COLLEGE CHOICE:

PERCEPTIONS OF FIRST-YEAR STUDENTS IN THE COLLEGE OF AGRICULTURAL SCIENCES AND

NATURAL RESOURCES AT

OKLAHOMA STATE UNIVERSITY

By

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Abstract:

Colleges of agriculture across the nation struggle annually to meet the demand for qualified graduates to fill jobs in the agricultural, food, and environmental industries (Rocca, 2013). Even with increasing enrollment in some disciplines, colleges of agriculture and natural resources are only expected to produce 61% of the graduates needed to fill the expected 57,900 annual job openings between 2015 and 2020 (Goecker et al., 2015). This creates a need for colleges to improve recruitment efforts and utilize financial resources more efficiently.

The purpose of this study was to identify recruitment efforts and factors influencing the college-choice process for first-year students enrolled in the College of Agricultural Sciences and Natural Resources (CASNR) at Oklahoma State University (OSU). The study used a survey research method to describe student characteristics and external influences affecting first-year students in the CASNR AG 1011 – Freshmen Orientation course (N = 531).

Nearly 95% of survey participants agreed recruitment materials were satisfactory in providing the information needed to make a college decision. Respondents indicated campus visits were the most useful source of information. Academic reputation of the university and preparation for employment were the two most influential institutional characteristics, while career opportunities available for graduates was the most influential degree program characteristic. Parents or guardians were the most impactful individuals in the college choice process. The largest percentage of respondents began the college choice process during 11th grade, finalized their OSU selection during the first semester of 12th grade, and finalized their major selection during the first semester of 12th grade. Respondents most frequently specified their primary reason for enrolling in OSU CASNR was to prepare for vet school or the animal science program or the college's academic reputation. Overall, results from this study suggest current recruitment efforts are effective.

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CHAPTER I

INTRODUCTION

Colleges of agriculture across the U.S. struggle annually to meet the demand for qualified graduates to fill jobs in the agricultural, food, and environmental industries (Rocca, 2013). According to Goecker, Smith, and Smith (2010), although many agricultural disciplines have seen an increase in enrollment in the past few years, the growth is not nearly enough to meet the need for qualified individuals in the agricultural industry.

Goecker, Smith, Fernandez, Ali, and Goetz's (2015) employment opportunity study for the U.S. Department of Agriculture (USDA) suggested an average of 35,400 students will graduate annually with expertise in food, agriculture, renewable natural resources, or the environment during the next five years. However, colleges of agriculture and natural resources are only expected to produce 61% of the graduates needed to fill the expected 57,900 annual job openings between 2015 and 2020 (Goecker et al., 2015). As Figure 1 displays, the remaining 39% of positions will be filled by graduates from allied fields such as biology, business, engineering, education, and consumer sciences (Goecker et al., 2015).

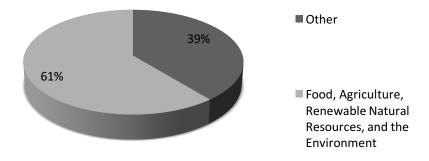


Figure 1. Graduates filling annual job openings in agricultural-related industry (Goecker et al., 2015).

Employers prefer to hire graduates from agricultural programs because they typically have stronger interest and experience related to careers in the agricultural-related industry in comparison to graduates from other fields of study (Goecker et al., 2015). According to Goecker et al. (2015), college graduates with expertise in agricultural-related areas are "essential to our ability to address the U.S. priorities of food security, sustainable energy, and environmental quality." Graduates in these professional specialties are not only expected to provide solutions and guidance on these growing challenges, but also global leadership in providing sustainable food systems, adequate water resources, and renewable energy in today's world of population growth and climate change (Goecker et al., 2015).

According to Goecker et al. (2015), the preference to employ individuals with an agricultural-related degree is expected to continue. The shortage of qualified graduates for agricultural-related job openings in the U.S. is also expected to continue (Goecker et al., 2015).

The Bureau of Labor Statistics predicts a 10.8% increase in the U.S. labor force between 2012 and 2022 due to job growth and openings (Goecker et al., 2015). Opportunities in food, agriculture, renewable natural resources, and environment occupations are expected to grow more than 5% between 2015 - 2020 for college graduates (Goecker et al., 2015).

Clearly, student recruitment is a critical concern for colleges of agriculture (COAs) across the country (Rayfield, Murphey, Skaggs, & Shaffer, 2013). The need for employees to fill positions impacts colleges and the ability to recruit students into agricultural programs and properly use finances (Rocca, 2013). According to Shrestha, Suvedi, and Foster (2011), "it is more important than ever before that colleges of agriculture employ effective recruitment methods to attract the best and brightest students" (p. 34).

As the U.S. population becomes further removed from production agriculture, higher education institutions must create a strategic communications approach to recruit "the next generation of leaders" (Baker, Settle, Chiarelli, & Irani, 2013, p. 32). It is essential for COAs to know how to communicate effectively and assess the current state of recruitment and communication efforts from a student's perspective (Baker, Irani, & Adams, 2011). To compete for students, an institution must have on-going communication with its audiences, including donors, students, alumni, prospective students, and parents (Smith, 2002).

Hossler, Braxton, and Coopersmith (1989) defined student college choice as: "A complex, multistage process during which an individual develops aspirations to continue formal education beyond high school, followed later by a decision to attend a

specific college, university, or institution of advanced vocational training" (p. 234). Emphasizing the words *complex*, *multistage* and *individual*, Hossler et al.'s (1989) definition explains numerous considerations and factors are associated with the collegechoice process for each individual student.

