 2001). Institutions believe these predictors indicate a student’s ability to persist through their first year of enrollment.

Wildman and Torres (2001) examined literature and found that the most influential factors in selecting an agricultural major are prior exposure to agriculture, having family and friends involved in agriculture, activities held by colleges of agriculture, professionals in the agricultural industry, and perceived job opportunities. Some studies sought to confirm these results through survey questionnaires sent to currently enrolled students at various Colleges of Agriculture (Dyer et al., 2002; Shrestha et al., 2011; Smith-Hollins et al., 2015; Wildman & Torres, 2001). The results of these studies showed that students were more likely to choose an agriculture related program if they were aware of the job opportunities but not necessarily if they had prior experience. Following the dramatic decrease in student enrollment, as a result of the farm crisis of the late 1980s, colleges of agriculture had to modernize their curricula as suggested
by the National Research Council, in order to attract a broader range of students (Dyer et al., 2002). The shift in the demand of the workforce calls for colleges of agriculture to recruit a “new type of student” who unlike “traditional” students come from culturally diverse backgrounds, may not have grown up on a farm, and may have limited agricultural experiences (Smith-Hollins et al., 2015, p. 307).

There is a fear that recruiting non-traditional students will jeopardize the “long-term future of the ag-industry” creating a “brain-drain” (Dyer et al., 2002, p. 4). In following the recommendations offered by the studies above, focusing on recruiting students with prior agriculture experience, colleges of agriculture would greatly limit the number of potential students who would enroll in their programs. Compounding the conundrum of who to recruit into colleges of agriculture is the need to retain students who are currently enrolled. Cole and Fanno (1999) found that students who chose to leave a college of agriculture prior to completing their four-year degree did so due to a change in their career goals. Some of the participants chose to withdraw from both the college and the university. Those students who left both the college and the university prior to completing their degree reported they did so due to a lack of financial resources.

Focusing on recruiting students who are considered “traditional” and deemed more likely to succeed rather than working to retain students who are already enrolled and shown an interest in working in the agricultural industry is not only counterproductive, but also harmful to the vitality of colleges of agriculture. This study will focus on the context of North Carolina State University’s College of Agriculture and Life Sciences to explore how what factors influenced students to seriously consider dropping out.
Contextual Framework

Land-Grant Universities

Agriculture related degrees are most commonly awarded from land-grant institutions (APLU, n.d.). Land-grant institutions were first established by the 1862 Morrill Act in order to “teach agriculture and mechanical arts to ‘common’ people” (APLU, n.d.). In 1862, Justin Morrill sponsored legislation that would endow 30,000 acres of federal land to states. The states would then sell this land and use the proceeds to establish public institutions that fulfilled the act’s provisions. These land-grant institutions were to be dedicated to “teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life” (Fields, Hoiberg, & Othman, 2003). In 1890, the second Morrill Act added additional endowments to those institutions that did not base admissions on race discrimination (APLU, n.d.). This led to the creation of 17 colleges and universities today known as the “1890 land-grants.” Then in 1994, the Elementary and Secondary Reauthorization Act of 1994 extended land-grant status to 29 Native American Tribal Colleges (Fields et al., 2003). Today there is at least one land-grant institution in every state and U.S. territory including the District of Columbia, equaling 176 institutions (APLU, n.d.).

Colleges of agriculture at land-grant institutions make up less than one percent of the total higher education enrollment in the United States (National Research Council, 1995). Although making up a small portion of total higher education enrollment, these institutions are essential to their state’s agricultural industries. The Hatch Act of 1887 established agricultural research experiment stations to connect with a land-grant institution. Today the USDA National Institute of Food and Agriculture (n.d.) stated that these universities may conduct research on
“problems of local, state, regional, or national concern” and can look into the variety of fields within the agricultural industry including “soil and water conservation and use; plant and animal production, protection, and health; processing, distribution, safety, marketing, and utilization of food and agricultural products; forestry, including range management and range products; multiple use of forest rangelands, and urban forestry; aquaculture; home economics and family life; human nutrition; rural and community development; sustainable agriculture; molecular biology; and biotechnology” (para. 8). Institutions are conducting a wide range of research reflecting the growing agricultural industry and a clear demand for higher education in these areas, which can be best provided from colleges of agriculture.

**Colleges of Agriculture**

In 2016, 24,202 agriculture degrees were awarded by four-year public institutions (DataUSA, 2016). Colleges of agriculture provide curriculum that aids in training new leaders for the agricultural industry. Most research done on college of agriculture retention suggests that colleges should recruit traditional students in order to increase enrollment and subsequently increase retention (Dyer, Breja, Wittler, 2002; Garton, Ball, Dyer, 2002; Garton, Dyer, & King, 2001). Some reported that large amounts of institutional money has been lost “due to students with higher credentials, but no agriculture experience, being admitted to a college of agriculture, then dropping out before graduation” (Dyer et al., 2002, p. 4). However, even with recruiting traditional students, which has been the method of recruitment for years, there is still a retention problem.

As the population continues to move away from production agriculture and towards living in urban/suburban areas, a smaller pool of traditional students exists. This viewpoint of only accepting students with prior agriculture experience creates a sense of those who belong and
those who do not in colleges of agriculture. Non-traditional students are less likely to choose a college of agriculture because they view the possibility of careers in agriculture “only for those with agriculture backgrounds, or for those who work outdoors, or who had on-the-job training” (Fraze et al., 2011, p. 79). It is vital that we do not discount students’ potential to succeed in agriculture programs because continuing this sets them up at a disadvantage with curriculum that assumes they have prior knowledge of the industry, weeding out those who are not able to supplement this base knowledge. Therefore, this study will specifically look at the retention and dropout of the College of Agriculture and Life Sciences at North Carolina State University, an 1862 land-grant institution.

**North Carolina State University College of Agriculture & Life Sciences**

North Carolina State University (NC State) has been offering agriculture related degrees since its creation on March 7, 1887. The College of Agriculture and Life Sciences (CALS) offers 19 undergraduate majors (courses of study): agricultural and resource economics, agricultural education, agricultural and environmental technology, agricultural sciences, agroecology and sustainable food systems, animal science, biochemistry, biological engineering, bioprocessing science, extension education, food science, horticultural science, natural resources, nutrition science, plant and soil science, plant biology, poultry science, soil and land development, and turfgrass science (NC State University CALS, n.d.).

Enrollment in CALS has been steadily averaging 3,036 students enrolled in the two-year, four-year, and graduate degree programs over the past five years, 2013-2018. According to NC State’s Office of Institutional Research and Planning (OIRP), as of Fall 2018 CALS currently has 2,538 students pursuing a four-year degree, 2,400 of whom are full-time. For the Fall of 2018 semester, 449 first-year students were admitted into CALS. The most populated departments are
Animal Science (992 students), and Agricultural and Resource Economics (488 students). The four-year retention rate for CALS is 84.7 percent which is higher than the four-year retention rate of the university as a whole (52 percent).

In CALS the retention rate of students drops after each year of enrollment. The retention rates are 93.8% after year one, 89.7% after year two, and 84.7% after year three. In the last five years, 5,477 students have withdrawn from NC State and 897 of these students withdrew from both CALS and NC State. Determining the factors that contribute to a student’s decision to withdraw from a college of agriculture can not only benefit the student by aiding in their attainment of a degree program, but can also contribute to the reputation of a college noting their dedication to ensure student persistence.

**Problem Statement**

Recruiting students into higher education institutions and specifically colleges of agriculture does not directly translate to an increase in degrees granted. A one size fits all approach to agriculture is no longer efficient (Foreman et. al, 2018). In order to sustain the agricultural workforce, colleges of agriculture must not only invest in recruiting students to colleges of agriculture (Fraze et al., 2011), they must also invest in increasing our knowledge on this topic to understand why students are leaving colleges of agriculture prior to completing their degree and to aid in facilitating their completion process as well (Setterboro et al., 2017).

**Purpose**

As the agricultural industry continues to grow and diversify, it is in need of qualified individuals to employ. With the creation and growth of new sectors within this industry, there is also a need for people holding a related degrees. Although this is a growing job market “there remains a strain to meet the demands from industry in agricultural related fields” (Smith-Hollins
et al., 2015). Currently, in the United States, the industry demands 57,900 graduates but colleges of agriculture are only producing 35,400 graduates each year (NC State University College of Agriculture and Life Sciences, 2018).

The purpose of this study is to explore why and how students once enrolled in colleges of agriculture at land-grant institutions decided to no longer pursue their degree. Investigating the factors that cause students to terminate their enrollment with their college of agriculture program is necessary in order to help supply the agriculture industry with enough qualified employees. In doing so, the industry can continue to grow and create solutions to emerging issues as the population grows and agricultural land becomes more sparse.

The research questions guiding this research are:

1. How did experiences within the individual’s formal and informal academic and social systems lead to dropout?

2. How did interactions from external communities contribute to the student’s decision to drop out?

**Definitions**

In order to understand the context of the study, the following definitions must be recognized.

- **Land-grant university**: Institution created by the 1862 Morrill Act to teach agriculture and the mechanical arts to the common people (APLU, n.d.)
- **Agriculture**: “The science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products” (Agriculture, 2011, para. 1).
- **Dropout**: Voluntary withdrawal from an institution (Tinto, 1975)
Retention: An institution’s ability to keep a student enrolled until completion of their degree (Tinto, 1993).

Assumptions

This research assumes that the information provided by the individuals interviewed were representative of the individual. It is also assumed that personal examples, anecdotes, answers, reflections, etc. were truthfully and factually recounted to the researcher.

Limitations

This study was limited to ten individuals who withdrew from their degree program. All participants attended North Carolina State University and were solely enrolled in CALS. Due to this, some factors contributing to their experience may be unique to this group only and may not be transferable to groups outside of this population.

Chapter Summary

Retention in higher education has been studied for decades however it has not been studied separate from recruitment within colleges of agriculture. Colleges of agriculture have been historically housed within land-grant institutions in the U.S. and the main recruitment practice is to target potential students that are involved with agriculture related youth programs such as FFA and 4-H. This study explores the experiences of students that matriculated into a college of agriculture and have seriously considered withdrawing from the institution. Through this study the meanings that participants attribute to their institutional experiences will be better understood.
CHAPTER 2

Theoretical Framework and Review of Salient Literature

This chapter outlines the theoretical framework for this study and discusses salient and related literature. This study is framed by Tinto’s (1975) Model of Student Departure which explored multiple factors that contribute to a student’s decision to drop out.

Theoretical Framework

Tinto’s Model of Institutional Departure

Tinto collaborated with Cullen in 1973 to produce a theoretical model of attrition and persistence that formed the foundation of his 1975 model, specifically the academic and social integration variables (Metz, 2004). Tinto incorporated Van Gennep’s 1960 rites of passage theory as environmental variables. These rites of passage illustrated a person’s integration into a new setting or environment contingent on them denouncing their ties to past environments or communities. This concept was based on Durkheim’s 1953 work that likened student attrition to egotistical suicide, defined as one that becomes socially isolated and/or feels that they have no place in society so they cut themselves off from that society; in both situations a person fails to integrate into their community due to an intellectual or social phenomenon (Metz, 2004). Spady (1970) also based his work on Durkheim’s work on suicide which linked the process of dropout to an individual’s process of withdrawing from a social system and their decision to commit suicide, generally a result from having incongruent values with the social system or lack of support.

Modern retention research was based on Spady’s 1970 work that used a sociological theory in a longitudinal model in order to highlight multiple variables. Spady also suggested that students have specific characteristics and goals that result in their academic performance.
becoming a dominant influence that influences their behavior (Metz, 2004). Tinto (1975) used both of these ideas in his own model including value congruence in the form of academic integration and social support as social integration. As the topic of retention became a growing interest, Tinto’s 1975 model was a popular theory used in studies. “Administrators interested in the bottom line were interested in increasing the retention rate for students” (Bean & Eaton, 2001, p. 74).

Researchers, widely, have cited Tinto’s (1975) Model of Institutional Departure to explain the factors involved in a student’s intention to depart from a higher education institution, commonly referred to as dropout (Alojhani, 2016). Tinto’s model proposes various factors that can contribute to a student’s decision to persist in their academic program and make it to graduation. Two of those factors are academic and social integration (Tinto, 1993). These two factors make up the major institutional support systems that students encountered when they are enrolled within a higher education institution. In 1983, Tinto acknowledged criticisms, stating that the model needed to include additional ethnographic information as background variables and to assess the role that both academic and social integration had in student persistence. This resulted in Tinto adding five theoretical bases of understanding including psychological, societal, economic, organizational, and interaction factors to the model (Metz, 2004).

The psychological theories tend to emphasize the impact of an individuals’ abilities and their dispositions upon student departure (Tinto, 1993). Societal theories stress the importance that external factors pose in the process of persistence. Economic theories stated that an individual's decision to persist is similar to the way that individuals make economic decisions. In both cases an individual must weigh the cost and benefits of alternative ways of investing their scarce economic resources, in this case their time and money. Organizational theories tend to be
concerned with the impact that environmental factors have on student departure. These factors include institutional policy, institutional behavior, and the culture within the institution. Interaction factors observe how these theories interact with each other and external forces influence a student’s decision to drop out.

This study will utilize Tinto’s (1975) Model of Institutional Departure to explore how the factors outlined have contributed to an individual’s decision to withdraw from their degree program. This model looks at how “adjustment, difficulty, incongruence, isolation, finances, learning, and external obligations are commitments that influence departure” (Tinto 1993, p. 112). There are three goals this model aims at showcasing: (1) speaking to the longitudinal process of departure as it occurs within higher education institutions; (2) paying special attention to the longitudinal process in which individuals arrive at the decision to depart their institution before completing their degree program; and (3) emphasizing the longitudinal process of withdrawal that arise within institutions among individuals.

The variables outlined in the model include pre-entry attributes, goals and commitments of individuals upon enrollment, institutional experiences (academic and social systems), integration (within academic and social systems), goals and commitment of individuals once integrated, the ultimate outcome (graduation or withdrawal), and external community (Tinto, 1993). Pre-entry attributes consist of “family and community background, a variety of personal attributes, skills, financial resources, dispositions, and varying types of pre-college educational experiences and achievements” (p. 116). This study will focus on the institutional experiences and integration within the academic and social systems and how this influenced individuals’ decision to withdraw from their degree program.
The academic system, in the context of Tinto’s (1993) model, concerns itself almost completely with the formal education of students. The activities in this system center around the classroom and laboratories at the institution and involve various faculty and staff whose primary responsibility is to educate students. The social system, as discussed in this model, centers about the daily life and personal needs of the individuals of the institution. Activities within this system include the recurring sets of interactions among students, faculty and staff, and peers, which mostly occurs outside of the formal academic domain. Tinto’s model explains how the interactions among individuals within both the academic and social systems of the institution, and the communities that they are comprised of, may lead individuals with different characteristics to withdraw prior to completing their degree program. Tinto (1993) stated that an individual’s positive integration into these systems can increase their goals and strengthen their commitment to both their goals and the institution in which they attend. Likewise, the lesser the integration into the academic and social communities of the college, the more likely a student is to consider withdrawing from the institution.

Tinto (1993) acknowledged that the academic and social system within his model do not exist in a vacuum but are in fact nestled within an external environment that is comprised of external communities that contain their own set of values and behavioral requirements. Therefore, this external community variable outside of the model accounts for recognizing that for many students “going to college is just one of a number of commitments they have to balance over the course of their college career” (Tinto, 1993, p. 115). “Events that occur elsewhere in a student’s life may also play an important role in determining what transpires within the college” (p. 109). These external communities or factors can include work and familial or community obligations. Further, these external communities can weaken a student’s academic or social
system within an institution or even pull them away from the institutions altogether. Once the academic and social systems weaken, an individual's external demands to undermine their ability to persist opens up.

Within this study, Tinto’s (1993) model will be applied to students who are currently enrolled in a college of agriculture at a four-year land grant institution. These students have seriously considered withdrawing from the institution or have already withdrawn from the institution but are all currently continuing their degree program. Tinto (1993) stated that the experiences of individuals in each the academic and social system can have quite separate effects on their decision to depart from the institution. Considering this, this study will conduct in-person interviews with participants in order to gather and understand how they experienced these systems and the ways in which they believe these experiences influenced their consideration to withdraw and their decision to persist in their degree programs. The ways in which individuals interacted within these systems will also be investigated, following Tinto’s (1993) suggestion that when studying departure from higher education it is important to “distinguish between the varying forms of intellectual and social integration of the institution” (p. 107).

Salient Literature

In order to fully understand the context under study, the following subject areas must be covered: retention in higher education, social systems in higher education, the decision to enroll in a college of agriculture, and retention in colleges of agriculture.

Retention in Higher Education

Tinto (1973) investigated whether communities that have a local college send larger proportions of high school graduates to pursue higher education than communities that do not. Using School to College: Opportunities for Postsecondary Education (SCOPE) to gather data on
students and their senior year and postsecondary year activities, this study surveyed students in North Carolina and Illinois in 1966. Tinto found that there was not a sizeable difference in the rates of students who attended college between communities that had a college in close proximity and those who did not. Even though college proximity was not a significant determining factor in a student’s decision to attend college, Tinto suggested that there is a great need for access to information about higher education. “It may be necessary to make college education more visible to individuals if we are to induce them to continue their education beyond high school” (p. 292). Distributing information to potential students about higher education increases their knowledge of opportunities available to them and increases the likelihood that they will want to pursue higher education. Sharing information about college and programs with students and making this information more accessible to is important for increasing enrollment. This is especially true considering that, as found in this study, proximity to an institution is not a direct correlation to enrollment. Therefore having information readily available to for students in any location to access would be beneficial for institutions.

Student involvement has been a recurring factor that influences retention in multiple theories (Astin, 1999; Savage et. Al, 2017; Tinto, 1993). Student involvement is comprised of both the physical and psychological energy that a student focuses on in their academic experience. In his article, Astin (1999) explored current theories of student retention, how they compare to his model, and provided practical applications for his model of student involvement. Astin stated that a student who is highly involved not only devotes a large amount of energy to their studies, but also actively participates in student organizations, interacts with faculty and peers, and in general spends time on campus. Astin based his theory of student involvement on
Freud’s concept of cathexis which focused on people investing psychological energy in objects and persons outside of themselves.

Prior to Astin’s (1999) Theory of Student Involvement, scholars applied traditional pedagogical theories to student success. Traditional pedagogical theories, such as the subject-matter theory and the resource theory, favored highly motivated students and left behind students who were slower readers or those who did not have an intrinsic interest in course material. Another traditional pedagogical theory, the individualized theory, tried to remedy these limitations by tailoring curricular content and instructional methods to individual needs; however this is extremely expensive and difficult to implement. The theory of student involvement emphasizes the students’ active participation in the learning process and considers student time to be an institutional resource because the psychic and physical time and energy a student can dedicate are finite. In this study, Astin stated that “fit” matters in terms of a student being successful and that for students, “it is easier to become involved when one can identify with their college environment” (p. 524). Astin suggested that his model can be used to encourage educators to focus more on what a student is actually doing and provide a “unifying construct” (p. 524) that will focus the energy of institutional personnel on a common objective. Tinto (1993) also highlighted this quality of teaching. Tinto claimed that instructors putting an effort towards their students’ success in addition to teaching course material aids in persistence. This is seen in Tinto’s factor of integration in his model of student departure, creating a parallel to his idea that students must integrate into the institution environment in order to be successful.

In 2003, Tinto published a broad study that observed first time, beginning students, whom he followed from 1999-2001, using the beginning postsecondary students longitudinal survey. At the start of the study, 46 percent of students first enrolled in a two-year college, 26
percent began their academic pursuit at a four-year public institution, 15 percent enrolled in a private not for profit institution, and 10 percent enrolled in a private for profit institution. Throughout the study, 32 percent of students transferred from their initial institution to another; some transferring more than once. After the six-year study, 29 percent of students earned a bachelor's degree, 10 percent earned an associate’s degree, and 10 percent earned certificates. Fifty-eight percent of students who began at a four-year institution and 10 percent of those who began at a two-year institution earned their bachelor’s degrees by the end of the study.

Of the students from families with an income of $70,000 or greater, 65 percent earned some type of college degree within six years; 56 percent of these students earned a bachelor's degree (Tinto, 2003). Comparably only 50 percent of students who came from families who earned less than $25,000 a year earned a degree within six years and only 26 percent of the those earned bachelor’s degrees. This study suggested that students from higher income backgrounds are more likely to complete a bachelor’s degree while due to social and cultural barriers that obstruct lower income students from attaining this same achievement. Recognizing that these barriers exist for students from underrepresented backgrounds is important when examining solutions to improve retention rates. Tinto stated that student persistence is primarily an institutional event, meaning it occurs within the confines of the institution based on interactions that occur while a student is enrolled, and because of this, ensuring students have the resources and support to persist should be a primary responsibility for institutions. Implementing programs that aid in knocking down these barriers such as inability to afford their education and lack of support to prepare students for college, or minimally extending a path around them, will ensure that more students have the opportunity to persist.
The retention rate of four-year degree-seeking students between their first and second year has become increasingly important to colleges that are looking to enhance their reputation and be recognized as a good value (Olbrecht et. al., 2016). As the level of state investment in higher education decreases along with the number of high school students going to college, the tuition gained from retaining students is becoming a more regular consideration in budget conversations (2016). Olbrecht and associates quantitatively estimated the role that individual-level financial realities play in influencing students’ decisions to stay in college, retaining students into their second year and increasing the likelihood of a student persisting to earn a degree. Factors were correlated with student retention between first- and second-year students in five cohorts of first-time, full-time incoming freshmen at a public liberal arts college in New Jersey entering in the fall semesters from 2010 through 2014. They examined three variables: expected family contribution (EFC), institutional monetary support not based on need (merit-based), and unmet need. When exploring the first variable of EFC, Olbrecht and associates found that the average retention rate of students was 87.9 percent. Students with higher EFC’s were more likely to continue at the college, therefore when families make an investment at a particular school, that commitment is stronger than the desire to use that school as a stepping-stone to a different institution.

The second variable, merit-based need, led to the evaluation of the relationships between financial assistance and retention (Olbrecht et al., 2016). The authors found that increases in institutional grants, which are based on internal criteria not including need, helped to retain students. They then suggested that strategically providing more “free” money to desirable students who are in the margin of leaving and staying can aid in retention. The third variable, unmet need, showed a positive influence on a student’s likelihood to persist. Olbrecht and
associates suggested that these results showed that those who are committed to cover unmet need by finding additional funding to attend an institution, and thus become financially invested in the institution, are more likely to be retained. This study concluded that although financial aid is often seen as a recruitment tool, it has the potential to significantly impact a student’s ability to attend and complete college. Thus, it should be employed as a retention tool for institutions. In the long run, using financial aid to attract students into strengthening their commitment to an institution will encourage persistence in their degrees and as a result increase the retention rate of those institutions. Increasing aid will help to reduce the barriers faced by low income students (Tinto, 2003) as well as aid in maintaining their reputation and ultimately will attract students who do not need financial aid but are looking to invest their tuition dollars in an institution that they believe is worth that investment (Olbreth et. al, 2016).

**Social Systems in Higher Education**

Bean and Eaton (2001) stated that “participation in higher education is voluntary and is based on individual decisions to remain in or leave college” (p. 73). In their study, they outlined psychological processes that can be utilized to describe a student’s academic and social integration. Their model assumed that a student enters an institution with psychological attributes shaped by experiences, abilities, and self-efficacy assessment. Once enrolled, students interact with the institution and its representatives and conduct a series of self-efficacy assessments that construct their feelings towards the institution based on their experiences. Retention programs that Bean and Eaton found to be successful included the implementation of service-learning, learning communities, first-year orientation seminars, and mentoring programs. These programs provide non-formal social environments that can readily allow students to become socially integrated by forming out of the classroom relationships with their peers and faculty. These
experiences and relationships will then give students the sense that they are in charge of their own outcomes and allow them to develop coping skills and motivation towards their academics. Bean and Eaton’s findings support the social support system within Tinto’s (1975, 1993) model by also suggesting that having social support from peers, friends, faculty, and staff make students that much more likely to succeed because they have individuals to turn to when they feel they are struggling academically or emotionally.

In their ethnographic qualitative study, Natoli, Jackling, and Siddique (2015) investigated the relationship between pre-entry attributes, academic engagement, and social engagement, with student departure using Tinto’s (1993) model of student departure. In Tinto’s model, a student’s pre-entry attributes include their family background, skills and abilities, and their prior schooling. When exploring the aspect of academic engagement, including teaching quality, the authors suggested that “retention can be increased by staff members effectively engaging with students via high quality teaching” (Natoli et al., 2015, p. 464). They also observed social engagement describing it as genuine interaction between other students and staff. Thirty-five students responded to a survey requesting participation in the study and 10 interviews were ultimately conducted. The main themes that arose from these interviews were teaching quality, interaction with staff and peers, assessment, and administrative support which all have been categorized under academic engagement and interactions with peers and staff and clubs and societies which were categorized under social engagement. Natoli and associates found that pre-entry attributes proved to be an important influence on student departure intention; however, the impact of social and academic experiences on departure intentions was mixed. The authors suggested that current experiences and level of engagement vary substantially for individual students.
Decision to enroll in a College of Agriculture

There is a growing concern for universities, and especially colleges of agriculture, to fill open positions in the agricultural industry. Most of the research that exists on recruitment and retention of students within colleges of agriculture state that prior agricultural experiences can be a predictor of a student’s decision to enroll into an agriculture related degree program (Dyer, Breja, Wittler, 2002; Garton, Ball, Dyer, 2002; Garton, Dyer, & King, 2001). In their study, Rayfield, Murphey, Skaggs, and Shafer (2013) surveyed students in the College of Agriculture and Life Sciences (CALS) at Texas A&M to gain insight into students’ decision to enroll in majors within the college. Adapting a survey used by Williams, Burris, Fraze, Akers, and Green (2007), Rayfield et al. (2013) delivered an instrument, comprised of three sections, to incoming students. These sections included influence of external factors on the selection of their major, student characteristics and background information, and additional demographic information. The results showed that the most influential person identified in selecting an agricultural related major was a student’s parent and/or guardian.

Rayfield et. al (2013) also found that recruitment material and recruitment experiences, such as visits from representatives, were not influential in choosing to enroll in an agricultural related major; however they found the internet was the most influential recruitment tool. The authors noted that “as the population changes and as our society becomes further removed from production agriculture, perhaps it is time to revisit strategies to attract non-agriculture students to colleges of agriculture” (p. 92). Rayfield et. al stated that although parents and/or guardians remain an influential factor in a students’ decision to enroll in a college of agriculture, the percentage found is not as high as one would expect. The results for this study also found that students’ participation in “agriculture and life sciences related clubs or organizations did not
appear to influence respondents’ enrollment in a college of agriculture” (p. 91). Therefore, it is limiting for colleges of agriculture to only focus on these youth organizations to recruit for their programs. Instead, colleges should focus on making information about their programs more readily available electronically.

Much of the research on enrollment and retention in colleges of agriculture report that previous experience play a major role in students’ decision to apply to an agriculture related undergraduate program (Dyer, Breja, Wittler, 2002; Garton, Ball, Dyer, 2002; Garton, Dyer, & King, 2001). Duncan et al. (2015) used the social learning theory of career decision making to replicate these studies to specifically look at the impact 4-H and FFA involvement have on a student’s decision to attend a college of agriculture. The authors delivered a purposive sample electronically to 355 students and 30 percent responded. The results showed that only 16 and 17 percent were previously involved in 4-H and FFA respectively. Even though the modal response for the entire responding population of this study showed that there was no influence of these youth programs on a student’s decision to enroll in a college of agriculture, the results section of this study “only represents the 4-H and FFA constructs of this study.” Meaning that the researchers based their recommendations based on the few participants whose decision to enroll in a college of agriculture was influence by their involvement in youth programs.

Based on their findings, Duncan et. al (2015) recommended that 4-H agents and volunteers and secondary agricultural teachers who also serve as FFA advisors increase their efforts to recruit students into their programs to “expand the pool of youth seeking undergraduate and graduate degrees in Colleges of Agriculture” (p. 327). The authors suggested that increasing recruitment to youth organizations and thereby increasing the number of individuals involved in these youth organizations will broaden the pool of potential students who are interested in
enrolling in a college of agriculture. They also support the notion that students with “positive pre-college experiences in youth programs addressing agriculture and environmental topics” (p. 327) should be given priority when developing recruitment practices because it is believed that these students are more likely to enroll. Again, this article highlighted the lens of professionals in colleges of agriculture which favors data that continues to support current recruitment practices of focusing on agriculturally related youth programs and organizations. It is important to keep in mind that maintaining this organizational recruitment pillar ignores a large population of students who may not have access to these programs for a variety of social and economic reasons.

Prior experience with FFA and 4-H, at one point, were shown to be the highest-ranking influential factor, along with parents and guardians, for students choosing to major in agriculture related programs (Foreman, Retallick, & Smalley, 2018). Foreman and associates noted that this is no longer true for students in colleges of agriculture. These researchers delivered a survey instrument to incoming full-time first-year students in the College of Agriculture and Life Sciences (CALS) at Iowa State University to describe pre-collegiate characteristics and experiences of the cohort. From the 61.2 percent response rate, data showed that only 10.9 percent of the incoming first-year class students were non-white. The data also revealed that about 33 percent of students came from family farms. Less than half of the students surveyed were involved in FFA and/or 4-H.

Foreman and associates (2018) suggested that first-year cohorts are changing and colleges of agriculture can no longer utilize a “one-size fits all” recruitment approach. Instead colleges of agriculture should focus more of their efforts towards the institutional experiences they are offering “more effort will be needed to develop an inclusive college environment and curriculum” (p. 166) and recruitment practices that cater to non-traditional students. Solely
focusing on students with prior agricultural experiences (participating in FFA and 4-H) will only continue to focus colleges of agriculture on a shrinking portion of the entire population. Colleges of agriculture can still recruit from this demographic but will need to supplement recruitment with practices that focus on the needs and interests of “non-traditional” students, those who have little to no prior agriculture related experiences.

California Polytechnic State University’s (Cal-Poly) College of Agriculture, Food, and Environmental Sciences (CAFES) has noted that incoming students possess less prior agriculture experiences than their predecessors (Swan & De Lay, 2014). Agriculture is a billion-dollar industry in California. It takes thousands of employees to keep it running, most of them with degrees come from local colleges of agriculture. Retention in colleges of agriculture is a concern because the agricultural industry relies on these institutions for new “industry-ready graduates” (p. 330). However, this puts pressure on CAFES to prepare students with a growing gap in experience tied to the skills and knowledge required for graduation.

Swan and De Lay (2014) set out to determine the agriculture and leadership experiences of current CAFES undergraduate students and what influenced these students to enroll in a CAFES major. They delivered a survey instrument online and had a response rate of 27 percent. The researchers found that 75 percent of the students did not enroll in secondary agriculture courses either because they had no interest or these courses were not offered. The most influential factors in choosing their major were their parents and visiting campus prior to applying.

As US society continues to move away from production agriculture, there is a proportional decline in the amount of individuals involved in agricultural youth programs (Swan & De Lay, 2014). With these results Swan and De Lay recommended that the college do more
with 4-H agents and volunteers and agriculture instructors to recruit more students into their programs to provide more students with these experiences. “Faculty members are frustrated with current students who come in with a lessened skill set and limited agricultural experiences” (p. 334). This study exhibited how colleges of agriculture perpetuate the current culture of catering to “traditional” students rather than shifting their practices to fit the changing demographics of their students. To ease this frustration and the frustration of students who have these experiences but were not admitted, CAFES should insist “specific agricultural work and leadership experience(s) be added to the current metrics of admissions selection criteria” (p. 334). Doing this will create a barrier to admission for non-traditional students, limiting the diversity of colleges of agriculture.

Considering that nontraditional students ended up enrolling into a college of agriculture, it is assumed that they developed an interest in agriculture (Swan & De Lay, 2014). Therefore, programs cannot penalize students for not possessing experiences or knowledge that was not available to them. Doing this would neglect the 75 percent of students who enroll without formal education in agriculture. It is a better practice for institutions to update curriculum to include instruction that bridges the knowledge gap of students who do not possess prior agricultural experience rather than starting the majority of students at an academic disadvantage.

Research indicates that diversity has increased in colleges of agriculture within the past 50 years (Setterboro et al., 2017). Acknowledging this trend, Setterboro and associates explained that there is a need to adjust recruitment practices to draw more non-agricultural students into colleges of agriculture since this appears to be a larger portion of the population interested in enrolling. The authors identified some recruitment experiences that influenced atypical students’ decision to enroll in the College of Agriculture Science and Natural Resources (CASNR) and
Texas Technical University. Setterboro and associates chose 10 participants, who had never participated in 4-H or FFA and whose family did not rely on any income from farming, to engage in a focus group. Students responded that they chose CASNR because there was a variety in degree offerings, opportunities to interact with faculty and staff on a personal level, and a specific set of institutional characteristics that made enrolling appealing.

Based on these findings, Setterboro et al. (2017) recommended that colleges of agriculture should promote the inclusion of atypical students by focusing on the diversity of career options graduates have when they complete their program. “Participants stated faculty and staff interactions were a distinguishing characteristic of CASNR that influenced their commitment to their degree programs” (p. 49). The authors also pointed out that since having the ability to create strong interactions with faculty are influential in a student’s choice to enroll, institutions must be sure that strong faculty-student interactions are occurring to maintain retention. Student-faculty interactions are important to student success and this article highlighted how especially important these relationships are to students who are entering colleges of agriculture without having prior agricultural experience. Through their interviews, students relayed that their positive relationships with faculty allowed them to gain insight on career opportunities and assistance with coursework. These relationships can provide students with the support they need to navigate career pathways within the agricultural industry and aid in them not feeling disadvantaged because they are “atypical” students.

Retention in Colleges of Agriculture

In a review of past and present retention work, Tinto (2006) explained that scholars once viewed retention through a psychological lens and a reflection of student attributes. It was believed that students withdrawing from programs due to their individual inability,
unwillingness, or lack of motivation to persist. The current recruitment practices outlined, encourage focusing recruitment efforts on students with prior agricultural experiences termed “traditional” students. With these practices in place, there becomes an expectation that incoming students are familiar with agriculture and faculty become frustrated with non-traditional students because they are seen as being unprepared for the curriculum. Therefore, the lack of persistence of these students connects to their lack of experiences and ability to succeed in programs rather than the expectations placed on students by faculty and colleges of agriculture.