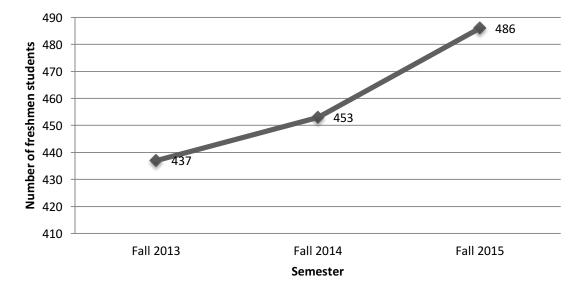
Literature on students' college-choice decisions and selection of majors suggests students base their decisions on several factors (Chapman, 1981). Chapman (1981) examined the influence of external factors, including significant persons, fixed college characteristics, and a college's efforts to communicate with students. The influence of these factors has a role in the institution students choose to attend as well as their long-term career paths because a student's college choice strongly influences his or her career path (Hossler et al., 1989).

To meet the need of professionals in the agricultural, food, renewable natural resources, and environmental industries and acknowledging that a student's college choice strongly influences his or her professional career (Hossler et al., 1989), COAs should evaluate current recruitment strategies (Washburn, Garton, & Vaughn, 2002).

A study was conducted in the College of Agricultural Sciences and Natural Resources (CASNR) at Oklahoma State University (OSU) in 2005 to identify recruitment efforts impacting the college-choice process when students enrolled in OSU CASNR (Herren, 2005). At the time of Herren's (2005) study, the growth rate for CASNR was second to lowest of the academic colleges on campus. The college also had experienced only a 5% growth over five years based on a report called "New students on campus by college type and admission" from 2000 to 2004 (as cited in Herren, 2005).

Since Herren's (2005) study, overall new enrollment by freshmen in OSU CASNR has increased by approximately 38.9% (OSU, 2015). In the fall of 2015, CASNR welcomed its largest freshmen class in history with 486 students (OSU, 2015). This number, however, did not include students with a major in biosystems and agricultural engineering, as they are jointly housed within CASNR and the College of Engineering, Architecture and Technology.

From Fall 2014 - Fall 2015, new enrollment by incoming students in CASNR increased by 7.3% (WEBFocus Business Intelligence Dashboard, 2015). During a two-year period, from Fall 2013 to Fall 2015, CASNR new freshmen enrollment was up 49 students (see Figure 2), resulting in a growth of 11.2% (WEBFocus Business Intelligence Dashboard, 2015).



CASNR Freshmen Enrollment

Figure 2. New freshmen student enrollment in OSU CASNR.

Of the six undergraduate colleges at OSU, the only college experiencing more growth than CASNR from 2014 to 2015 was the College of Engineering, Architecture, and Technology (WEBFocus Business Intelligence Dashboard, 2015).

According to Washburn et al. (2002), COAs spend large amounts of time, energy, and financial resources to recruit students. Additionally, many continually develop and revise recruitment efforts to appeal to prospective students (Washburn et al., 2002). However, COAs rarely use empirical research data when developing recruitment messages and practices (Washburn et al., 2002).

It has been more than a decade since research on this topic has been conducted for OSU CASNR (Herren, 2005). Agreeing with Chapman (1981), Herren's (2005) study showed current students at OSU CASNR were influenced by student characteristics and external factors. Because of enrollment growth, recruitment and communication efforts, and new degree program opportunities and characteristics in CASNR, updated research is needed to identify effective efforts in attracting students during the college-choice process.

Statement of the Problem

Although enrollment rates in OSU CASNR have continued to grow in recent years, research has not been conducted recently to examine the effectiveness of recruitment practices and external factors affecting the undergraduate college-choice process.

Purpose

The purpose of this study was to identify recruitment efforts and factors influencing the undergraduate college-choice process for first-year students enrolled in the College of Agricultural Sciences and Natural Resources at Oklahoma State University.

Objectives

The following objectives guided this study:

- Describe selected personal characteristics (age, sex, ethnicity, academic major, home state, size of hometown, agricultural background, organizational background) of students enrolled in the Fall 2015 OSU CASNR Freshmen Orientation course (AG 1011).
- Determine usefulness of information sources in helping students decide to enroll in OSU CASNR.
- 3. Examine external influences (institutional characteristics, significant persons, degree program characteristics) in a student's decision to enroll in OSU CASNR.
- Examine student's college-choice timeline (when they began the decision-making process, finalized the decision to attend OSU, selected a major within OSU CASNR).
- 5. Identify student's self-reported primary reason for enrolling in OSU CASNR.

Significance of the Study

With declining enrollments in COAs nationwide, and the demand for employment in industry occupations, the need to produce qualified graduates in this area is becoming increasingly important (Goecker et al., 2010; Goecker et al., 2015). In fact, the National Agricultural Education Research Agenda's key outcome for "Priority Three: Sufficient Scientific and Professional Workforce that Addresses the Challenges of the 21st Century" is "a sufficient supply of well-prepared agricultural scientists and professionals to drive sustainable growth, scientific discovery, and innovation in public, private, and academic settings" (Doerfert, 2011, p. 18).

OSU CASNR must continue to make an active effort to target its recruitment strategies to meet the needs of both traditional and non-traditional agriculture students as well as minority students. This study was conducted to assist in that effort.

Knowledge of the factors influencing incoming students to enroll in CASNR will assist administrators, coordinators, and professionals in the CASNR Academic Programs Office, Student Success Center, CASNR Communications Office as well as the CASNR Ambassador team in effectively targeting prospective students.

The results of this study will help to ensure CASNR at OSU produces graduates to fill available positions in the food, agricultural and natural resources industries. This study also will further enable CASNR to evaluate the effectiveness of current recruitment strategies and provide a foundation to maintain and/or develop targeted recruitment strategies based on empirical evidence.

Scope of the Study

The scope of the study was incoming first-year students enrolled in the CASNR AG 1011 – Freshmen Orientation course at OSU in the Fall 2015 semester. Students who transferred to OSU at the beginning of the Fall 2015 semester are not required to take AG 1011 and were not included in this study.

Limitations

The following limitations were identified for this study:

- 1. The researcher chose to use only respondents 18 years of age and older.
- 2. The instrument was available for a limited time frame.
- Data collection was limited to students enrolled in the Fall 2015 AG 1011 course. Findings of the study should be generalized with caution to future prospective students.
- 4. During the time between actual college choice and the time of questionnaire administration, subjects may have revised their opinions of the impact the college-choice items addressed on the questionnaire had on their ultimate college choice.

Assumptions

The following assumptions were made regarding this study:

- 1. Participants were capable of recalling recruitment activities in which they participated.
- 2. Participants responded honestly and truthfully about influences

determining the undergraduate college-choice process.

- Students based college-choice decisions on external influences, personal characteristics, and/or preferences.
- 4. Participants represented all freshmen students in OSU CASNR.
- 5. All respondents had access to the Internet.
- 6. The participants were freshman-level students in OSU CASNR and were at least 18 years old at the time the study was conducted.

Definitions

The following were defined operationally for use in this study:

<u>AG 1011 - Freshmen Orientation</u> – A required, eight-week freshmen orientation course for students in enrolled in the College of Agricultural Sciences and Natural Resources at Oklahoma State University (W.S. Damron, personal communication, January 7, 2016).

<u>CASNR Incoming First-year Students</u> – Students who were enrolled during their first regular semester (Fall semester) after high school in the College of Agricultural Sciences and Natural Resources at Oklahoma State University (W.S. Damron, personal communication, August 14, 2015).

<u>Matriculant</u> – An admitted student who enrolled as an active student in the College of Agricultural Sciences and Natural Resources at Oklahoma State University (W.S. Damron, personal communication, January 7, 2016).

<u>Millennial Generation</u> – Generation of people born from the early 1980s to the early 2000s (Howe & Strauss, 2000).

CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter is to explore and review literature influencing the framework of this study. Topics include Chapman's Model of Influences on Student College Choice, which was used to guide this study, student characteristics and external factors influencing the college choice process, college communication efforts, general expectations of college life, and the Millennial Generation.

Model of Student College Choice

Previous literature on students' college enrollment decisions and selection of an academic major reveals students are influenced by numerous factors. This study used Chapman's (1981) Model of Student College Choice as the basis of the theoretical framework. Chapman (1981) presented a model of influences affecting a prospective student's choice of which college to attend (see Figure 3).

This model is intended to:

 "Assist college administrators responsible for setting recruitment policy to identify the pressures and influences they need to consider in developing institutional recruiting policy, and Aid continued research in the area of student college choice" (Chapman, 1981, p. 490-491).

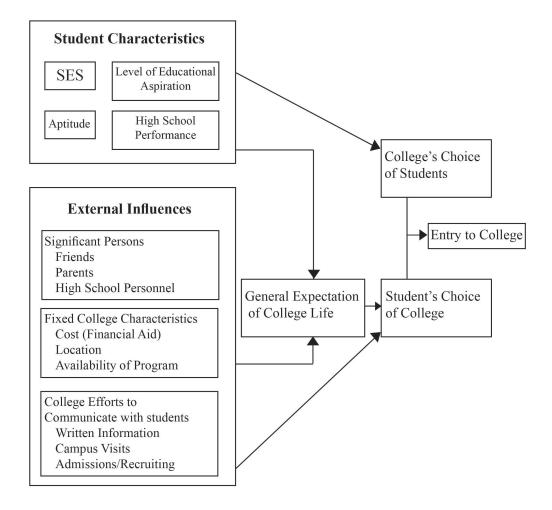


Figure 3. Model of Influences on Student College Choice (Chapman, 1981).

In Chapman's (1981) conceptual model, he suggested a prospective student's college-choice decision is based on a combination of two broad factors: student characteristics and external influences. Student characteristics include socioeconomic status, aptitude, level of educational aspiration, and high school performance, while external factors include the influence of significant persons, college characteristics, and

communication efforts (Chapman, 1981). According to Bobbitt (2006), the relationship among these elements "lead to a student's school selection, a college's choice of student's, and a student's eventual entry to college" (p. 14). Overall, the model suggests student college choice is influenced by "a set of student characteristics" (Chapman, 1981, p. 492). Chapman (1981) places these external influences into three separate categories: significant persons, college characteristics, and a college's efforts to communicate with prospective students.

Chapman's (1981) model accounts for background and characteristics of both students and their families and the characteristics of the college; however, it should be noted it does not account for all factors influencing a prospective student's college choice. Additionally, the model is limited to identifying factors influencing traditional age (18 to 21) prospective students (Chapman, 1981).

This model is applicable and conceptual as it enables researchers and college admissions and recruitment professionals to gain a more complete understanding of factors influencing the college decision-making process (Bobbitt, 2006). Without such a model, colleges may overlook ways to strengthen their recruiting strategies or even overestimate the effectiveness of current recruitment activities (Chapman, 1981).

The remainder of this review of literature focuses on research and literature as it relates to the objectives of this study.

Factors Influencing College-Choice Process

The discussion of literature related to factors influencing college-choice decision was framed by Chapman's (1981) Model of Influences on Student College Choice.