Students who chose to leave their academic program may not drop out of the university completely but rather transfer into a different academic program at the same institution. Cole and Fanno (1999) investigated students who left their College of Agricultural Science (CAS) at Oregon State University (OSU) before completing their four-year degree. Their purpose was to ascertain why students were leaving the CAS. They mailed survey instruments to a total of 498 students who left the CAS but stayed at OSU and students who left both CAS and OSU between 1992-1997. The main reason why students left the CAS but stayed at OSU (85 percent) was due to a change in their career goals with 44 percent of these students transferring to the College of Liberal Arts.

Cole and Fanno (1999) found that 38 percent of females reported that the rigor of the CAS curriculum exceeded their expectations and was the reason why they left the college. All males who responded, and 94 percent of females who left the college, reported not having any prior agricultural experience (in this case involvement in the FFA). Students who left both the CAS and OSU reported that their main reason for leaving was due to lack of money (46.9 percent), and change of career goals (44.4 percent). They found both groups of students to have
an overall lesser level of involvement in university and college organizations than those students who remained in the CAS and OSU.

Cole and Fanno (1999) suggested that in order to resolve the issue of retention, colleges of agriculture must increase recruitment of students with prior agricultural experience, specifically involvement in the FFA and 4-H. This negated the finding that most of the students who left the CAS had a change in their career goals, which cannot be linked to participation in FFA and/or 4-H. Also, involvement in FFA and/or 4-H occurs prior to enrollment in college. These organizations are a small portion of a student’s social system as this variable mostly includes experiences gained while enrolled at an institution. In order to understand why students are dropping out of colleges of agriculture, it is important to learn what experiences have impacted their decisions while enrolled rather than attempting to link participation in youth organizations that occurred prior to enrollment.

Diversity has increased in many colleges of agriculture over the past few decades (Shrestha, Suvedi, & Foster, 2011). There are now more students from diverse racial and ethnic backgrounds, more women, and a wider range of students with varying perceptions of agricultural values. In their study, Martin and Wesolowski (2018) explored the experiences in non-conventional majors within the College of Agriculture at Colorado State University. They performed a narrative examination using one-on-one interviews with undergraduates in the organic agriculture and horticulture programs. Two main themes arose from their interviews: students felt isolated within the college of agriculture and they felt that the traditionalist culture of the faculty negatively impacted them when seeking guidance about non-traditional career pathways. Students who had differing views than their peers towards certain aspects of the
agricultural industry did not feel comfortable participating in group discussions or sharing their opinion when working in groups.

Students also felt that faculty members assumed a certain base knowledge of all of their students which made it difficult for students who did not come from an agricultural background to keep up with topics (Martin & Wesolowski, 2018). The results also showed that students had issues with faculty members not being able to give them career opportunity advice outside of their department and if they had aspirations to work in non-conventional agriculture they were guided out of the college of agriculture into programs in other colleges such as natural resources. Martin and Wesolowski suggested that programs and departments must be cognizant of the differing agricultural values that are among their student population and be prepared to share information about potential opportunities, outside of conventional agriculture, with their students. “This lack of community for students was potentially detrimental to them because it could indicate that they lack a supportive educational community” (p. 14). If the intent is to keep students within colleges of agriculture, faculty must be willing to put in the effort to genuinely engage with students and provide guidance that aids student’s in their decision to persist.

Tinto (2006) stated “the action[s] of faculty, especially in the classroom, are key to institutional efforts to enhance student retention” (p. 5). It is essential that faculty in colleges of agriculture are encouraging to all students regardless of their prior experience. “Knowing why students leave does not tell us, at least not directly, why the students persist” (p. 6). Although there are studies that outline why students chose to enter a college of agriculture, there are few that explore why students leave, and even fewer that inquire as to why students chose to persist.

Chapter Summary
Student retention is not a new issue (Asint, 1999; Tinto, 1975, 1993, 2003, 2006). However the research of retention within colleges of agriculture has been limited to studying
factors that are perceived to predict student retention (Dyer, Breja, Wittler, 2002; Garton, Ball, Dyer, 2002; Garton, Dyer, & King, 2001) rather than focusing on factors that occur while students are enrolled within the institution. As the demographic of students continue to shift from majority traditional students to a more even distribution of non traditional students (Shrestha, Suvedi, & Foster, 2011) it is important that we understand how the culture and experiences we are upholding within colleges of agriculture are creating a welcoming environment that encourages student persistence (Setterboro et al, 2017).
CHAPTER 3

Methodology

This chapter discusses the methodology used in completing this study that explores the experiences of students who have dropped out of a college of agriculture and those currently enrolled who have seriously considered dropping out, but ultimately persisted. This section includes the researcher’s bias and contextual connection, the research design, population, participant selection, data collection, analysis strategies, bracketing, the researcher's epoche, and demonstration of the trustworthiness of the study.

Guiding Research Question

This study is a phenomenological inquiry into how students construct the decision to drop out and why some choose not to drop out but instead to persist in their programs. The research questions guiding this study were:

1. How did the experiences within the individual’s formal and informal academic and social systems lead to their decision to drop out or persist?

2. How did interactions from external communities contribute to the student’s decision to drop out or persist?

Epistemological Position

The researcher’s epistemological lens is constructivism. This view follows the assumption that each individual will construct their own reality based on their perception of their experiences (Merriam & Tisdell, 2016). Recognizing this allows me to better understand the importance in how a student perceives their experiences and how participants attribute the meaning of these experiences to shape their overall perception of the institution. This perception drives their decision of whether or not they persist in their degree. In order to understand how
these students interpret their experiences and the meaning they construct from them, I will conduct a phenomenological qualitative study. Having a constructivist lens when conducting interviews will aid in the exploration of how the meanings participants attributed to their experiences influenced their decision to dropout and to persist within their degree programs.

**Introduction to the Method**

This study explores the factors that influenced students to consider dropping out of a college of agriculture using a qualitative approach. Qualitative research can refer to “people’s lives, lived experiences, behaviors, emotions, and feelings” through non statistical procedures (Strauss & Corbin, 1998, p.11). A qualitative approach allows for a further exploration of areas in which little is known and/or to gain more novel understandings about where there seems to be a substantive knowledge.

Qualitative research studies things/individuals in their natural setting and attempts to make sense of, or interpret, a phenomenon (Denzin & Lincoln, 1998). These studies illustrates the meanings that individuals bring to their experiences within that phenomenon. Qualitative methods such as interviews, field notes, observations, and collecting descriptive data all can contribute to “obtain the intricate details about phenomena” including individual’s feelings, thought processes, and emotions (Strauss & Corbin, 1998, p.11). All of these emotions and feelings would be difficult to ascertain through the use of quantitative methods.

Phenomenology is a descriptive type of qualitative study of human experiences (Wetz et al., 2011). It aims to conceptualize the processes and structures of life and how situations are “meaningfully live[d] through as they are experienced” (p.125). Phenomenology aims to grasp the essence, identity, and otherness of a phenomena or event (Manen, 2014). The phenomena being observed in this study is student retention in colleges of agriculture.
Population

The population for this study was ten students who matriculated into the College of Agriculture and Life Sciences (CALS) at North Carolina State University. All of the students at some point seriously considered withdrawing or did withdraw but are currently continuing their degree program. Nine are continuing their degree program within CALS and one transferred to another institution. These individuals were contacted through a recruitment email sent to students who are currently enrolled in CALS at NC State and those who had withdrawn in the past five years. I retrieved the contact information for this population from NC State’s Office of Registration and Records. Of the ten students interviewed, all of them are working towards finishing their degree in CALS at NC State.

Research Design

Phenomenology allows the researcher to understand “what is experienced and how it is experienced” (Wetz et al., 2011, p.125) through methods such as one-on-one interviews. Asking individuals to delve into their recollection of their experiences allows a researcher to “tap the nature of student experience and the impact the institution has upon that experience” (Tinto, 1993, p. 214). The primary purpose of phenomenology is to study how we find ourselves in relation to other individuals and other things (Vagle, 2014). It is important for this study to not only understand a students’ consideration or decision to withdraw, but also to understand how they view that experience as well as how they reflect on themselves within that experience. Vagle noted that when we conduct a phenomenological study, the researcher is not trying to get into the participant’s mind but trying to “contemplate and theorize the various way in which things manifest and appear in and through our being in the world” (p. 22).
Phenomenology is a way to access the world in the way that participants experience it prereflectively (Manen, 2014). Manen explained that prereflective experiences are the ordinary experiences that participants live in and through for most or all of their day-to-day existence. It is the goal of this study to discover the prereflective experience of students who have seriously considered withdrawing from their agriculture related programs and how they understand and interpret that experience.

**Data Collection and Analysis**

I collected data through in-person, semi-structured interviews. There were a total of three face-to-face interviews for each participant and each session lasted no longer than an hour. There were 15 guiding questions used by me to guide the conversation and allow for flexibility in exploring emerging issues (Merriam & Tisdell, 2016). I created the guiding questions to obtain student related data including attributes, intentions, and activities, as well as their range of academic and social experiences within their institution. This allowed for the creation of a picture that details “both the social and academic experiences of students as it is understood by students” (Tinto, 1993, p. 214). All interviews were audio recorded and I took field notes during and after each interview.

Following the interview, data collected were transcribed using Rev.com, an online transcription service. All of the transcriptions were read over with the audio recordings by me to ensure accuracy. Once transcribed, I employed member checking to increase validity of data. Member checking is an important way for researchers to identify their biases and misunderstandings of what they observed (Merriam & Tisdell, 2016). Member checking includes sending transcripts and preliminary or emerging findings to participants who have been interviewed for their verification and ability to recant or elaborate. Through the method of
member checking, the validity process “shifts from the researchers to the participants in the study” (Creswell & Miller, 2000, p. 127). There are several ways to facilitate this, but the one chosen for this study was to “have participants view the raw data” (p. 127), the interview transcripts, and comment on the accuracy of the transcriptions.

During analysis, I conducted data triangulation to identify recurring patterns. Triangulation was achieved through the use of member-checking. Triangulation is a step that only uses the researcher’s lens to systematically sort through data in an effort to find common themes or categorizes by eliminating areas that overlap (Creswell & Miller, 2000). These patterns were then coded and utilized to improve the existing guiding questions for subsequent interviews (Creswell, 2006).

The data were first read following the phenomenological method of whole-part-whole (Vagle, 2014). According to Vagle, this method stems from the idea that the researcher must always consider and think about the focal meanings in relation to the broader context, or whole, in which they are situated. The components of this method include first holistic reading, first line by line reading, second line by line reading, second holistic reading.

First Holistic Reading is the first initial reading of the entire text. This reading allows the researcher to become attuned with the whole data collection event. The researcher read over each individual transcript in its entirety before conducting any analysis. During the first line by line reading the researcher read through each individual transcript line by line, being careful to take notes and mark any excerpts that appear to contain initial meaning. Following this a second line by line reading was conducted with each individual transcript, this time analyzing the data for meanings that emerged based on the notes taken from the first line by line reading. Finally, a
second holistic reading was done, reading over each transcript in its entirety to find recurring themes, or patterns, that she light on the phenomena being studied.

**Presentation of Phenomenological Data**

The writing of qualitative research is a reflective process that addresses a phenomenon (Manen, 2014). This reflective process attempts to “recover and express the ways we experience our life as we live it” (p. 20). The data are read using the phenomenological method of whole-part-whole (Vagle, 2014) and analyzed for “thematic similarities and differences at the hand of constant comparison of people’s narratives” (Manen, 2014, p. 319). This thematic analysis aims to discover categories in which data can be sorted in order to identify and/or describe phenomena. These themes allow researchers to reveal how human beings understand the world and their lived experiences. The phenomenological data are texts that embody and represent the lived experiences of participants. Thematic analysis allows the researcher to recover the “structures of meaning” within that text in order to further understand the phenomenon being studied.

**Trustworthiness**

Qualitative research is based on the assumptions about reality and different world views that are congruent with the philosophical assumptions underlying the paradigm under study (Merriam & Tisdell, 2016). Due to this, it is the burden of the researcher to rely on and utilize guidelines and regulations for help as well as to ensure that their study “has been conducted and disseminated in an ethical manner” (p. 265). A study is considered trustworthy if the researcher has carefully designed it and applied the standards that are well developed and have been accepted by the scientific community. The researcher addressed the challenge of demonstrating trustworthiness by increasing the credibility, transferability and dependability of this study.
Credibility

Credibility is the “truth of the data or the participant views and the interpretation and representation of them by the researcher” (Cope, 2014, p. 89). Scholars consider qualitative research credible if the descriptions of the human experience documented are immediately recognized by individuals who share the same experience. In an effort to support the credibility of a qualitative study, the researcher should be able to demonstrate the engagement, methods of observations, and audit trails conducted in a study. Credibility was attained in this study through the use of member checking.

The credibility of a study is enhanced when the researcher describes their experience as a researcher and verifies the research findings with participants (Cope, 2014). I achieved this through member-checking. Further, I solicited feedback from participants based on the “preliminary or emerging findings” (Merriam & Tisdell, 2016, p. 246) from some of the participants of the study. Participants verified the accuracy of the data collection by reading over completed transcriptions of interviews.

Transferability

Transferability refers to findings of a study that are able to be applied to other settings or groups (Cope, 2014). A qualitative study can be considered transferable if the “results have meaning to individuals not involved in the study and readers can associate the results with their own experiences” (p. 89). The researcher can achieve this by being sure to provide a sufficient amount of information on the research context in order to allow readers to assess the study’s capability of being “fit.” The criterion of transferability depends on the aim of the study and may only be relevant if the researcher intends to make generalizations about the subject or phenomena
of the study. These generalizations make it possible to recognize recurring aspects of the meaning of the phenomena under study (Manen, 2014).

**Dependability**

Dependability is the constancy of data over similar conditions (Cope, 2014). A study can be deemed dependable if the findings were replicated with similar participants in similar conditions. This is difficult to do with qualitative research and so documentation is an important factor in achieving dependability (Whitaker, 2018). I employed two methods of establishing dependability in this study, which were documentation and journaling. Thorough notes were taken throughout the process to document all contact made with participants. Further, I kept a “paper trail of documentation” that included a record of each contact with participants and interview details. This information was kept in a notebook that was stored in a secure locked location.

Journaling allowed me to remain as objective as is possible within the phenomenological approach of the study. I wrote thoughts, observations, and impressions in a journal after each data gathering event (Vagle 2014). By journaling after each data collection event, or interview, I was able to realize potential biases and reflect on the interview experience.

**Epoche**

**Researcher’s Epoche**

Reflecting on my own experiences and understanding the meanings that I have attributed to them will inhibit my personal bias from having a strong impact on the study. I was a student that matriculated into CALS, so the use of epoche is vital in my study.

I was raised by a village. My mother had me at a very young age and so my grandparents and my aunt stepped in to join her in guardianship. Having four parents meant that I had four
people to love and support me in all of my ventures, the only thing they asked for in return was that I stay committed to my education.

My grandparents were sure to instill the value of education in me at a young age and because of this I have always loved school. I didn’t just love school because I was able to hang out with my friends or go on cool field trips, I loved the gaining of knowledge. I loved it because I was always told that having more knowledge made me a better person, that it added more to my value as an individual.

This notion, of having to “need” education to be more valuable in the eyes of society is something that only grew stronger as I got older. I dedicated my life to school. I had perfect attendance from first grade up until my high school graduation day. If anyone suggested that I was too sick to go to school I would cry and throw a fit because there was no way I was messing up my attendance record.

I was always a great student, not because I was smart from a young age, but because I knew that my grades were important for the next step. Having good grades meant you were solidifying your ability to achieve the next goal. There was always a next goal for my education.

I began my educational journey when I was three in a prestigious k-3 program. Being in this program allowed me to enter a pre-k in the best elementary school in the county which was an international baccalaureate. This was important because being in this elementary school and doing well would guarantee my spot at the international baccalaureate middle school that was in the top 5 in the county. All parents wanted their students to go to this middle school because it was a feeder school for the best high school in the county. Doing well in that high school ensured that students would get into the best universities across the country. It was a linear line, a path, which started before a student could read and, if followed, would set them up for success.
These schools fed into one another because they shared curriculum and expectations. In elementary school we were told we were being taught middle school curriculum so we would be ahead. The middle school gave us high school level work and the high school gave college level work. Students were set up to always be a step ahead. Schools achieved this by creating an intellectually competitive environment. Students were groomed to believe that their goal was to be the top of their class and class ranks set the social hierarchy.

This practice of competing to be smarter than my peers was reinforced at home. My family pushed me to get the best grades, not better, the best. When I thought I had done well on an assignment because I received a better grade than most of my peers, I was met with the same encouraging statement from my grandmother “only compare yourself to the best, not the worst”. This statement was my motto for most of my academic life. It pushed me to believe that if I was not the best, the most intelligent, the one with the perfect grades among my peers, I would be lumped in with the worst.