Student Characteristics

Four student characteristics were included in Chapman's (1981) model. These student characteristics included socioeconomic status, levels of educational aspiration, aptitude, and high school performance.

Socioeconomic Status

According to Chapman (1981), "socioeconomic status (SES) acts as a backdrop that influences a series of other attitudes and behaviors that, in turn, are related to college choice" (p. 493). He suggested students from higher SES families were more likely to attend four-year universities than students from families with average or low SES (Chapman, 1981).

The level of family income also can set parameters for the college options students consider (Washburn, Garton, & Vaughn, 2002). Davis and Van Dusen (1975) found upper-income students preferred private universities, middle-income students preferred state universities, and lower-income students were likely to prefer community colleges and state universities. According to Washburn et al. (2002), SES not only impacts college choice, but also impacts whether or not a student can attend college at all. Cunningham and Fickes' (2000) study noted, "having financial problems" as the most frequently cited reason for deciding not to enroll in the institution.

Additionally, Walpole (2003) found the SES background of a college student can affect his or her overall college experience and outcome. In his longitudinal quantitative study, Walpole (2003) discovered students from low SES families who attended fouryear universities worked more, studied less, were less involved in campus activities, and

reported lower GPAs in comparison to colleagues from higher SES backgrounds.

Level of Educational Aspiration/Expectations

Chapman (1981) related students' academic goals to their educational aspirations. Although similar, educational aspiration and expectations vary in meaning and intent. Chapman (1981) defined aspirations as "wishes or desires expressing an individual's hopes about the future" (p. 494). Aspiration is "what a person perceives he or she will be doing or will have accomplished at some future date" (Chapman, 1981, p. 494). According to Chapman's (1981) model, both educational aspirations and expectations influence students' college-choice selection.

He also suggested students tend to frame their college aspirations and expectations on their respective level of academic aptitude (Chapman, 1981). Hossler, Schmit, and Vesper's (1999) study found students with higher grades received more encouragement from parents, teachers, peers, and others to continue their education, which supported Chapman's (1981) theory.

In Hu's (2003) comparative study of educational aspirations and college choice of students in urban, suburban, and rural schools, students from rural schools had consistently lower postsecondary aspirations and enrollment in comparison to students from larger schools. Students from rural schools also had lower aspirations for four-year colleges and graduate school (Hu, 2003).

Aptitude and High School Performance

Chapman (1981) said high school achievement and performance are widely used

by colleges and universities when admitting or rejecting students. He suggested aptitude affected student college choice in two ways (Chapman, 1981; Washburn et al., 2002). First, student aptitude is associated with college entrance exams and admissions requirements, so students often self-select the colleges where they apply to reflect "what they believe colleges will consider" (p. 493). Second, students commonly self-select institutions with current students of similar aptitude as themselves (Chapman, 1981).

According to Chapman (1981), students frame their academic aspirations and expectations on their level of aptitude and high school performance. Hossler et al.'s (1999) study found students with higher GPAs received more encouragement and inspiration from peers, parents, teachers, and other relatives. McDonough (1997) found students' academic performance confidence level correlated positively to their educational aspirations.

However, not all literature supports Chapman's theory. Washburn et al.'s (2002) study found matriculating students at the University of Missouri – Columbia had no significant difference in ACT scores, high school class rankings, or GPAs than students who chose not to enroll.

External Influences

Significant Persons

For many students, the selection of an academic major and college is the first major life decision they have ever made (Carnegie Foundation, 1986).

The influence of other individuals can have an impact on a student's college-

choice decision. Chapman (1981) found three ways in which people influence this process. First, significant persons have the ability to influence a student's expectations of what a particular college is like. Second, they offer direct advice about which college a student should attend. Third, and most common, Chapman (1981) found people such as close friends and relatives influence a student by their own college choice decision and where they themselves graduated from.

Washburn et al.'s (2002) study at the University of Missouri found parents and graduates of the university to be the most influential people for students enrolled in the College of Agriculture, Food and Natural Resources. For students majoring in agricultural education, high school agriculture teachers were the most influential group (Washburn et al., 2002).

In a study at the University of Minnesota, Segler-Conrad, Joerger, and Leske (2004) found the four individuals with the most influence on agricultural education majors were high school agricultural education teachers, parents, current students, and friends, siblings and alumni of the college. Overall, students in all agricultural majors reported parents and friends as the most influential individuals. Less influence came from teachers and extension educators (Segler-Conrad et al., 2004).

Results of a study at the University of Florida showed parents or guardians, friends currently in college, and relatives who attended the university had the highest mean influence among students in the study (Rocca and Washburn, 2005). Incoming students in this study indicated high school agricultural teachers and college alumni as the least influential (Rocca et al., 2005). Transfer matriculants sought influence from a faculty or staff member of the prospective college (Rocca et al, 2005).

The most used and most influential individual from Herren's (2005) study in the College of Agricultural Sciences and Natural Resources at Oklahoma State University was a parent or guardian. A parent or guardian influenced approximately 94% of respondents in this study (Herren, 2005). The least useful individuals were high school science teachers and community college counselors (Herren, 2005).

Bobbitt's (2006) study at Texas Tech University's College of Agricultural Sciences and Natural Resources found a friend in college to be the most significant individual, influencing 50.2% of students. Other significant individuals included at the top of the list were parents or guardians (46.8%) and a friend in high school (45.3%).

Rayfield et al. (2013) found the most influential individual affecting student decisions to enroll in the College of Agriculture and Life Sciences at Texas A&M University was a parent or guardian. Immediately following were relatives who work in the agricultural or life sciences industry and personal role models (Rayfield, et al, 2013).