I thought all families were like mine. I thought all families held having superb academic performance as a requirement for love and support. It wasn’t until I got to high school where I met my, still to this day, best friend that I realized having a family that values education above all else is a privilege.

This privilege runs deep. Unlike my friend, I had multiple guardians who participated in higher education. Both my aunt and my grandmother received their bachelor’s degrees and enrolled in a master’s program. My grandmother completed her masters and enrolled into a doctoral program. Once I went to college myself I realized that having the urge to obtain a degree was not the only reason they were able to enroll. They could afford it. They were able to
pay application fees, tuition, and also able to access loans. These are privileges that my friends’ family did not have.

By the time I was in high school I found myself at the top of the social hierarchy. I knew I was going to college, all I had to do was pick one. Not just any school but one with a good reputation so that when people heard where my bachelor’s degree was from, they would undoubtedly recognize my value.

College selection time was frustrating for me because as I was gearing up to schedule campus tours my best friend did nothing. She had no plan to go to college. She didn’t feel the seemingly life depending need to go to college. This frustrated me to no end. I distinctly remember going home and ranting to my family that I couldn’t understand how she was such a slacker. Throwing out questions such as: What is she going to do with her life? Why does she have no motivation? How am I friends with someone that has no values?

My frustration only grew. I quickly realized that unlike myself and most of our peers, her family had not promised her the ticket to a college education. In my eyes they were a dark force conspiring to hold her behind. I couldn’t understand why they never talked to her about college, why they told her if she wanted to obtain a degree she would have to figure out how to pay for it herself. I was angry at them for her and she seemed oblivious to the tragedy she was facing. She was not going to go to college.

We grew apart after graduation. Not because of our 900 mile distance or because we grew into different people, but because I increasingly felt awkward around her. When I would come home from breaks I made sure to be intentional about not mentioning college or my experiences. When our other friends did I always felt embarrassed for her because I knew that it must have felt like a stab in the heart hearing other people’s experience gaining the education she
was not granted to obtain. It was even worse when she came to visit me while in undergrad. I didn’t know how to be around her, how to be around someone that was “not educated”. During gatherings with my friends whenever someone would casually toss out the phase “we can all figure this out, we’re all in college” my eyes always shot towards her. Ready to comfort her from any pain or guilt she felt from these statements, but I never had to. She never felt the emotions I was bestowing upon her.

This strained our relationship and looking back I realize that the distance that grew between us was because by a single thought that wasn’t even mine to begin with—having a higher education degree makes me better than someone who does not. This thought is absurd and now as a student getting ready to graduate from a master’s program I recognize that this was not my thought but a seed planted and carefully cultivated by the society I am in and my family.

Studying retention in higher education has made me realize that there is so much messaging that individuals “need” a degree. They can earn more money, they will be more productive members of society, life will be exponentially more difficult if they don’t have one. However, I believe that this mentality is one of the biggest factors influencing retention. How many students get pushed into believing that their life will be doomed if they do not hold a degree? So they force themselves to obtain one, no matter what the personal sacrifices.

**Chapter Summary**

This chapter outlined the methods I used to conduct this phenomenological qualitative study. Three in-person interviews were conducted with a total of 10 participants who have matriculated into CALS and NC State. These individuals have either seriously considered withdrawing, or did withdraw, but are currently persisting in their degree program. Data were transcribed and thematically analyzed using the whole-part-whole method. The credibility,
trustworthiness, dependability, and transferability of this study were established through the methods of member-checking, peer-debriefing, documentation of the inquiry process, and journaling.
CHAPTER FOUR

Findings

The findings of this study are organized by themes that emerged during the data analyzing process. This presentation highlights the meaning participants have given to their experiences and how these experiences influenced their consideration to withdraw and/or their decision to finish their degree program.

Introduction to Participants

Obtaining participants who have withdrawn from the university and did not re-enroll to complete their degree program was difficult. When emailed many individuals who were listed as having dropped out asked to not be contacted again. It appears that individuals who leave the university and do not intend on returning to complete their degree are unwilling to speak about their experiences and are unwelcoming to any correspondence from the university. Due to this, the researcher contacted individuals who are currently enrolled and classified as juniors or seniors within the College of Agriculture and Life Sciences (CALS) at North Carolina State University. Ten participants were interviewed for this study. All participants in this study were students who matriculated CALS at North Carolina State University. All ten of the participants have seriously considered withdrawing from their degree program, meaning they actively had recurring thoughts and/or explored leaving the institution. Seven participants ultimately persisted, three did withdraw, however, two of these three returned to NC State to complete their degree program within CALS. The major themes that arose from this study were: a lack of social support, pressure to earn a four-year degree, and uncertainty in their career goals. The participants are identified by pseudonyms: Justin, April, Kristin, Eleanor, Katie, Bernard, Gregory, Amanda, Natasha, and Jasmine. Justin, April, Eleanor, Katie, Bernard, Natasha, and Jasmine considered dropping out but decided to
persist within their degree programs. Amanda, Gregory, and Kristin all withdrew from NC State within the past five years. Gregory and Kristin reenrolled in their degree program and are currently working on completing their bachelor’s degrees. Amanda is completing a bachelor’s degree at a different institution.

The participants ranged in age from 18-31. Three participants identified as African American and the rest identified as White. Two of the participants took agriculture courses in high school, one of these participants was involved in FFA. None of the other participants had any kind of prior agricultural experiences preceding their enrollment into a four-year degree program.

The purpose of this study was to explore the factors that influenced individuals to seriously consider dropping out and/or what factors influenced them to persist. Participants were asked to reflect on their experiences, thinking about how they internalized and made meaning of their experiences and used this meaning to create their reality. Participants relayed their experiences and discussed specific factors that, upon later reflection, they realized influenced them to seriously consider dropping out or to persist in their degree programs. The following themes emerged from the data collected and are presented by research question.

**Research Question One**

*How did the experiences within the individual’s formal and informal academic system lead to their decision to dropout or persist?*

**Choosing Agriculture**

Academic integration consists of a formal and informal system. The formal academic system consists of experiences that take place within the classroom. These experiences can consist of interactions with peers and faculty in relation to the curriculum, participating in faculty office hours, and a student’s academic performance. The informal academic system includes interactions
that take place outside of the classroom setting such as forming of study groups and interacting with faculty other than talking about curriculum including asking for mentorship or guidance on career opportunities, or as a confidant.

The College of Agriculture and Life Sciences offers many degree options that are reflective of the growth of the industry. Four participants genuinely had a passion for the agriculture industry and chose to enroll in a college of agriculture to gain more knowledge of the agricultural industry. Only one participant shared that she chose to enroll in a college of agriculture base on her previous agricultural experiences.

I went to an agriculture based high school, early college program, and I really fell in love with agriculture there. I’d always been in love with veterinary medicine and I just wanted to continue animal science and learning about agriculture as a whole. (Natasha)

Three of the four participants who stated that they enrolled into the college of agriculture based on their passion for the agriculture industry did not have any prior agricultural experiences. Gregory noted, “I don’t come from an agriculture background, but it was basically what I wanted to do. It seemed a lot more aligned with my career goals, so I ended up here.” They wanted to enroll in a program that would teach them more about the aspects of the industry that intrigued them as well as the agriculture industry as a whole. For instance, April and Katie found subjects they were passionate about that lead them to agriculture. April commented,

I really was interested in the GMO aspect of agriculture lately. And it was just something that I was like, I’m really interest[ed] in. And so I was like, I’m going to try crop biotech and see how that goes. So that’s what pushed me into the college of ag and life sciences

Adding to following interest and passion, Katie shared

I’m passionate about the food system and how it all works together and helping it, you know, because they told us … That for every six people that leave agriculture only one goes in and I was like, I’m going to be that one person that goes in
Three participants did not necessarily choose to enroll within a college of agriculture to be a part of the agricultural industry but rather enrolled into a major that they were not aware was a field within the industry. Justin noted that he enrolled “because that’s where the major I chose was.” These participants selected majors that leaned more towards the biotechnology side of the agriculture industry, which has become a growing sector. For instance, Jasmine stated that she chose these majors because she believed “that getting a degree in that area would be more lucrative” as jobs within this field continue to become available. Further, Bernard commented that he felt that he “could kind of do anything with” with a degree in agriculture thus making him more marketable when he begins his job search after graduation. A student recognizing why they enrolled into their degree program can aid as motivation for performing well academically.

**Difficulty with Academic Integration**

According to Tinto’s (1993) model of student departure, academic integration is vital in order for a student to persist in their degree program. Pre-entry attributes, such as high school grade point average and standardized test scores, are used to predict an individual’s likelihood of academic integration and, subsequently, as admission requirements. Participants stated that comparison to their peers, struggling with academic rigor, the uncertainty of their career goals, and their interactions with faculty all influenced their decision to consider withdrawing from the institution.

**Comparison to peers.** Many participants gauged their academic performance by comparing themselves to their peers. This comparison can be a good gauge for one’s academic standing in a course that curves the final grade based on the average student performance. Amanda alluded to this, commenting.
Some classes I know are more difficult, so there would be curves. I knew that if I was kind of, like I was getting the same grades as a lot of other people that I knew, then I was like well, you know, kind of average.

Amanda noted that she partook in this practice of comparison because other students did it as well and comparing grades among each other was common practice. “I guess everyone’s kind of doing this. The people around me too.” The frequency of comparing oneself to their peers was confirmed by another participant. Bernard explained, “A lot of times I’ll just look at the grades and see how my classmates are talking about theirs and kind of compare mine.”

Although these participants felt that comparing themselves to their peers was a good gauge of their academic performance, two participants stated that comparing themselves to others became consuming and led to self-doubt. Natasha reflected, “I found myself comparing … because it’s just you’re with the people in class and you know, they sound sad about making a B and you make a C and it’s just a whole bunch of comparing”. This self-doubt led her to feel “really disconnected with the studies” (Natasha) which evolved into a feeling of “disappointed in myself that I couldn’t grasp it” (Natasha). Amanda echoed these feelings and revealed that comparing herself to her peers made her question her passion towards her major.

I think it would be a thing that kind of drew me away from doing school. Sometimes I think it’s like oh, they’re way more passionate about this or interested in this than I am and I don’t feel the same way they feel about this or understand it the same way they do.

The feeling of underperforming compared to their peers and not having as much interest in their major presents the possibility for this self-doubt to affect their academic performance and struggle with the rigor of their curriculum.

**Struggle with academic rigor.** Some participants had difficulty transitioning to the rigor of their major coursework. Many participants felt that they did not have to put in much effort towards their academics in high school to do well and had a difficult time adjusting to the need to
create study habits. Jasmine stated, “I didn’t really consider the amount of time I would need to spend really grasping a concept because you know coming from high school we didn’t really take that long”. Justin added, “Everything is a lot more complicated. The biggest shock to me then was the step up in difficulty. I wasn’t really expecting it to be that much harder than high school was”.

This shock in the increase of academic rigor made it difficult for participants to find the motivation for their schoolwork, which affected their academic performance. The decrease in their academic performance made participants question whether they should persist. For instance, Amanda stated, “I think I felt like I needed a fresh start because I had done poorly at times”. Justin noted that the difficulty with the curriculum and academic rigor was a strong influence in his consideration to withdraw from the institution. He stated,

Because I was really not having a good time. It was a lot of heavy coursework. I didn’t understand anything. I was tired. I didn’t want to do it anymore. I was just, I wanted to give up at that moment.

Jasmine also felt that her struggle with the academic rigor was a significant influence in her consideration to withdraw. She noted,

I think I just did really poorly that semester to the point where I felt like, I may have been on academic probation, and I just felt like maybe college wasn’t for me anymore or maybe this major is too hard.

Struggling academically gave Jasmine anxiety about graduating on time, because she was not doing well in required courses for graduation to adding an extra semester in order to retake these courses for a passing grade. The stress of having to push off graduation made her contemplate whether or not she should persist in her degree program. Jasmine stated,

I knew that if I did not pass that would make me behind a semester to graduate and that brought me a lot of embarrassment and anxiety for graduation. Just the thought of graduating late for whatever reason made me feel like maybe I should leave.
Amanda stated that her struggle with her academics was one of the reasons she withdrew from the institution, “I dropped out because I felt like I wasn’t being very successful, so I needed to like just do something different for a little bit”.

Two participants expressed that they felt they struggled academically because the curriculum assumed a base knowledge of the agricultural industry that they did not have. April explained, “It was very rough for me because I didn’t come from an ag background”. She describes that being in agriculture related courses “was a shock to me because it just kind of was pushing me right into farming” which was not what she wanted to do with her degree. It also made her feel behind in knowledge compared to her peers as “everybody else in the class kind of knew everything and I was like, what is going on? It made me feel a little more stupid cause I didn’t have an ag background so that made it tough”. She felt like the concepts were things that she should have learned very early in her education,

I feel like some of these things a kid would know like the back of their hand and it’s still taking me time to train myself and memorize. It would make me feel a little behind especially when I get tripped up over one concept or theory.

Feeling behind, April also felt that she did not belong in her major courses, “Not coming from an ag background and being in some of these ag courses, I just felt like I didn’t belong. I was just thinking I’m just dumb.” April noted that this was especially true for her crop production courses.

Gregory also felt behind not coming from an agricultural background. “It wasn’t until I got into the ag classes where we were speaking about specific ag issues, coming from no ag background, I had no exposure to these issues that we were discussing in class.” He quickly realized that he would need to put in more effort than his classmates to keep up stating, “I have to put a little bit more effort to really grasp the concepts that are being discussed”. In order to compensate for his lack in base knowledge he would put in time outside of class to study these
topics. Gregory noted, “It was difficult at first, but I was interested in it and during my downtime, I would take notes for my own personal sake in class, and I went home and educated myself on it”. The stress of not performing well academically led four participants to seriously consider dropping out from their degree programs. It also led five participants to feel uncertain about their career goals and whether they chose the right major.

**Uncertainty of career goals.** Struggling with their academics, participants questioned whether they chose the right degree program and questioned their long term career goals. Jasmine stated, “I started having academic difficulty. I went through a time of not knowing what major I wanted to be in anymore”. Eleanor revealed that she no longer felt a passion for her degree program, “I didn’t feel like I liked my major anymore”. Amanda echoed this feeling stating, “I felt like I changed my mind about what I wanted to do as far as like a major and things”. For April, not feeling comfortable with her degree program was an influence in her decision to consider dropping out, “I really lost sight of why I chose my major and, um, lost sight of my passion”. Katie also noted that their increasing lack of interest for their major influenced their decision to withdraw from the institution, “I didn’t feel at home with what I was doing, with what I was studying, with even being on campus at State, I was just like another person”. Not feeling comfortable in their degree program left participants losing their purpose on campus and questioning whether they should persist in their degree program. When these feeling came up, they often turned to their faculty members for guidance.

**Faculty.** All students at an institution interact with faculty in some way. An instructor’s approachability is important to the success of the student because when they feel comfortable, they are more likely to ask questions pertaining to their academic performance. Participants have said that their relationships with faculty on campus has been situational. Bernard shared, “It’s been
good. There’s some relationships that are better than others, but that’s to be expected for the most part. I’d say all of them I get along with pretty good”. Justin noted the stark difference between faculty members he has encountered on campus.

That varies a lot. Some of them are like, oh yeah sure here are my office hours at all of these times, feel free to drop by whenever, just email me and we can talk, and some are like I’m only available for 30 minutes after the third full moon of the year. So if you miss that one you’re shit out of luck.

Some participants stated that they had negative experiences with faculty that made it difficult to feel supported. Kristin noted that with her first advisor their interaction was just a formality “Oh, you’re just here because I have to see you to approve your classes. Okay, it looks fine, get out.” This harsh interaction was “not very helpful” and made her reluctant to seek interactions from other faculty members in her department. Later she found an advisor who was very supportive and stated that “[They] were so much more engaged and that was so much more helpful.” She reflected on the contrast of her two advisors and stated that if she had the supportive one first she would have been less likely to withdraw. “If I’d gotten that from the beginning with my primary advisor I probably would have done things a little differently. Just having that engagement really helped.” Justin echoed this and stated “I just would have liked a little more involvement” from his advisor. Having this would have given him more clarity on his major and career goals.

When approaching their faculty members about their career goals, some were met with opposition from their advisors and felt that they were not supported in their decision to pursue their degree program. Gregory noted, “My advisor was like a pain in the ass to talk to about anything cause he was just really narrow minded”. Natasha echoed that her advisor was unsupportive of her goals, “My advisor, every time I go to her she’s giving me options on another major to pick or another career plan. I never thought she was supporting my original dream”.

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Jasmine also felt that her advisor did not support her goals and even told her that she would not be able to handle the rigor of the curriculum. “He basically told me that he thought [this major] was too strenuous for me.” This began to affect her academic performance. “That affected me academically because if you can’t, or in my opinion, I can’t see the end result, like why do I even need to do it?” This left her feeling not only unsupported but also questioning whether she chose the right degree program and whether she should continue to persist in her degree program or dropout.

I felt like my advisor didn’t really support what I wanted to do with my major and that kind of made me nervous, you know, thinking that, okay, well if he doesn’t think that I can do it then maybe this isn’t the right choice for me. It did make me feel like, well maybe college isn’t right for me at all.

When participants considered dropping out some did not feel supported by the faculty and staff within the college.

The academic advisor for my department and the support staff for CALS were not willing to listen to the big picture things. When I explained everything that was influencing my decision to withdraw they simply approached it as, well if you dropout then you’re not going to return. (Gregory)

Gregory expressed that this made him frustrated because instead of “actually listening to the person and taking into consideration what they are saying” the CALS staff tried to pressure him into staying with the threat that if he were to take a break he would never complete his degree. He noted that he felt that he would have liked for them to have told him “if you do pursue this decision [dropping out], here’s what you can do to get back and we’ll keep this channel of communication open in the meantime, you can always reach out to us.” Having this support would have made the transition of re-enrolling into his degree program smoother and may have even come back sooner. April said that she anticipated this lack of support from the CALS faculty and staff and because of this was deterred from discussing her consideration to dropout. “I did not talk to anybody at the
college. I felt too timid, you know, and I knew what they would’ve said. They would’ve said no, don’t do it, so I did, I chose not to [dropout]”.

Other participants stated that they had positive experiences with their faculty and that this made them feel supported in their academic endeavors. Bernard felt that “They were all supportive and they knew that everyone of us was new, so they were kind of getting us used to everything, trying to help us out”. Katie reiterated this, “… faculty and staff are amazing. Absolutely amazing … haven’t met a professor that wasn’t supportive”. Further, Eleanor stated “Some of them seemed really interested in like wanting to know me as a person and like my name and everything”. Faculty also aided in connecting students with other faculty to aid in exploring career paths. For instance, April noted, “He actually was very helpful as well in helping me meet other faculty. It’s been really awesome. Everybody’s been great”.

Feeling supported by faculty made participants feel that they could approach them any time they needed guidance. Kristin relayed, “They always had an open door, even outside of their office hours. They were very personable”. Bernard added, “Just the willingness for a faculty to help when you need it. If I need anything I can go talk to somebody and they would try their best to help me”. Kristin noted how her faculty went above and beyond to ensure that she was well and attending classes.

So in terms of faculty and staff … the [department] was fantastic. My advisor noticed that something was just off with me. She couldn’t really put her finger on it, but I wasn’t like, as on top of things as always. And so she reached out to me and that was about the same time that I ended up going to the student counseling center and she actually reached out to one of my professors and arranged with him to pick me up from my apartment in the morning, because I was stuck in such a depression that just getting out of bed to get to class was almost impossible but knowing that one of my professors was coming out of his way to pick me up, like that was kind of a motivator.

Katie noted how they felt confident that their faculty within their own programs would do the same for them and were more than willing to speak to them about their personal concerns.
… they’ve all just been super like you walk in there looking like you just got hit by a truck and they’ll sit you down and give you a cup of tea and just be like, okay, like start talking, like what’s going on, what crisis are we in this time?

This engagement was impactful for participants because it truly made them feel supported. Faculty engagement and support influenced two participants to persist in their degree program. April stated,

Oh my gosh, that was one of the most, I would say that was one of the more critical aspects that kept me in, that persuaded me that … I was in the right spot because … they seemed very understanding and empathetic and just like they knew where I was coming from with all the concerns and worries that I would tell them. That was a very important piece of my journey here.

Bernard noted that the support he received from faculty was an important factor in his success,

Well, back then it seemed like everything had a big, pretty much a big wall in front of me and I didn’t know how to get around it or get through it or anything. But now taking all the classes, getting all the help, all the people that kinda can help me and support me and motivate me, it’s kinda given me kind of like a path or at least that wall was made, it made it a little smaller, or poked a little hole through. I can see the end, I just got to work to get there.

Gregory, who withdrew from his degree program, noted how impactful it was to have an engaged faculty member as an advisor upon his return. “I got a new advisor while I was out of school and he has been a tremendous asset since I got back. And I, I, really wished that I had had him in the first place”. Having faculty members who guide students in their persistence by making them feel supported is important. Especially when they may be lacking support from their peers or family.

Research Question Two

How did the experiences within the individual’s formal and informal social system lead to their decision to dropout or persist?
Difficulty with Social Integration

Social integration is important because it allows individuals to find community within the institution that will strengthen their academic and institutional commitments. This integration also consists of formal and informal systems. The formal social system includes interacting with peers at institutional related events such as extracurricular organizations and institution sponsored events. Informal social systems consist of systems that occur within the university but are not facilitated by the institution itself. This includes interactions with roommates, suitemates, and peers on campus outside of the classroom and clubs and organizations. Involvement and integration into this system can strengthen an individual’s sense of community at an institution which can combat homesickness and make the student feel that they have a reliable support group in the event they need to divulge their academic or social struggles. Having this support group to ease the stress of the individual may encourage the student to persist in their degree when they are faced with certain obstacles.

Finding social systems within the institution and college is a key transition because most students are in a new environment and do not know anyone prior to enrolling. Gregory explained that transitioning was a shock compared to other educational transitions “It’s different because with school, until that point in college, you kind of grow up with a lot of the guys and girls, you’ve been going with them in school since kindergarten”. When students enter college, they do not have a built-in support system and so they must seek this out from their new peers.

Struggle to find community within the institution. Seven of the participants stated that they struggled with finding a community within the institution. Part of this was due to negative experiences they had with their peers. Eleanor stated, “I didn’t feel like I got a lot of social support”. She was hoping to find support coming to a large campus, but this proved to be difficult.
Eleanor also noted, “I just was missing having friends. I thought being on a campus with a lot of people I would make more friends and I was having a difficult time doing that”. This led to her feeling that she did not like being on campus, “I didn’t like being on campus with the people I was around, especially in the dorm and some of the classes I was in”. When trying to make friends, April felt that those they interacted with were closed off and unwelcoming. “People, at least my first year, kind of just seemed set off, close minded to making friends and stuff like that. So I was very discouraged. It was a rough start”. She also stated that “I actually tried to make friends and I would try and bond with people but nobody was open to new friendships”.

All of the participants lived on campus during their first semester. Although some got along with their roommates, some had negative experiences which furthered their frustration with the inability to establish social support. Bernard explained, “Well, I had a bad roommate so a lot of times I just spend arguing with him”. April added that her roommate did not talk to her, “My roommate was kind of weird. She didn’t … talk to me so I ended up moving out the next semester”. Eleanor explained that she not only had a negative experience with her roommate but also with her resident advisor (RA), “Me and my roommate didn’t get along a lot. She would do lots of stuff with other people and wouldn’t really include me”. This participant also felt that her RA was not welcoming towards her “I really felt kind of isolated cause my RA wasn’t even being as friendly to me as she was to my roommate, so it was really hard staying in that hall because of that”.

Not being able to connect with their peers made one participant, April, feel that she did not have any social support at the institution. “I didn’t have a lot of people, I didn’t have a lot of support locally, just getting that personal connection or social connection. That was kind of bumming”. The lack of connections with her peers made her miss being home and near the support systems she already had established there. “I guess it was hard to make friendships. Being three
and a half hours away it just hit me. I was so homesick”. The feeling of disconnection from her peers made April so homesick that on the first day of classes she drove back home.

I was so homesick. I would literally go to my car and cry. The first day of classes I literally got through all of my classes and then I got in my car and drove straight home and I live three and a half hours away. So it was real. I was really upset to have been driving.

Having a stronger support system back home than at the institution was a significant influence for Eleanor’s consideration of withdrawing.

Since I felt like I had most of the support from my family, it made me want to dropout cause then I would get to stay home and just get to work and I’d be at home all the time around both my mom and dad. So the fact that I didn’t have as much support on campus, that’s what kind of pushed me away from campus and willing to be there.

Being unable to establish or find a community within the institution was frustrating for participants. Bernard stated, “Well I was getting upset because I didn’t know anybody …”. The lack of this social support from peers made participant’s experiences within the institution difficult.

Kristin noted that without having a social support system she felt disconnected from the institution “I’m kind of disconnected from everyone around me.” Kristin went on to say that this feeling of being alone led to her decision to withdraw from the university.

That was probably one of the biggest things, is just feeling like I was alone. That was a big feeling throughout the whole process was just feeling so alone. Um, if I had more support than I probably wouldn’t have gone down the path as far as I did. Um, and I probably actually wouldn’t have withdrawn if I had better social supports and if I was more honest and open to get that social support as well.

Bernard stated that the lack of social support on campus influenced them to consider withdrawing.

Well, when you go for a month or so and you don’t really know anybody, you know, you don’t have anybody to really talk to besides your teachers and family, it gets kind of boring and irritating. So I felt like that’s why I was getting ready to consider dropping out.
Amanda, who withdrew from the institution stated that she took into consideration the amount of social support she would have returning to campus when deciding whether or not she was going to continue her degree program and the same institution.

A lot of my friends at the point of me coming back had graduated the year before, or had just graduated that year, so I knew going back would be different than it had been the previous years because it would be me just focusing on classes and not really spending a lot of time on the social aspect of college.

Some participants also struggled to find social support within the college of agriculture. This is difficult because higher education professionals assume that being in a college with peers who share the same interests would help students in finding a support system.

**Struggle to find community within CALS.** Only two of the ten participants reported having prior agriculture related experiences. Six of the eight participants who did not have any prior agriculture experiences relayed that they felt unwelcomed when trying to socialize with other students within CALS. Natasha noted that it was difficult to make friends because her peers in her major viewed each other as competition; “Some of the people were very competitive.” This led her to having to dedicate more time to try and find peers whom she related to “… finding people who you mesh with well and who actually, you know, want to walk the same path as you or you know just making time for that alone is hard.” Struggling with finding a community within CALS was an influential factor in Natasha considering changing her major. “I wanted to switch my major, I wanted to do it strictly for the people in my major.” She continued, “I’d rather choose a different major, cause people in different majors, I meet them all the time, they’re inviting and warm. People [in this major] are snobby”. She also considered dropping out of the institution as a whole “I considered dropping out of college when I was in classes and I couldn’t connect with people, like I’d try to talk to people and they’d kind of I guess give me the stink-eye, kind of brushed me off.”
April echoed this statement: “I guess the people in my year just didn’t seem, all the ones I had talked to didn’t seem friendly. So I was like I don’t know if I want to even be around them.” She stated that the peers in her major were unwelcoming because unlike them, she did not have any prior agricultural experiences.

My first semester was very rough, I mean I’m sure everyone’s is, but it was very rough for me because I didn’t come from the ag background. So I just felt unsure about my place … I’m sure if, you know … they believed, you know, that I was into agriculture as them because it was a new passion and I didn’t have much knowledge there…”

This made her wish that she would have had been involved with agriculture prior to enrolling. “I wish I would have had an FFA and I just would have been in an agricultural society before coming here.” This, she believed would have helped her be included more among her peers.

A few participants reported going to club meetings and trying to meet people; however, they felt that other students were unwilling to socialize with them. Katie felt, “Most people just kind of click to whoever they previously talked to and they have no interest in talking to new people”. She added, “It happened multiple times and I was like, okay they’re not interested in me [being here] at all”. These experiences led to Katie’s perspective

I think to me, ag people in my opinion tend to be very close minded about other people, which is fine outside of college but I feel like people need to be way more open minded about talking to someone in college.

This discouraged them from attending more club meetings. Natasha added, “I didn’t really feel a part of any clubs so I stopped going”. The feeling of rejection and the lack of community within their college made it difficult for participants to want to invest more time among their peers. Jasmine revealed that being surrounded by peers that made her feel unwelcomed was a great influence in her considering to change her major.
… so I wanted to drop out of the major when I was in classes and I, I couldn’t connect with the people, like I’d talk to people and they’d kind of, uh, I guess wouldn’t give me the stink eye, but kind of brushed me off.

Not having a solid support system within CALS was difficult for participants and pushed Katie to think about withdrawing from the institution altogether. “I didn’t feel like I was where I was supposed to be and I didn’t like that feeling…I didn’t feel connect to people. I didn’t feel at home.”

Eleanor noted that the lack of diversity within CALS made it difficult for her to find a community within CALS. Eleanor attempted to find support by attending club meetings but was difficult for her. “I had to force myself to go to meetings and it was hard and I probably looked to people like I didn’t want to be there but that’s because I was struggling to be there” Unfortunately, Eleanor did not find the support from her peers in her classes or clubs on campus that she was seeking. “I wasn’t really seeing people that I could relate to in my major and I was trying to go to the club meetings but it was so weird and people were so different from me.” Being the only person of color in most of her classes, she did not find a group of peers that shared her perspective.

I wish there was more diversity in CALS because a lot of times I would think like “oh I’m the only black person in this room” whenever I would go to my ag classes and I did not like that because I felt uncomfortable sometimes because I didn’t relate to the people and sometimes I’d have professors that would make comments that didn’t make me feel comfortable being a person of color in a room full of mainly Caucasian people.

Not finding a community within the institution or within CALS left some participants with their family being their only social support. However, for some, their parents were not able to relate to their degree program or their being at college at all. This created a further lack in social support received.

**Parents unable to relate.** When struggling academically or socially, participants turned to their family for support and motivation to persist. Eleanor often called home to speak to her mother when she was having a difficult time. “My mom was supportive. I think she kind of, I don’t know
if she got tired of me like calling her a lot, but I did talk to her and can talk to my aunt as well”. Bernard also felt that his family was supportive of him. “My family is awesome, like my mama, she’ll send me a text or notes or whatever and my dad will call me a few times a week and check on me”. Two of the participants were from the area and so had their family support systems close by, one of these participants was Amanda. “My family is here [locally] so I felt like I was supported pretty well”.

Although their families were encouraging of them, participants felt it was difficult for their families to relate to their situation. Bernard and Natasha had difficulty with their parents relating to them because they were a first-generation student. Bernard stated, “…I’m a first-generation college student so I didn’t really know what to expect and it was a bit of a shock, considered dropping out within a few weeks but stuck with it”. Natasha added, “My dad doesn’t really understand college … it’s not his fault. It’s not like he did this and knows what’s going on”. Jasmine also had difficulty with her family relating to the struggles associated with obtaining a degree. “My mom attended college but it wasn’t to completion and my father never attended college and I didn’t really have family members that can give me experiences or explain to me about resources and things like that”.

Other participants had difficulties with their families relating to their college experience because they did not understand their choice to pursue agriculture. April shared, “They didn’t quite understand, um, why I chose agriculture”. April went on to say that this resulted in her family giving support for college as a whole but never specifically towards her degree program.

They couldn’t really relate to my aspect of it. So it was a kind of difficult thing where they weren’t telling me to stick with it [agriculture], they were saying quitters never win and you don’t want to quit this.
This frustrated April because she felt that no one from her family support system could relate to what she was going through with her journey through her degree program.

Sometimes, I’ll be honest, I guess nobody really, nobody in my close family and friends circle back [home] kind of understands where I’m coming from. So, um, that may, that was I guess a little challenging, um, not having anybody with the same interest back home, but, um, they, when it came down to it, they were very supportive. But, nobody could really provide much advice from my close support systems.

Katie also stated that her family, not being from an agricultural background, did not understand why she chose to pursue agriculture. Due to this, they supported her decision to pursue a four-year degree but sometimes questioned her degree choice.

… I think that when I went to study ag it freaked them out. And so they don’t know how to support me in that. I guess the support I receive from them is, like they support me because I’m their daughter, but they don’t necessarily support what I do because I don’t think they fully understand it and it scares them because it’s not typical.

The lack of support from peers within the institution and within CALS compounded with the limited support provided from their parents affected some participants’ mental health.

**Effect on mental health.** Not being able to socially integrate began to take a toll on participants’ mental health. Through her reflection Natasha shared “it’s not okay that it got so bad that I wanted to drop out…I just feel like it’s not okay. When I was going through it, it just felt like hell. It was terribly emotional”. Six of the ten participants stated that they, at some point in time, suffered from depression and that this compounded their social support by making them unable to leave their beds most days. Eleanor stated,

I guess I could say like I was getting depressed like, cause I’ve never been to a doctor like clinically depressed or clinically diagnosed as that, but like that’s how I was feeling and I was just always in my room by myself and just thinking about how like there’s all these people on this campus and I can’t like find someone to connect with.

Other participants stated that they felt that they were struggling with depression. Natasha stated that she diagnosed herself with depression “… I hadn’t been clinically depressed … clinically
diagnosed as depressed but … I felt like, I felt depressed.” She attributed her depression to feeling that she was not succeeding academically. “I couldn’t reach the mark so to speak. I just constantly felt like I was failing.” This feeling made it difficult for her to get through the day. “It was all sadness. It was all disconnection. I was just trying to get through every day.”

Jasmine also said that she went through times of depression. “I was really frazzled. I was definitely going through periods of depression and not wanting to speak to people or even go out.”

Gregory said that his depression was affecting his mood and how he reacted to his peers. “I’m going to be completely honest, I was completely not a good person to be around because I was just grumpy and depressed all the time. I think it really manifested itself in my mood and my emotional state.” The downturn in his mood also began to affect his academics. “It became a chore to get my school done.”

Katie did reach out to her family about her mental health. “I remember calling my mom incredibly depressed and being like, I don’t think I belong here.” Other participants did not mention discussing their decline in mental health with any support systems. Kristin stated that she chose not to tell her friends about her mental health struggles. “I was going through a lot of depression stuff and I didn’t really expose my friends to that. Like I wasn’t very open about it”.