Rocca's (2013) study comparing factors influencing matriculation of students into a COA found parents and/or guardians as the top significant persons for both matriculants and non-matriculants. High school agricultural science teachers were the second most influential people for both groups. High school general science teachers were the least influential people for matriculants (Rocca, 2013).

Fixed College Characteristics

According to Chapman (1981), location, cost, campus environment, and the availability of desired programs are relatively fixed college characteristics. While most of these characteristics have the potential to change over time, they are relatively constant in the short-term (Chapman, 1981). For example, implementing a new program or reducing tuition and fees usually involves numerous committees, institutional reviews, or even state reviews (Chapman, 1981). Therefore, changing these factors and the way they are perceived by students may be challenging, which is why Chapman (1981) included them in his model as relatively fixed characteristics.

Cost and Financial Aid

According to Chapman (1981) and Tilery and Kildegaard (1973), cost is more of an influence on whether a student will go to college than on which one he or she will choose. On the contrary, Davis and Van Dusen (1975) said cost is one of the most common reasons students do not attend their most highly preferred institution. Chapman also cited Ihlanfeldt (1980), who suggested a large percentage of students would be restricted in their college choice without financial aid and support. Rocca and Washburn (2005) and Herren (2005) found cost and availably of financial aid to be ranked in the middle of the institutional characteristics list. However, in 2013, with rising tuition and fees, Rocca (2013) found cost as a top factor in the college choice process.

Location

Chapman's (1981) model suggests proximity to home is influenced by the number of educational alternatives in the geographical area. Furthermore, prospective students in an area with many colleges are less likely to travel as far to school as prospective students in rural areas without many colleges (Chapman, 1981). Additionally, students' geographical mobility is affected by academic ability and financial strength (Chapman,

1981). High-ability students without financial need typically consider a wider array of colleges than students in need of financial assistance, according to Chapman (1981).

Literature on the importance of location in the college-choice process varies. Rocca and Washburn (2005) found distance from home and campus location had a higher mean level of influence for transfer matriculants than high school matriculants. Transfer matriculants ranked "distance from home" as 9, while high school matriculants ranked it 12 out of 17 items. Students in Herren's (2005) study at OSU, ranked "city in which campus is located" and "distance from home" as 13 and 14, respectively, out of 20 institutional characteristics. Fifty-four percent of respondents were influenced by distance in Bobbitt's (2006) study.

Rocca (2013) found notable differences between matriculants and nonmatriculants regarding their perception of location and distance in the college choice process. Most notable, non-matriculants ranked "city in which campus is located" as the most influential institutional characteristic of all 17 items; however, matriculants ranked this item 10th (Rocca, 2013). Although non-matriculants were most influenced by the city the institution was located in, they were not as concerned with the distance it was from their home (Rocca, 2013). Matriculants ranked "distance from home" as the fourth most influential institutional characteristic of all 17 items, while non-matriculants ranked this item 11th.

Availability of Desired Courses

Students select colleges and universities that will provide them with the courses needed to enter graduate or professional school or a career (Chapman, 1981). Therefore,

many studies show available courses and the benefits students develop from these courses are the most important characteristics students look for when selecting a college (Chapman, 1981).

Literature on fixed college characteristics varies from study to study. Rocca and Washburn (2005) found academic reputation of the university, opportunities after graduation, prestige of the university, and preparation for employment had the most influence on high school and transfer matriculants into the College of Agriculture and Life Sciences at the University of Florida. Rocca and Washburn (2005) also found both high school and transfer matriculants were influenced the least by campus safety and security, prominence of athletic teams, and class sizes. High school matriculants also specified awarded scholarships as another significant influence (Rocca & Washburn, 2005).

Respondents from Herren's (2005) study at OSU selected opportunities after graduation as the most influential institutional characteristic. The second most influential characteristic was academic reputation of the university. Prominence of university athletic teams was noted as least influential (Herren, 2005).

Bobbitt (2006) found quality of the facilities and opportunities after graduation had the highest mean level of influence on respondents, influencing nearly 82%.

In Rocca's (2013) study, the top four institutional characteristics for matriculants were opportunities after graduation, variety of majors offered, cost, and distance from home.

College's Efforts to Communicate with Students

According to Chapman (1981), a concerned college or university's first step should be to "review the way it identifies and recruits prospective students" (p. 498). Therefore, the final category of his model is "college efforts to communicate with students" (Chapman, 1981). This external influence was what Chapman (1981) considered the most easily altered.

At the time Chapman's model was developed, a large percentage of the research being conducting on the topic of college choice and prospective student recruitment dealt with the application of systematic marketing principles (Washburn et al., 2002). The marketing approach encouraged examination of an institution's "market position," the implementation of a "marketing plan," and the development of new strategies involving both recruiting programs and the communication process (Chapman, 1981, p. 498). When presenting his model, Chapman (1981) expressed concern that little research existed that documented the "effectiveness in attracting students to make college choices they might not otherwise have made" (p. 498). Tillery and Kildegaard's (1973) study showed students with high educational aspirations were likely to seek college information. Chapman's model (1981) also considered the findings of Dominick, Johnson, Chapman, and Griffith (1980), which suggested high school visits and campus visits to be the most useful recruiting activities as perceived by students.

Tinto (1993) made the following statement regarding college recruitment materials and efforts in his book titled, *Rethinking the Causes and Cures of Student Attrition:*

"One of the most obvious actions institutions can take to treat a very early source of (enrolled) student departure is to ensure that the materials it produces and distributes (to prospective students) are accurate, complete, and openly reflective, within reason, of the full range of intellectual and social life in the institution" (p. 142). Overall, Tinto suggests recruitment materials give fewer promises (Washburn et al., 2002).