The decline of their mental health, for some participants, led to suicidal thoughts. Eleanor stated, “It was getting really bad and because I was starting to have like more suicidal thoughts…” Kristin’s suicidal thoughts became so severe that she had to withdraw in order to focus on bettering her mental health. “The reason I withdrew is because I did attempt suicide and I ended up in the hospital and then at that point I did withdraw”.

The participants who felt depressed were not clinically diagnosed but did seek help from the on-campus counseling center. One of these participants was Katie, “… I had a counselor, I
used … NC State counseling system. … that helped a lot”. Some participants stopped seeking help from the counseling center however, because they felt that the wait times in between appointments was too spread out to properly meet their needs. Jasmine felt that the counseling center had a wait time that was too long for her to receive proper support.

I did try to attend counseling sessions at NC State, which the first two that I went to were really helpful … but it was hard to schedule. It’s like … they were really busy so it’s like if I wanted to schedule another meeting, it had to be three weeks in advance and I just, there’s no way for me to know, well there is a way for me to know, but it’s kind of hard to gauge how I’ll be doing in those weeks, you know, and stuff like that.

Eleanor agreed that the long wait time in between appointments was a factor in her stopping treatment.

I tried talking to a counselor at State and it, because of how long the wait time was for it. I didn’t feel like it was effective cause it’d be the up and down where I’d felt really bad one week and then I’d feel okay the next week and then one day I do really good and I didn’t have anyone to talk to about it because of waiting for a therapist to talk to…”

The struggle with mental health not only impacted students’ academics but also their want to attempt to integrate into the social systems. Along with struggling with academics and social systems, some participants had to deal with the stressors present in their external communities.

**Research Question Three**

*How did interactions from external communities contribute to the student’s decision to drop out or persist?*

Institutions cannot control external communities. These can include a student’s off campus workplace, their family, their home community, and other obligations that may pull the student’s attention away from the institution. Without proper social and academic integration, the pull of external communities will strengthen and increase in the influential power it has over a student’s decision to persist. Examples of this can be a student who is working to support themselves.
Working can take away from their academics, weakening their academic integration, and creating a stronger pull for them to dropout and focus their time towards working full-time.

**I need a degree**

Obtaining a higher education degree will not only increase an individual’s potential earnings over the course of their lifetime, but they are also more likely to positively contribute to their society (Murray, 2019). This message has been reiterated to students so much so that all participants stated that they enrolled into a four-year degree program because they needed a degree. Justin simply stated that he decided to go to college because “a lot of higher paying jobs require a degree. That was pretty much the only reason”. Eleanor echoed that she also attended college “Cause I thought I needed a degree”. Katie went to college because she was told she needed a degree. “Straight out of high school I was always told you need a college degree. It’s just a whole thing”. April also had been told that obtaining a degree was necessary “I’ve heard, well actually, you know everywhere I hear that … you know a bachelor’s degree is pretty much the standard, the bar”.

Often linked to the notion of needing a degree is the economic benefits that holding a four-year degree would provide including being eligible for higher paying positions and creating a path for upward mobility in their career. Eleanor stated that having a degree would allow her to move past a minimum wage position.

I guess the way they taught in school, I mean it seemed there was nothing you can do other than get a degree unless you want to be stuck working at a fast food restaurant for the rest of your life is kind of what they made it look like.

Other participants echoed this when asked why they chose to pursue a four-year degree. Bernard stated, “Well, I figured that having a degree would pay off better when looking for a job and I might could find a better job”. Amanda also noted that she hoped her degree would lead to better
opportunities, “… I went to college so I could … get a degree and get a better job eventually”. Gregory added, “The reason I decided to go to college really just, I felt like there was a lot of advantages I’d have going out into the workforce. Everything I wanted to do involved having a college degree to some extent”.

Gregory went on to say that while he was withdrawn from the university he looked into job opportunities but found that “everything I was looking at really needed a college degree” and “higher education is needed to get into [his field].” This realization is one of the factors that influenced him to continue his degree program. “I knew that I would never have the opportunities if another candidate had a college degree. With a college degree I would be, probably a better candidate on paper.” He added, “it would have probably been significantly harder to achieve the job opportunities that were available” and “I would’ve had little to no chance of getting a job in that area.” An example of this can be seen with Kristin, who withdrew from CALS and spent a few years in the workforce. She decided to reenroll and persist in her degree to make a better life for her family.

I make right at about $38,000 a year. That’s about $5,000 less than the starting salary for my degree. So it is a very distinct difference in pay scales. And so I’m pretty much plateaued in my career that I’m in right now, that without that degree, I’m just going to be skimming by the rest of my life and I don’t want that for my daughter. And I definitely don’t want that for me as well.

Eleanor noted that one of the reasons for persisting was the fact that obtaining her degree would give her more economic advantages over time. “It was mainly my mom [who encouraged me] because she knew that I wanted to do something with my life, not just find a job and work at the same place for years.”

Subjects relayed that the area of the degree is not important in part because the bachelor’s degree has become synonymous with a high school diploma. Meaning that the perceived bare
minimum of education required for employment in well paying positions is a four-year degree. Katie explained that she has been told over and over that a bachelor’s degree is equivalent to that of a high school diploma.

I think it’s kind of this notion that keeps getting brought to my attention that the college degree has almost become a high school diploma because so many people have it that if you don’t have a college degree, it actually sets you back almost as much as 50 years ago not having a high school diploma would have.

Participants did however reveal that they have received the message that it does not matter what area their degree specializes in, rather they just need to be a degree holder in order to access the economic advantages. Katie stated, “You need to go to college because even if it’s not for the actual thing that you’re doing, if it’s just for the fact that you can get a promotion, it’s worth it”. Gregory shared that he believed having a bachelor’s degree would make him more marketable when job searching. “I wanted to make myself a very valuable candidate in any position from now until, you know, the rest of my life”. April added that just having a degree, no matter what the area, would be valuable. “Even if it is totally irrelevant to the job it can get them so much more advantage wise and salary wise”. Justin echoed this,

Just having the knowledge and the skill set that you develop from completion, completing that degree will translate into more skills that can be applied in the work force. So it’s not just the piece of paper, it’s everything you learned in the process of obtaining it, which can be valuable.

Obtaining a degree has not just become a societal norm, but also a standard that requires individuals to pursue higher education. This is hindering because it pushes individuals into taking a step that they may not necessarily want but feel obligated to complete.

The next step. The feeling of obligation to complete a four-year degree eliminates a student considering what they wanted to do upon high school graduation. Enrolling into a four-year program was as seamless as transitioning from middle to high school. For them it was not
really a premeditated decision but rather the next rung in their educational ladder. Gregory noted that attending college was never a decision but a transition he always knew would happen. “It was never really a decision … I’d always knew that I wanted to go and I ended up here”. Kristin added, “I think I took that one for granted and just ever since preschool … it just was something I was doing”. April also stated that she never questioned whether or not she would attend college. “… so college was always something that was a possibility in my future and more, more so like a likely … choice than to go into the work industry right after [high school]”.

The constant messaging participants received from their high school faculty and staff and the plethora of resources available to help students through the application process normalized this high school to college transition. When discussing why she chose to enroll into a four-year degree program, Katie stated, “It [was] just the easier path. There’s support for it. You got people helping you with the applications. Like it’s just the path to take”. The opportunity to apply and go to college is an opportunity that although widely available to some is not available to all and this makes students feel that they have to take advantage of it. Eleanor was a participant that felt that she had to pursue higher education because the opportunity was given to her. “So I felt like I was just doing it because it’s something that I was supposed to do because everyone else who has the opportunity to do it does it. So I felt like it was like what was written for me kind of thing”.

Amanda shared that enrolling in the institution was family tradition. “I have legacy there [at NC State]. It was just kind of, you know a family thing. My parents went there. My grandparents went there”. Enrolling into a four-year institution is increasingly becoming a step that is not a coveted achievement but is an expectation. So not enrolling into a four-year program or not completing a bachelor’s degree is a taboo that shames students.
**Stigma.** A strong motivator to persist or complete their degree program was the fear of having the stigma of dropout being applied to them and the fear of disappointing their families. Jasmine stated, “I just didn’t want to give up. I didn’t want to, you know, let down my parents. I don’t want to disappoint my family”. Due to this, some participants felt that withdrawing was not an option when they were beginning to struggle. Kristin stated,

> Withdrawing never really came up as an option in my head. I was going to graduate college and go on with my career and so the side track never really occurred and when it hit, it kind of hit like a brick wall.

When the option to withdraw became a reality for participants it was something that was difficult to wrap their head around. Jasmine stated, “The idea of dropping out, having to reflect on that idea was something that I never would have imagined before coming to college”. Kristin shared that the fear of this stigma was the most influential factor in trying to persist even though she was truly struggling.

> That’s probably the biggest reason why I never thought of withdrawing until they brought it up because [I] didn’t want to be associated as a college drop out. It’s just, it never occurred to me that that would be like how I would identify myself or anything like that.

When Amanda decided to withdraw, she knew that it was only going to be a temporary break from the institution because “it was just expected that I go back and finish.” This was because everyone else in her family achieved a four-year degree and they expected her to follow suit.

> The thought of being under the scrutiny of this stigma effected April’s mental health when she became unhappy with being in college; “I was just sad because college wasn’t what I thought it was gonna be and I kind of felt really ashamed of quitting.” Kristin noted that during her time away from the institution, she felt upset by the label of dropout being applied to her.

> It’s not a good feeling because there is still a stigma to it, but I mean there’s tons of people that withdraw or take breaks, take sabbaticals, and it’s all the same thing really. No matter what you call it, it is the same thing.
Gregory, who took time away from the institution, stated that many individuals on campus did not expect him to finish his degree program. “The way it typically goes in general, a lot of people really didn’t expect me to go back to [school] because, you know, that’s pretty common. Once you leave you are pretty much gone for good”. This view, that taking a break away from the institution is synonymous with quitting on one’s degree, puts pressure on students to continue pushing through their curriculum even when they are feeling burnt out.

**Easier to stay.** Many participants said that they did investigate switching into a major within a different college in the institution or transferring to another institution as a whole but after research they felt that it was easier for them to stay where they were. Katie stated, “I think I decided to stay because in the first part it’s easier to stay”. Katie also said that staying was easier than trying to readjust to a brand-new institution halfway through her degree program.

Like I really considered switching in the middle of sophomore year, but when I looked at it I was like, it’s just complicated and it’s easier to stay unhappy where I am. If I’m going to stay unhappy, it’s easier to stay where I am and crank it out for another two and a half years than it is to switch and then hope that I can get readjusted…

This was echoed by Justin, who also felt that seeking out another institution would be more work than it was worth, despite the fact that he was unhappy with his major and his academic curriculum.

I really wasn’t having a good time. I was just looking at all the stuff I had to do, all the stuff I was going to have to do and just thinking, do I really want to do this? And the answer is of course no. But then I consider, well, what’s my alternative? I’m already on this track, switching out would be even more work. And it’s like well what would I switch to, it’s just better to stay here, stay here and ride it out.

Justin went on to add that he later considered switching institutions but again, felt that it would be more work than it was worth and in the end may even add more time to obtaining his degree.

Well I didn’t look at another school because it’s just a lot of headache and I don’t want to go and transfer, especially since, you know, this was a hard school to get into…It would have been a step back and especially with the variety of courses you guys have here. If I do, if I ended up deciding to switch into something similar, even completely different, it’s best I stay here instead of looking elsewhere.
Jasmine stated that she decided to persist in her degree program because she had already invested money into her degree and did not want that to go to waste. “… because I already … money has been put towards it and I don’t know, I just didn’t want to give up”. Deciding to withdraw would mean having to develop a plan of how they would support themselves and the lack of planning left Eleanor feeling that staying was easier. “I feel like if I had known like had a backup plan for dropping out I would have but I didn’t. So that’s why I kept going through with it…” Ultimely, Natasha noted, that they have invested time and energy into their degree program and wanted to continue because “I’ve made it this far honestly…”. Eleanor shared that it was easier to stay because leaving would mean she would not be eligible to enter her perspective career.

I’m in it too far to like, I need to finish it, and since I want to go into [that field], you either have to have a degree or work for five years, which I haven’t been able to work for five years yet. So this is my best option to do something I really really want to do, that I have been thinking about for a really long time.

For all these reasons, participants stayed in their degree programs and pushed through. This not only added to their academic stress but for some, also added to their financial stress as they had to continue working while enrolled to support themselves.

**Working.** Student’s working while enrolled can take away from their academic integration (Tinto, 1993). Working for some students is a necessity as they must support themselves through school. For Jasmine, the financial responsibility is something that they were aware of prior to enrolling. “So financial issues have always been a problem in my life. So I think about money constantly”. Jasmine’s family issues made the stress around financial security even more intense.

Also have a lot of family … issues that have risen for whatever reason … during my college years and I actually live out of state, so I have to often fly back and forth and tend to them on a pretty fixed income because I can’t work full time being in school.

Jasmine worked hard to secure institutional funding that would cover some costs over the span of four years, however, when she began to struggle academically, resulting in the failure of a class,
she worried because she would have to extend her expected graduation date in order to be able to retake courses that she failed. “My financial aid only covers eight semesters, like consecutively. So my fear was that if I graduate a semester or year late, I’m going to have to cover that myself. Like I’m not going to have any financial help.” This made Jasmine even more anxious about graduation and increased her questioning of withdrawing from her degree program. “So I would be really, I felt, I felt at one point I’d go, I would never graduate if I didn’t graduate on time because I wouldn’t be able to pay for it.”

Eleanor was able to secure federal loans that covered the costs of tuition but chose to work part time while enrolled in preparation to pay off these loans upon graduation.

I wasn’t really consistently paying but I have been saving up money because of the loans I have accumulating so that’s why I was working. So I would have money to, whenever I graduate, I’ll have money to pay like right away”.

For two participants, the weight of this financial responsibility unexpectedly fell on them. Natasha stated, “… so my father initially told me he would pay for all of my college, so I did work at the school … but it was maybe 10-15 hours a week … it quickly increased when he stopped paying the tuition”. Adding to her stress, Natasha’s parent was also unable to financially care for her younger sibling which meant that she also worked to aid in supporting his needs as well. “…[I] take care of my, my brother who, he lives with my father, but … he’s not getting the best financial care, so I try to take care of him as well.” This stress began to take a toll on Natasha’s health. “I wasn’t really sleeping at the time because you can’t sleep when you work full time and you go to school full time and you know, you have all these different responsibilities.”

Gregory’s father, who was helping with paying for his tuition, began to receive pay cuts at work and their family was struggling financially. “When he received his first paycheck cut, it was like, okay maybe it would be a good idea to put school on the back burner and just focus on
myself.” Gregory had an internship over the summer to earn money to support himself and his education. The pull of being financially independent ultimately called him away from his studies and influenced him to take a break from school in order to work full-time. “I liked working a lot, like, I like supporting myself and everything. I liked making money, and you know, the money and being able to support myself financially.” The strength of these external communities can shift a student’s focus away from the institution. Once this happens, students’ commitment to the institution weakens and they are more likely to choose to withdraw.

**Post Epoche**

At the beginning of this journey I did not know much about student retention. I had seen friends throughout my undergraduate career leave campus but after they left, we never kept in touch. I often wondered how or why people chose to drop out. I personally never saw dropping out as an option because I didn’t want to disappoint my family. I needed to obtain my degree. Going through this process has made me realize that the feelings over overwhelm and societal pressure during my undergraduate career were feelings felt by others.

The most challenging aspect of conducting this study was to refrain from sharing my own experiences with participants and interjecting with the resources I found helpful during similar situations. This was difficult because I wanted to comfort participants, let them know that they their feelings were valid, and ensure that they were not the only ones who had those same emotions.

I was concerned that participants would be uncomfortable talking about their most difficult experiences while enrolled but I was surprised. Once I asked questions about varying aspects of being enrolled participants opened up and were honest with how they felt going
through these experiences. They were descriptive in recalling exact moments they felt alone or a sense of not belonging.

As I asked questions during interviews I found myself trying to put their feelings into boxes. Figuring out how they fit into the themes I assumed would emerge. However, the more I got to know the participants and listen to their stories I realized that their experiences were tangled together. Feelings that emerged from one experience could be linked back to a previous experience they had where the seed was planted. No two participants view their goal of getting a degree and their consideration of dropping out in the same way.

This journey the past two and a half years has really made me appreciate the strong support systems I have both on and off campus. Each time I had an interview where a participant noted how they felt unsupported by their family I immediately reached out to my family to thank them. Not just for encouraging me to continue with my degree when things were hard, but for really being there for me. I had a support system that was willing to read over essays, listen to presentation practices, fly up and spend the weekend with me when I was feeling homesick. Without this support I believe that I would considered dropping out more strongly, just as my participants had.

By the third interview I felt close to the participants having truly understood all the experiences that have shaped their undergraduate careers. I am glad that they felt comfortable enough to share their hardships and emotions with me. Hearing how just one brief experience with a faculty or staff member shaped the rest of their experiences on campus made me realize how important it is for anyone working with students on campus to take these interpersonal relationships.
I have realized that working in a university setting there is no way to ensure that every student has a stellar experience. However, taking the time to see students as individuals that have a whole community external to the institution is important. Checking on students to see if everything is going okay back home and reaching out when we notice they are pulling away from campus can be the difference between them leaving and staying.

This is also important in our personal relationships as well. This study has opened my eyes to how easily we all fall into our roles: student, daughter, employee, etc, and how we often don’t recognize that people are people outside of these roles. Our parents and significant others’ sole purpose is not to provide emotional support and companionship. They exist outside of these roles and it is important to check in and see how they are doing in the other roles they play in their own lives.

**Chapter Summary**

The decision to dropout did not come to these participants overnight. It was the culmination of experiences that occurred and how participants interpreted these experiences that contributed to their decision to consider withdrawing. All of the factors that contributed to this decision were not blatantly apparent until participants were asked to intently reflect on them. Kristin summed this up best when she stated,

Looking back, it seems like it was almost overnight where everything went from all hunky dory to just boom done. I’m sure at the time it was not an overnight thing. It was a gradual buildup. I probably should have noticed but I really just didn’t.

The following themes emerged from this phenomenological study of students who have seriously considered withdrawing from their degree program: “I need a degree,” the next step, choosing agriculture, difficulty with academic integration, comparison to peers, struggling with academic rigor, uncertainty of career goals, difficulty with social integration, struggling to find
community within institution, struggling to find community within CALS, effect on mental health, external communities, parents unable to relate, faculty struggles, working, reasons for persistence, faculty, and easier to stay. I found that there is a strong societal pressure for individuals to obtain a four-year degree whether or not they want to enter a career that requires one. This pressure forced individuals to enroll in their degree program where they subsequently struggled with finding ample social support. The lack of social support made many participants feel alone and led to a decline in their mental health. Three of the ten participants in this study did withdraw from their degree program but all the participants are currently working towards completing their degree program. The participants noted that their investment of time, energy, and finances, and the support from their departmental faculty were the main reasons why they chose to persist.
CHAPTER FIVE

Conclusions, Implications, and Recommendations

The purpose of this study was to understand the factors that influence student drop out in colleges of agriculture. Using phenomenological methodology, the study explored the experiences of students who matriculated into the College of Agriculture and Life Sciences at North Carolina State University and have seriously considered withdrawing, or have withdrawn, but are currently working to complete their degree programs. In order to accomplish the purpose of this study, three research questions were created.

1. How did experiences within the individual’s formal and informal academic systems lead to considering dropout?

2. How did experiences within the individual’s formal and informal social systems lead to considering dropout?

3. How did experiences within the individuals external communities lead to considering dropout?

Summary of Conceptual Framework

The completion of a four-year degree allows individuals to access prestigious positions within society that, without this achievement, would have been measurably more difficult (Tinto 1993). This is due to their ability to earn up to 86% more over the course of their lifetime than those who only hold a high school diploma (Bureau of Labor Statistics, 2018). Individuals holding a four-year degree are also less likely to be unemployed than those who do not have the same educational credentials. For these and other unquantifiable reasons, many individuals chose to pursue higher education.
Based on the results it is clear that individuals believe that they need a four year degree and are enrolling into four-year institutions. Although enrollment has remained steady, there continues to be an issue with retention of these students. When looking at four-year institutions, retention is the reflection of an institution’s ability to keep a student from the point of admission through graduation (Demetriou & Schmitz-Sciborski, 2011). A student dropping out or withdrawing from an institution can be attributed to their transferring to another institution, being dismissed by the institution, or voluntarily deciding to no longer pursue their degree. Only 59% of students who begin their academic career at a four-year institution complete their degree within 150% of normal time, or six years (NCES, 2017b).

When a student decides to withdraw from their institution, they lose more than the degree they were hoping to attain. Participants noted that not finishing their degree program would result in the loss of the money, time, and energy that they already invested in working towards their degree as well as the potential earnings they would have acquired over the course of their lifetime. Some noted that if they chose to transfer to another institution they could risk not having all of their credits transfer meaning they would add more time towards obtaining their degree. The student is not the only one at a loss when it comes to drop out. When a student chooses to withdraw from an institution, the institution loses the money it has invested in the student, in the form of financial aid, as well as the invested resources of the time and energy faculty and staff put towards that student (Savage et al., 2017).

The issue of student retention has received much attention over the past 40 years; however, there are still substantial gains to be made. This is largely because many institutions are not willing to commit the resources needed to address the deeper structural issues that shape student experiences and ultimately influence their persistence (Tinto, 2006). Most institutions rely on
research that claims student success can be based on pre-attribute predictors such as standardized test scores and high school grade point average (Garton et al., 2001). However, these pre-entry attributes cannot predict the experiences a student will have once enrolled in an institution and, more importantly, cannot predict how the student will shape their reality based on their experiences. All of the participants in the study were accepted into the institution meaning that they had these pre-entry attributes that should have predicted their retention. However, all of them seriously considered dropping out and three did. This is not because they were not intelligent enough to complete their course work but rather because of the experiences they had while enrolled and an overwhelming lack of social support. A student who is not well socially integrated into the institution and who feels isolated or socially alienated from their peers will construct their decision to persist or withdraw from the institution based on these negative experiences (Kirby, 2015). Most models focusing on student retention state that the quality of a student’s institutional experiences including their integration into the academic and social systems are vital to that student’s decision to persist (Aljohani, 2016).

The lack of student retention does not only affect students and the institutions they withdraw from, it also affects the industries that rely on these institutions to provide career-ready graduates to fill their open positions (McCallister et al., 2005). One industry that is undoubtedly feeling the effects is the agricultural industry. With the growing population, there is an increasing demand for qualified professionals (USDA Press Release, 2015). The lack of supply of graduates has resulted in an annual deficit of about 23,000 unoccupied jobs (2015).

Most students who wish to pursue an agricultural career enroll in a degree program within a college of agriculture. Although undergraduate enrollment has increased, enrollment in colleges of agriculture has been on a steady decline as the population moves further away from production
agriculture (Shrestha et al., 2011). To remedy this there has been research conducted to increase enrollment by exploring more efficient recruitment practices. Most of these studies state that a student is more likely to enroll in a college of agriculture if they have an individual in their life who is involved directly with the agriculture industry (Dyer et al., 2002; Shrestha et al., 2011; Smith-Hollins et al., 2015; Wildman & Torres, 2001). This can be seen with the demographic of the participants. Only three out of the ten participants stated having prior agricultural experiences, yet all ten decided to pursue a degree, and career, in agriculture. Because most of the population is no longer involved in production agriculture, finding students with direct experience with agriculture is becoming more difficult. As the agricultural industry continues to expand its needs for biotechnology and innovation there is a greater interest to enter the industry by students who do not have prior agricultural experience, commonly deemed “non-traditional” students (Smith-Hollins et al., 2015). Recruitment efforts, however, do not reflect the need to lure non-traditional students into their programs because there is a fear that this will create a “brain-drain” within the agricultural industry following the thought that appealing to non-traditional students will effectively alienate traditional students (Dyer et al., 2002). Most retention work done on this area focuses on the recruitment of students with prior agricultural experiences because they are believed to be more successful in completing their degree programs.

**Summary of Contextual Framework**

The context of this study includes the following areas: land-grant institutions, colleges of agriculture, and the College of Agriculture and Life Sciences at NC State University. Historically, colleges of agriculture are housed within Land-Grant Universities. These institutions were first established by the 1862 Morrill Act which stated that there was a need to educate the common people on agriculture and the mechanical arts (APLU, n.d). In accordance
with the legislation, 30,000 acres of federal land was given to each eligible state and the profits from the sale of this land were to be used to establish a public institution that was to teach the act’s provisions. Today, in 2019, there is a minimum of one land-grant university in each state and U.S. territory totaling 176 institutions. One of these institutions is North Carolina State University. The College of Agriculture and Life Sciences, CALS, offers 19 undergraduate degree programs. As of fall 2018, there were 2,538 students enrolled in a four year program within CALS. The current four-year retention rate for CALS is 84.7%.

Summary of Theoretical Framework

This study was framed by Tinto’s (1993) Model of Student Departure which explores factors that influence a student’s decision to persist. Tinto’s Model of Institutional Departure (1975, 1993) has been widely cited to explain the various factors that are involved in a student’s intention to withdraw from an institution. The three factors specifically observed in this study are academic integration, social integration, and external communities (Tinto, 1993). The academic system, according to Tinto’s model, focuses on the formal education of students and the experiences that occur within the classroom setting. The emerged themes that fall under the academic system are: comparison to peers, struggle with academic rigor, uncertainty of career goals, and faculty interactions. The social system of the model revolves around the daily life experiences of the student while enrolled at the institution. The themes that emerged within the social system include: struggle to find community within the institution, struggle to find community within CALS, parents unable to relate, and effect on mental health. Positive integration into the academic and social systems can strengthen a student’s commitment to the institution and their dedication to persisting in their degree program. Alternatively, poor integration into these systems can weaken a student’s commitment to the institution and influence their decision to
withdraw from their degree program. Poor integration can occur when students are struggling academically, unable to find social support or community within the institution or have a strong pull from external communities that require them to shift focus away from the institution.

Higher education institutions do not exist in a vacuum and so students do not only experience interactions within the academic and social systems but also from communities external to the institution. This external communities variable within Tinto’s (1993) model encompasses any factors such as family, peers not enrolled in the institution, work, and any other communities that contain their own set of values and behavioral requirements and may pull a student’s attention away from campus. This can be seen with participants who did not feel that they had social support on campus and so their external community, family, was a factor that they felt was pulling them away from campus. When a student has to dedicate more time working or helping out family, it takes away the amount of time spent on campus which can weaken their social systems. In addition, focusing more time on external communities can inhibit their academic performance, which can also influence their decision to withdraw from the institution.

**Summary of Salient Literature**

Tinto (2003) conducted a broad study that observed first time beginning students’ journeys through college. He followed the students from 1999-2001 using the Beginning Postsecondary Student Longitudinal Survey. At the beginning of the study, 46 percent of the students were initially enrolled in a two-year college, 26 percent enrolled at a four-year institution, and the rest enrolled in private institutions. Once 150 percent of normal time had passed, six years, 29 percent of the students earned a bachelor’s degree, 10 percent earned an associate’s degree, and 10 percent earned certificates. Tinto concluded that persistence is primarily an institutional event, meaning
that it occurs within the institution based on the interactions that the student has while they are enrolled.

Bean and Eaton (2001) stated in their study that an individual’s participation in higher education is voluntarily and is based on their decisions to remain or withdraw from the institution. They developed a model that assumes that a student enters an institution with psychological attributes and that these attributes are shaped by the individual’s experiences, abilities, and self-efficacy assessment. Based on this, the researchers found that the most effective retention programs were those that implemented service-learning, learning communities, freshman orientation seminars, and mentoring programs. All of these programs provided an informal social environment in which students have a structured setting to interact with their peers and faculty. The strengthening of these relationships will give students a sense of autonomy over their own outcomes and allow them to further develop coping skill and motivation towards their academics.

In order to understand the relationships between pre-entry attributes, academic engagement, and social engagement, Natoli, Jackling, and Siddique (2015) conducted a qualitative study using Tinto’s Model of Student Departure. The main themes that arose from the interviews conducted were teaching quality, interaction with staff and peers, assessment, administrative support, and interactions with clubs and societies. They found that pre-entry attributes were an important influence on an individual’s intention to withdraw from an institution; however, it was not clear whether the social and academic experiences were substantial influences as well. All of the participants met the requirement for pre-entry attributes, as seen by their acceptance into the institution and yet all ten still, at some point, seriously considered withdrawing from the institution. It is clear that these pre-entry attributes cannot predict a student’s intention to persist as it only gives information on the students’ academic past.
Much of the research on recruitment and retention in colleges of agriculture suggests that in order to improve retention rates, recruitment practices should be tailored to targeting students who have prior agricultural experiences as these students are more likely to persist (Cole & Fanno, 1999; Duncan et al., 2015; Dyer et al., 2002; Swan & De Lay, 2014). In order to widen the pool of prospective students with prior agricultural experiences, Duncan et al. (2015) stated that 4-H and FFA advisors should do more to recruit students into their programs. They also suggested that students or areas that focus on these experiences should be given priority when it comes to scheduling recruitment events. Similarly, Swan & DeLay (2014) suggested that colleges of agriculture should invest in increasing interactions with 4-H agents and volunteers and secondary agricultural instructors in an effort to recruit more students directly from these programs into agriculture related programs. One of the reasons behind this thought process is that faculty in colleges of agriculture are reporting that they are becoming increasingly frustrated with students entering their programs with, what they deem to be, lessened skill sets and limited agricultural experiences. This viewpoint creates an environment that is unwelcoming to non-traditional students and ultimately sets them up at a deficit compared to their traditional peers.

Rayfield et al. (2013) stated that focusing on recruiting students with prior agricultural experiences is not an efficient method for two main reasons. The first reason is that as our society becomes further removed from production agriculture, finding this population will continue to decrease and this will limit college’s potential for growth. The second reason, based on the result of their study, is that prior agricultural experiences do not appear to be a significant influence in a students’ decision to enroll into a college of agriculture. In addition, this study found that in person recruitment events such as representative visitations were not as influential in choosing to enroll
in an agricultural related major but rather students are more likely to utilize the internet as a recruitment tool.

Foreman, Retallick, & Smalley (2018) also found that prior agricultural experiences were not a significant influence on a student’s decision to enroll in a college of agriculture. In their study, they found that less than half of the first year student’s surveyed reported being involved in FFA or 4-H. Due to this, they suggested that there is a need to move away from the one-size fits all practices that are being conducted, focusing on those with prior agricultural experiences. They believe that in altering recruitment practices there will be a much needed shift in colleges of agriculture that allows for the development of an inclusive college environment and curriculum.

To further support the lack of influence participation in prior agricultural experiences has on enrollment decisions, a study was conducted with 10 participants who had never participated in FFA or 4-H and whose families were not at all involved with production agriculture (Setterboro et al. 2017). These students reported that they chose to enroll in a college of agriculture based on the variety of degrees offered, opportunities to interact with faculty and staff on a personal level, and institutional characteristics. The researchers noted that since these students looked forward to developing relationships with faculty and staff it is important for faculty and staff to create a welcoming environment and be prepared to provide guidance and support to aid these students in navigating career pathways.

Negative experiences with faculty and staff can influence a student’s decision to withdraw from the institution (Martin & Wesolowski, 2018). In their study Martin and Wesolowski found that non-traditional students felt that their faculty members assumed them to have certain base knowledge of agriculture, which made it difficult for them to keep with curriculum. Students’ also
stated that faculty members were hesitant to provide guidance on career paths that included non-traditional fields within the agricultural industry.

**Summary of Methodology**

To gain a deeper understanding of the experiences of students who seriously considered withdrawing from their agriculture related degree program, this study utilized a qualitative approach. Phenomenology is a descriptive type of qualitative study that focuses on human experiences (Wetz et al., 2011). The goal of phenomenological studies is to conceptualize the process and structures of life and how individuals make meaning out of the experiences they live through. The goal of this research was to understand the lived experiences of students who seriously considered dropping out. Thus, the use of a phenomenological study allowed for the purest collection of data.

There were three research questions guiding this study: how did the experiences within the individual’s formal and informal academic system lead to their decision to drop out or persist, how did the experiences within the individual’s formal and informal social system lead to their decision to drop out or persist, how did interactions from external communities contribute to the student’s decision to drop out or persist?

The population for this study was 10 students who matriculated into the College of Agriculture and Life Sciences (CALS) at North Carolina State University. All of the participants at some point in their academic career seriously considered dropping out. Three of the participants did withdraw from the institution, two of these participants returned and are continuing their degree program within CALS. One participant is continuing their degree program at another institution.

The research was conducted using three rounds of one-on-one interviews with each participant. Each session lasted no longer than one hour. All interviews were audio recorded and
transcribed using an online service, Rev.com, and read over for accuracy by the researcher. Completed transcriptions and preliminary findings were sent to participants for member-checking (Merriam & Tisdell, 2016). The data were read and analyzed using the whole-part-whole method (Vagle, 2014).

Qualitative research is based on assumptions about different world views and reality that are congruent with the philosophical assumptions underlying the paradigm being studied (Merriam & Tisdell, 2016). Due to this it is the researchers’ responsibility to ensure that the study has been conducted and disseminated in an ethical manner (2016). To achieve this goal the researcher utilized member-checking to enhance the credibility of the study (2016).

Epoché is the method of identifying one’s own personal experiences and biases prior to conducting research (Merriam & Tisdell, 2016). When conducting phenomenological research it is important for the researcher to be aware of their own past experiences and knowledge of the situation being studied or discussed (Vagle, 2014). For this study the researcher explored her own experiences as an undergraduate student in CALS and how the meaning attributed to these experiences shaped her decision to persist.

**Summary of Key Findings and Conclusions for each Research Question**

The key findings are presented with the conclusions and implications for each research question.

**Research Question One**

It is vital for students to be integrated into the academic system in order for them to persist. Doing well academically and also having positive interactions with faculty and staff can aid in a student’s decision to persist. More than half of the participants relayed that they had positive interactions with faculty and that these interactions were a strong influence in their decision to persist.
persist within their degree programs. Those who had negative interactions with faculty did note
that this pushed them toward their consideration to withdraw. Kristin stated that if she had gotten
the support that she received from her second advisor at the start of her academic career “I probably
would have done things a little differently”.