According to Baker et al. (2011), marketing and public relations efforts on college campuses have progressed considerably since a study by Steinberg in 1966 reported the most important function of the college informational program was press relations (Steinberg, 1966). To flourish in today's marketplace, an institution must create modern, attractive ways to communicate with prospective students strategically (Baker et al., 2011). DesJardins and Hendel's (1999) study determined prospective students have a desire to learn if a program is a good match for them before deciding on their college or major. Therefore, a college or degree program must communicate its strengths accurately to engage students (Baker et al., 2011). Improving communication is critical when working to build a strong reputation (Fill, 2002), and for COAs to entice the highest caliber of students, it is imperative they measure current communication efforts from a student's perspective as to what is effective and meaningful (Baker et al., 2011).

Washburn et al.'s (2002) study in the College of Agriculture, Food, and Natural Resources (CAFNR) at the University of Missouri asked participants to identify information sources used when making their college-choice decision and to rank the usefulness of those sources. Both matriculants and non-matriculants ranked campus visits, printed university publications, and letters mailed from university admissions representatives as the most commonly used sources (Washburn et al., 2002). The CAFNR

website was the least used source of both groups (Washburn et al., 2002), and the most useful information came from participation in student activities on campus, personal conversations with faculty members, and participation in on-campus recruitment events. The most noticeable difference between the two groups was perceived usefulness in participation of on-campus activities. Matriculants used these sources more and found them more useful (Washburn et al., 2002).

Rocca and Washburn (2005) discovered transfer matriculants generally used more sources of information when making a college-choice decision than high school matriculants. Both groups used websites and printed university information most regularly; online information and conversations with professors were the most useful sources of information (Rocca & Washburn, 2005).

Findings from Herren's (2005) study at OSU CASNR showed campus visits to be the most commonly used and most useful source of information, with 87.6% of respondents indicating they visited campus. Other top information sources included personal conversation with a professor, degree program information on the CASNR website, and printed OSU and CASNR publications (Herren, 2005). Sources used by less than half of the population included participation in a CASNR on-campus recruitment program, participation in on-campus 4-H events, and visits by a CASNR representative to high schools (Herren, 2005). Participation in FFA events on campus had the largest mean level of influence and standard deviation, with 57.8% of respondents using this source of information. Lastly, participants were asked if they received the information needed to make an educated decision about enrolling at OSU. Approximately 93% of respondents were satisfied (Herren, 2005).

Bobbitt (2006) found three information sources were used by more than threefourths of the respondents, including TTU information on a website (84.0%), visit to campus (80.2%), and degree program information on a website (75.9%). According to Bobbitt (2006), the sources of information that influenced the most students were a visit to campus and a personal conversation with a professor.

When examining the level of usefulness of the 17 sources of information in Rocca's (2013) study, matriculants identified the following three sources as the most useful: visit to campus, participation in student activity events on campus, and personal conversation with a professor. Both matriculants and non-matriculants indicated the least useful source of information was "TV, radio, newspaper, or magazine advertisements" (Rocca, 2013).

General Expectations of College Life

Chapman (1981) suggested student characteristics and external influences greatly contribute to the undergraduate college-choice process and the institution's selection of a student, but the two categories also influence students' general expectations of college life.

Based on previous literature (Chapman & Baranowski, 1977; Stern, 1970), Chapman (1981) said many students enter college with "unrealistic expectations of the college environment" (p. 499). Chapman and Baranowski (1977) found many collegebound, incoming students had a "highly stereotyped, idealized image of college life" (p. 499). Overall, Chapman included this section of his model because he said:

"College information gained through high school experiences, the influence of

significant other people, and the colleges' own efforts to communicate with prospective students appear to get filtered by these generalized, idealized expectations" (p. 499).

Therefore, Chapman (1981) cautioned some college decisions might be based on stereotypes rather than careful consideration of the probable student experience at various institutions. Unrealistic expectations or the "freshmen myth," as named by Chapman (1981), should be considered as a mediating influence in the model.

Millennial Generation

The current U.S. population is made up of five generations: the G.I. Generation (born between 1901 to 1924), the Silent Generation (1925–1942), the Baby Boomer Generation (1943–1960), Generation X (1961–1981), and the Millennial Generation (1982–2002) (Howe & Strauss, 2000). The majority of students who are enrolled in higher education institutions today are "millennials" or members of the Millennial Generation (Elam, Stratton, & Gibson, 2007). Therefore, it is important to review literature focusing on the characteristics of this cohort in relation to the college-choice process.

According to Carlson (2005), millennial students are well versed in the advantages a college education can provide. More than any other generation, millennials are entering academic institutions far more sophisticated, demanding, and technologically advanced. Carlson (2005) stated millennials are entering college with high expectations and preconceived ideas about the experiences they should have while in college,

including experiences in academic courses. He suggested, "millennials expect to be able to choose what kind of education they buy, and what, where, and how they learn" (Carlson, 2005, p. 34).

Howe and Strauss (2007) said ignoring the demands and desires of the Millennial Generation is a mistake for higher education institutions. Instead, Howe and Strauss (2007) suggest colleges and universities modify their efforts in recruiting prospective student to meet the needs and desires of the Millennial Generation.

"Colleges and universities that figure out the new trends, make wise tuition and budget choices, and market intelligently to today's youth, will be able to 're-brand' their own reputations, leapfrog rivals – and, perhaps, join the top echelons of academe" (Howe & Strauss, 2007, p. 5).

Website

Oblinger (2003) said the younger the age group, the higher is the percentage of users of the Internet for school, work, and leisure. In a study of how those aged 12 to 17 use the Web, findings showed 94% use the Internet for school research and 78% believe the Internet helps them with schoolwork (Oblinger, 2003). Among teens, instant messaging and email seem to be natural communication and socialization mechanisms (Oblinger, 2003).