Two participants reported that they began to struggle academically because the curriculum
of their degree program assumed a base knowledge that they did not possess since they had no
prior agricultural experiences. This base knowledge includes an understanding of the agricultural
industry and its sectors as well as a basic understanding of what duties each sector performs. Not
having this knowledge made participants feel inferior in their knowledge compared to their
classmates. April noted “everybody else in the class kind of knew everything… It made me feel a
little more stupid cause I didn’t have an ag background, so that made it tough”. One participant
explained that he would make note of topics to research on his own so that he would have a better
understanding of topics discussed in class. Once they began to struggle academically, it was harder
for them to see their end goal and so their motivation, or intention to persist, dwindled. They
reached out to their faculty members for guidance in finding a degree program that fit and to
rekindle their original passion for their current degree program.

It is clear that students are, for the most part, not having difficulties integrating into the
academic system because they are not performing well academically. They are having troubles
integrating because they are in an academic system that is set up to put them behind. This can be
seen with students who do not have prior agricultural experiences struggling with curriculum that
assumes they hold knowledge about agricultural topics. This is also seen with the common practice
of comparing themselves to their peers, not only compelling them to doubt their academic
performance but also inflicting self-doubt on the level of passion they have towards their major

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and career paths. All of this self-doubt leaves students feeling that they do not belong within the institution and can heavily influence their decision to withdraw.

Tinto (2006) stated that the quality of faculty interactions is vital to an institution’s efforts in student retention. Interactions with faculty was the most influential factor that participants noted in their decision to persist in their degree program. Participants noted that interactions with faculty surrounding their questions of career paths was key to their persistence, supporting Martin and Wesolowski’s (2018) argument that faculty must be open to guiding students no matter their intended career goals. Faculty also played an important role when students approached them to discuss their consideration of dropping out. Being able to have an open conversation with faculty about their intentions and receiving guidance on their career pathways aided in influencing students’ decision to persist.

The quality of engagement from faculty outside of the classroom is vital to an institution’s retention efforts. A student’s positive interactions with faculty is likely to make them feel supported and motivate them to persist in their degree program. Likewise, negative interactions will make students feel unsupported and question whether they belong within that institution, increasing their likelihood of dropping out. Having engaged faculty that can amply support and provide career guidance to students who are filled with self-doubt and questioning whether or not they belong can be the difference between that student leaving or staying.

**Research Question Two**

Even with proper integration into the academic system if a students is not well integrated into the social system of the institution they are still likely to withdraw. Being socially integrated allows students to feel in charge of their own outcomes and aids in the development of coping skills that can be employed when they are struggling with their academics (Bean & Eaton, 2001).
All ten of the participants expected that similarly to their previous educational experiences, they would have a strong social support system made up of their peers when they enrolled into their degree program. For seven of the participants this was not a reality. These participants struggled to find peers who they could call friends within their residence halls and campus organizations. They hoped that it would be easier to find these support systems within CALS, but this also proved difficult. Participants stated that most of their peers within the college felt cold and unwelcoming. This discouraged participants from returning to club meetings and they began to isolate themselves. Not having social support led some participants to seek additional support from their family. The unwelcoming environment within CALS is a result of the culture of the college that is upheld by faculty and staff. Once students recognize that there is an academic advantage to having prior agricultural experiences and/or that faculty and staff prefer these students, they will self-segregate along the same lines of traditional and non-traditional students, with the traditional students receiving more institutional resources, such as faculty time and energy.

Students who were not previously enrolled in agriculture and those who were first generation students noted that although they did receive support from their families to persist in their degree programs, they felt that the support given was very generic in nature. First-generation students struggled with figuring out what resources to tap into on campus because their families where unable to share experiences or advice since they did not have any college experience. Students who were seeking motivation from their families to persist in their degree program or when they were struggling with their major coursework found that they had to repeatedly explain agricultural concepts to their family. When participants questioned whether they wanted to persist, their families questioned why they chose to pursue agriculture and told them that they could switch into a different industry if they wished but just needed to complete a four-year degree. This lack
of specified support needs to be bridged with support from faculty that can not only reinforce persistence towards a bachelor’s degree but also encourage the persistence to complete an agriculture related degree. Calling for an increase in faculty engagement will lead to an increase in student retention (Natoli, Jackling, & Siddique, 2015).

The deficient amount of support from their peers and family led to the decline of many participants’ mental health. Several participants self-diagnosed themselves with depression. Some reported that they struggled to get out of bed and do any activities beyond going to class and feeding themselves for the day. Participants secluded themselves from their peers, struggled to complete their coursework, and felt that their depression affected their reactions toward others. A few participants sought help from the counseling center on campus, but the wait in between appointments was so long that they eventually gave up on their effort and had to find resources off campus to treat their fading mental health. The NC State Counseling Center had a 12 percent increase in the number of individual session they provided from 2015-2016 to 2016-2017 equaling a total of 35,457 individual sessions offered 2016-2017(DASA, 2017). Anxiety, stress, and depression were the top concerns reported that led students to utilizing the counseling center (DASA, 2017). Having more counseling/mental health service resources on campus, lessening the wait time, would allow more students to access these services multiple times.

Participants noted that they felt unwelcomed when visiting with organizations that were within the college of agriculture and life sciences. Counseling services should be provided within colleges of agriculture that can tailor their services to students that are struggling to find community within their college. Putting the services into this context will allow providers to better understand the social environment that exists therefore allowing them to have a better understanding
of the types of situations students may be facing, particularly those that do not come from an agriculture background.

**Research Question Three**

All of the participants stated that they enrolled in college because they “needed” a degree. The notion of needing a degree to make more money, have better job prospects, and be more competitive when applying for jobs were all narratives they heard throughout their lives. They were told that in order to succeed they needed to obtain a four-year degree. These are all benefits that Murray (2009) lists on can obtain through achieving a bachelor’s degree. The fear of the stigma attributed to not obtaining a degree influenced some of them to persist for the sake of not facing the label of being a college dropout. This societal pressure pushed them into enrolling in a four-year degree program whether or not they truly felt that it was the right decision for them. Some did not even consider whether they wanted to go to college, they just knew that they had to as their next step in life. It is probable that not all ten participants were destined to obtain a degree or even wanted one in the first place, but they felt they had no choice. Presenting higher education as the only option following high school forces individuals to subject themselves to a rigorous and stressful environment that results in the deterioration of their mental health. It is important that high schools show student more than one option after graduation and stop telling them that the lack of obtaining a degree will lead to economic peril.

While enrolled, a few of the participants had to work to support themselves and the cost of their education. Working was necessary in order to pursue their education and because of this, it often took precedent over dedicating that time towards studying. This weakened the participant’s commitment to the institution by decreasing their ability to perform well academically. When they began to see that they were not doing well academically, the draw towards continuing to work and
increasing to working full time became more attractive because they got a taste of financial independence and proved to them that they would be able to support themselves without holding a degree. Though working full time may take away from their studies this does not mean that students who withdraw due to financial issues have no intention to complete their degrees. In fact when a student invests their own money into their education they are more likely to complete their degree program (Olbrecht et al., 2016). Students force themselves to continue juggling working full time and being enrolled full time because they do not want to be labeled as a college dropout but this is not sustainable. Students should not have to burn themselves out trying to financially support themselves and complete all of the coursework simultaneously. If students need to take time away from school to work full time and save money to pay for their education there needs to be a system in place for them to receive guidance on not only how to withdraw but also the steps that they need to take to re-enroll once they are ready to return.

Recommendations

This study provided insight into the lived experiences of students who seriously considered dropping out and are currently completing their degree. Based on the findings, I provide suggestions for both further research and future practices.

Further Research Suggestions

1. Since this study was limited to one land-grant university in North Carolina, it is suggested that in additional studies with students from other land-grant institutions in other states should be studied to increase the understanding of their lived experiences.

2. This study was limited by time and resources, so it is suggested that more students be involved in the study to create a broader understanding of resources.
3. Since this study focuses on students who continued their degree program, it is suggested that additional studies include individuals who began their degree program, withdrew, and did not return to complete their degree program to understand the lived experience of those who completely dropped out from colleges.

4. The relationship between students and faculty should be studied to determine the guidance the students who are considering withdrawing are seeking from their faculty.

Suggestions for Practice

1. The culture of colleges of agriculture of treating students with and without prior agricultural experience differently, must be addressed realistically to prevent student discrimination based on prior agricultural experience. The curriculum should not be based on assuming a pre-existing knowledge or assuming that students have prior agricultural experiences.

2. Changing the culture in student organizations is important. Faculty not “othering” non-traditional students and focusing their teaching efforts on highlighting how individual’s varied experiences bring value to the industry. This will trickle down to students and thusly put an end to the self-segregation traditional students’ conduct in relation to non-traditional students.

3. In further effort to change the culture within colleges of agriculture recruitment events should be open to all students and not specifically targeted to prospective students with previous agricultural experiences such as high school ag classes, FFA experience, or 4-H meetings.

4. Educate potential students about career opportunities. Showcasing the various career opportunities that degree programs within colleges of agriculture can lead to, rather than
assuming prospective students already have this knowledge, may increase interest in recruitment information and can potentially increase enrollment of students with diverse backgrounds.

5. A check-in with students 25 percent into the semester should be sent out to students in order for students to self-report if they are seriously considering dropping out. Those who are, should meet with college staff and faculty to discuss the factors that led them to that decision and aid students in planning their future, whether it be transferring to another institution, taking a break from the current institution, or permanently leaving altogether.

6. Offer students the opportunity to have a peer-mentor provided to them beyond their first year. These can be undergraduates who are further along in their degree programs or graduate students. Having a peer-mentor that a student who is familiar with their degree program and can provide comfort to the arising uncertainties surrounding career goals can aid in the retention of students. This can also contribute to help those students who may be struggling with their mental health, to feel that they have a social support system within the college to discuss their concerns.

7. Development opportunities should be provided for advisors to learn how to appropriately support their students. This should include how to provide students with guidance on career paths, even those that may take them away from their department. It should also include guidance on how to discuss the intention to withdraw with students being sure to provide students with direction on alternatives (e.g. trade schools, transferring to another institution, etc.) and steps to take to re-enroll if they chose to persist later on.

8. A transition plan should be developed that helps students who are re-enrolling in their degree program to re-integrate in both the academic and social systems
9. Increase the amount of resources for the counseling center on campus so students are not deterred from utilizing the services based on long wait times.

10. Introduce counseling services within colleges of agriculture giving students tailored help with the issues they may be facing based on their classes or peers within in the college.
References


United States Department of Agriculture. (n.d.). Employment opportunities for college


Whitaker, A.V. (2018). The Lived Experience of Female Cattle Producers


APPENDIX A: INTERVIEW PROTOCOL

Introduction:

Thank you, [name] for taking the time to talk with me today. I really appreciate it.

In interviewing you, I would like to learn more about your experiences at NC State. There will be three rounds of interviews, each one should take no more than an hour. I would like to emphasize that I am interested in hearing about your experiences, as much as you are comfortable with sharing. Please refrain from mentioning third parties by their name during out discussions.

I sent you a consent form outlining your rights as an interviewee for our interview today. Just to clarify [go over consent form]. Is there anything else I can clarify for you?

During the interview, I will be writing notes. These notes will be used as a way to remember points that I can follow up with you about later in the interview, so I apologize for any delay. I will also ask questions to guide our discussion, but I am very interested in what you have to say.

Do you have any questions?

Let’s begin recording!

Interview Questions

- Interview 1-Focused Initial Experiences at NC State: This interview will be focused on putting the student experiences into context. The researcher wants to understand how they feel towards their overall experience of being enrolled at NC State.
  - Why did you decide to enroll in a college of agriculture?
Why did you decide to enroll in this college of agriculture?

Describe what your first semester was like.

How did you feel about your coursework in your major? External to your major?

Describe the ways in which you interacted with faculty. Ex. in class, office hours, academic advising.

Tell me how you would evaluate your academic performance? Ex. Class attendance, attending tutoring, study groups, office hours, studying on your own.

Describe how you felt transitioning from high school to college. (Being away from home/parents/friends, lived on campus or commuted?, relationships with roommates)

How did you spend your free time? (work, campus activities, going home, social outings)

Describe any kind of support you received from your family and friends. Ex. Emotional, financial.

Were there any responsibilities that you felt took time away from your studies?

When did you first seriously consider dropping out?

Tell me how you arrived at your decision to drop out. (Describe feelings at the time, describe your mental state, describe your process)

Did you discuss the decision to drop out with anyone? Ex. Parents, friends, counselors

Why did you ultimately decide to persist to graduation rather than dropping out?

Now that some time has passed since your decision, can you describe how you feel about that time in your life?
• Interview 2- Details of Experience: This interview will be focused toward gaining details on what support systems and external communities were factors in creating their decision to consider withdrawing.
  o What did you expect coming to NC State would be like? (How you would spend your free time, how you would study, and what resources would you seek?)
  o How would you describe your interaction with your peers? (In classes, roommates/suitemates, in organizations)
  o Overall, describe the social support that you received during your time at NC State (Family, Other)
  o Is there any additional support you wish you would have had?
  o How do you think your social support systems influenced your decision to consider dropping out?
  o How do you think your social support systems influenced your decision to persist?
  o Looking back, are there any resources you feel that you should have reached out to when considering withdrawing?
  o Are there any resources you wish had been available to you during this time?

• Interview 3-Reflection of Support: This session will be geared towards examining how and why they decided to withdraw from the institution.
  o Why did you decide to go to college?
- You said that one of the reasons you wanted to continue your degree program is because you needed a degree. Can you elaborate on this?
- Did you transfer any credits into NC State? If so what classification were you when you first enrolled? (Freshman, Sophomore, Junior, Senior?)
- Please sum up why you considered dropping out
- Can you describe any feelings or thoughts that you have had towards that time in your life during this reflection process?
- What advice would you give to yourself during that time?
- Is there anything you think CALS should do for students who are dropping out or you wish they would have done?
APPENDIX B: EMAIL TO PROSPECTIVE INTERVIEWEES

Current Students:

We are looking for students who are currently enrolled in the College of Agriculture and Life Sciences and have seriously considered withdrawing or “dropping out” but instead decided to continue to graduation that are willing to participate in a research study. This study is being done to understand factors related to student retention in colleges of agriculture. There is a gap in the research literature on student retention in colleges of agriculture. We would like to interview current students about their experiences in colleges of agriculture in North Carolina. Three face to face interviews will be conducted. The hope is that the research will provide opportunities to create positive educational environments where all students can be academically successful.

If you are interested in participating, please review the attached consent form and then contact Megan V. Codallo, NCSU Masters Student in the Agricultural and Human Sciences Department at mvcodall@ncsu.edu.
APPENDIX C: INFORMED CONSENT FORM

North Carolina State University
INFORMED CONSENT FORM for RESEARCH
Factors that influence university student retention and drop out in colleges of agriculture
Megan V. Codallo and Dr. Jacklyn Bruce

What are some general things you should know about research studies?
You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate and to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. We will do this through three face to face interviews. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. If you would like, a copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above or the NC State IRB office (contact information is noted below).

What is the purpose of this study?
This study is being done to understand factors related to student retention in colleges of agriculture. There is a gap in research literature on student retention in colleges of agriculture. We will interview former students about their experiences in their college of agriculture. The hope is that the research will provide opportunities to create positive educational environments where all students can be academically successful.

What will happen if you take part in the study?
If you agree to participate in this study, you will contact the primary researcher, set up a time and location to be interviewed, and participate in a series of three (3) recorded interviews (which will last approximately 1 hour each) with the principal investigator to share your perspective as a former college of agriculture student. Areas of questioning will include: academic performance, social experiences, and support systems.

Risks and benefits
There are minimal risks associated with participation in this research. There are no direct benefits to your participation in the research. The indirect benefits are

Confidentiality
The information in the study records will be kept confidential to the full extent allowed by law. Data will be stored securely on an NC State managed computer. Unless you give explicit permission to the contrary, no reference will be made in oral or written reports which could link
you to the study. Individual data with identifiable details removed may be made available to the public as required by a professional association, journal, or funding agency. Any identifiable information collected as part of this research, including any bio-specimens, will not be used or distributed for future research purposes without your consent.

**Compensation**
This study will not provide any compensation to you as a participant.

**What if you have questions about this study?**
If you have questions at any time about the study itself or the procedures implemented in this study, you may contact the researcher, Megan Codallo, 3052821439 or mvcodall@ncsu.edu at any time.

**What if you have questions about your rights as a research participant?**
If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the NC State IRB (institutional Review Board) Office via email at irb-director@ncsu.edu or via phone at 1.919.515.8754. An IRB office helps participants if they have any issues regarding research activities.

You can also find out more information about research, why you would or would not want to be a research participant, questions to ask as a research participant, and more information about your rights by going to this website: [http://go.ncsu.edu/research-participant](http://go.ncsu.edu/research-participant). This document is in compliance with the pre-2018 regulations and the 2018 regulations governing research with human subjects.

**Consent To Participate**
“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.”

**Participant’s printed name** ________________________________
**Participant's signature** ________________________________ **Date** ______________
**Investigator's signature** ________________________________ **Date** ______________