In relation to college choice, Poock (2006) found prospective students have utilized the Internet to gather information about colleges with increasing frequency during the past decade. According to Martin (2006), websites are the primary source of information for students who are choosing a college, and a university site is often the first

communication channel for prospective students and higher education institutions. Because students now have the capability to "browse, formulate impressions, and make decisions with no formal interaction with the school," understanding the ways in which students use the Internet in their college-choice process is important for institutions of higher education (Hendricks, 2006).

Social Media

OSU CASNR uses three social media platforms to reach their various target audiences, including prospective students; therefore, literature on social media in higher education was included. Given the growing popularity of social networking sites among millennials, higher education administrators are beginning to view these networks as ways to reach both current and prospective students (Wandel, 2008). "Social media can be used as an educational tool to help students reach desired college outcomes" (Junco, Heiberger, & Loken, 2011, p. 130). Colleges and universities need to realize reputation, campus culture, and enrollment rates are all affected by social networking and online presence (Wandel, 2008). Seventy-four percent of students expect colleges to have social media sites and one-third of prospective students reported searching for colleges on various social media sites (Noel-Levitz, 2011). According to Broome, Croke, Staton, and Zachritz (2012), 76% of prospective students said they would join a private social network for their college of interest. Once students are enrolled, online social networks "provide a constant source of information" and encourage attendance at residence hall events, club meetings, and Greek organizations" (Wandel, 2008, p. 37). For example, Facebook provides colleges with a simple way to engage with prospective students in

informal conversations, build community, and view students' public activities and interests (Broome et al., 2012, p. 4). According to Hootsuite (2015), Instagram is finding its niche in educational settings and is currently the most popular social network of the age 18 to 34 demographic. The University of Michigan used Instagram to promote research projects at the university and found it to be "a really powerful way of storytelling" (Abbott, Donaghey, Hare, & Hopkins, 2013, p. 3). Twitter can also be used to engage students in ways that are "important for their academic and psychosocial development" (Junco et al., 2011, p. 128).

Summary of Student College Choice

In summary, Chapman's Model of Student College Choice (1981) suggests both student characteristics and external influences play an important role in a student's college-choice decision. The interrelationship between these two categories of influence leads to a student's selection, an institution's choice of admits, and eventually, a student's enrollment (Bobbitt, 2006).

Student characteristics such as socioeconomic status, level of educational aspiration and aptitude, and high school performance all influence a student's collegechoice decision (Chapman, 1981). For example, Walpole (2003) found students with low socioeconomic backgrounds had lower educational aspirations.

External influences impacting a student's college-choice decision include significant persons, institutional characteristics, and a college's efforts to communicate with students (Chapman, 1981). Significant persons such as parents, other relatives, and high school and college friends are influential individuals (Bobbitt, 2006; Herren, 2005; Rocca & Washburn, 2005).

Many institutional characteristics attract and influence prospective students (Chapman, 1981). These characteristics include academic reputation, facilities, scholarships, and preparation for employment (Bobbitt, 2006; Herren, 2005; Rocca, 2013; Rocca & Washburn, 2005; Washburn et al., 2002).

Additionally, a college's effort to communicate with prospective students plays a major role in the college-choice process (Chapman, 1981). Some of the most commonly used and effective methods were found to be campus visits, university websites and publications, and conversations with professors (Bobbitt, 2006; Herren, 2005; Rocca, 2013; Rocca & Washburn, 2005; Washburn et al., 2002).

Chapman's (1981) model does not exhaust the possibilities of influence, but it does identify the major factors to be considered. Colleges and universities reviewing their recruitment strategies should understand these various influences that affect prospective students during the college-choice process. Therefore, Chapman's (1981) Model of Influences on Student College Choice served as the theoretical framework of this study, providing a foundation for existing literature related to student college choice.

CHAPTER III

METHODOLOGY

This chapter explains the methods and procedures used to conduct this study, including approval by the Oklahoma State University Institutional Review Board (IRB), research design, instrumentation, validity, reliability, population, data collection, and data analysis.

Institutional Review Board

Oklahoma State University policy and federal regulations require approval of all research studies related to human subjects before researchers can begin their research. The Oklahoma State University Office of University Research Services and the IRB review research methods to protect the welfare of human subjects involved in biomedical and behavioral research. This study was reviewed by the OSU IRB and was approved July 29, 2015 (see Appendix A). The IRB application number assigned to this study was AG-15-33.

Research Design

A survey research method was employed to describe perceptions of factors influencing college-choice by first-semester students enrolled in AG 1011.

According to Creswell (2012), descriptive statistics summarize trends and tendencies in data and provide a foundation for understanding how certain scores compare with others. Survey research designs are used in quantitative research to survey a sample or entire population to describe attitudes, opinions, and/or characteristics of a population (Creswell, 2012). An advantage to using a survey research design is its ability to describe trends in data and test research objectives. However, Creswell (2012) also stated survey research cannot explain cause and effect situations as well as experimental research. The focus of survey designs is to learn more about a population (Creswell, 2012).

As a result, a survey research design best fit the needs of the research objectives for describing the perceptions of OSU CASNR prospective student recruitment efforts and factors influencing students' undergraduate college-choice process when enrolling in OSU CASNR (Creswell, 2012).

Population and Sample

The population of this study included incoming first-year students enrolled in the Fall 2015 AG 1011 – Freshman Orientation course at Oklahoma University (N = 531). Approximately 30 students enrolled in the course were classified as university studies students. It is important to note these students had not selected a major at the time of

enrollment, but they were enrolled in AG 1011 because they had expressed interest in a CASNR major. Students who transferred to OSU at the beginning of the Fall 2015 semester were not required to take AG 1011 and were not included in the population.

Of this population, 501 students (n = 501) completed the questionnaire, resulting in a response rate of 94.4%.

Instrument Design

The instrument used in this study was developed based on previous research related to factors influencing college-choice decisions (Washburn, 2002; Rocca et al., 2003; and Herren, 2005). The instrument was initially designed by Washburn et al. (2002). Washburn et al.'s (2002) instrument was developed to "examine recruitment efforts as they affect the decision-making process of entering students" (p. 3) in College of Agriculture, Food and Natural Resources at the University of Missouri. Washburn et al. (2002) surveyed first-time enrollees in CAFNR, first-time agricultural education enrollees, and students who were admitted, but chose not to enroll. A panel of experts reviewed the initial questionnaire for face and content validity, and a pilot test of 34 sophomore students established internal consistency of the instrument.

Washburn et al.'s (2002) instrument was then modified by Rocca et al. (2003) to address the recruitment efforts of the College of Agricultural and Life Sciences, School of Natural Resources and Environment and School of Forest Resources and Conservation at the University of Florida. Herren (2005) then used the instrument "to fit the recruitment strategies used by Oklahoma State University's College of Agricultural Sciences and Natural Resources" (p. 30).

Because of the recent advancement in communication tools, prospective student recruitment services and strategies, and personnel, I modified Herren's (2005) instrument to identify factors influencing students to enroll in OSU CASNR.

The instrumentation used in the study was an electronic questionnaire built in and hosted by www.Qualtrics.com, a Web-based software program. It included questions regarding factors influencing the college choice process and a personal demographic inventory (see Appendix B).

The first question of the study asked respondents to give consent to participate to meet IRB requirements. Respondents were informed the study presented minimal to no risk and of how the researcher would preserve their privacy. Once a respondent gave consent, he or she could continue to the major portion of the questionnaire.

With help from a panel of experts, I refined questions aimed to determine student perceptions of factors influencing the undergraduate college-choice process for first-year students in CASNR enrolled in AG 1011. Questions included identifying influential factors when relating a student's intended major and selection of a university; categorizing influential individuals when selecting a university; identifying the most commonly used sources of information in the college-choice process; identifying which institutional characteristics are most important to students in the college-choice process; and describing points of the college-choice decision timeline.

To collect self-reported personal characteristics, I modified nine closed-ended and semi-closed questions adapted from Kimmelshue (2012), Cramer (2013), and Norris (2015), all of which used CASNR's AG 1011 - Freshmen Orientation course as the population of their research studies. Based on Creswell's (2012) recommendation to place sensitive questions after neutral questions, the demographic inventory was included at the end of the questionnaire, with only two open-ended questions immediately following. To meet the study's minimum age of 18, the first demographic question asked the respondents to provide their age. Those under 18 were not included in the study.

Validity

Creswell (2012) defined validity as the level to which a response exposes the intended interpretation of the question's purpose. Validity is measured to confirm an instrument's test interpretation is the same as its proposed use (Creswell, 2012).

The instrument was reviewed for content and face validity by a panel of experts (Leeuw, Hox, & Dillman, 2008). The panel consisted of individuals within OSU CASNR, with knowledge of AG 1011, interact with first-year students, and/or are familiar with CASNR prospective student services. Panel members included three faculty members in the OSU Department of Agricultural Education, Communications and Leadership; CASNR Assistant Dean and AG 1011 instructor; CASNR Prospective Student Coordinator; CASNR Communications Coordinator; DASNR Communications Specialist; a current graduate teaching assistant; and two current students who had previously been enrolled in AG 1011. Leeuw et al. (2008) said using a panel of experts helps "uncover a wide range of potential problems from typos and skip pattern logic errors to problems with how concepts have been operationalized" (p. 199).

Panelists provided comments and suggestions about the content and format of the online questionnaire. Each expert reviewed the instrument online using a URL distributed by the researcher; however, they each received a hard copy of the instrument as well to

discuss edits with the researcher. Panel members recommended changes regarding grammatical errors, modification of word choices to improve clarity, and additions and/or deletions of questions to improve content. Preliminary changes were made, and the questionnaire was returned to panel members for a second review. The researcher and faculty chair made final changes before publishing the questionnaire online.

Reliability

Given the nature of this study, I chose to conduct a pilot study. This study piloted both the instrument and data collection process and was conducted from July 21, 2015 -July 31, 2015. It was distributed to selected sophomore-level students who had recently completed their first-year in CASNR and were enrolled in AG 1011 in Fall 2014. In total, 32 people participated in the pilot study. All respondents were entered into a drawing for a restaurant gift card as an incentive to participate.

Participants were asked to provide feedback on the following: completion time, clarity, organization, and/or any concerns they experienced. After collecting responses, my faculty chair and I determined no changes to the instrument were necessary.

According to Field (2009), Cronbach's alpha scores measure the internal consistency of an instrument through scale reliability. A Cronbach's alpha range between .70 and .80 is considered reliable, and all scores above .80 imply good reliability within the instrument (Field, 2009).

A reliability analysis was conducted on the four Likert-type scale items in the pilot study. The data collected during this pilot test were analyzed through the use of IBM Statistical Package for the Social Sciences (SPSS) Statistics 23.0 for Macintosh TM. The

four variables tested in the pilot test were degree program characteristics, significant persons, information sources, and institutional characteristics. The Cronbach's alpha for the sections ranged from 0.53 to 0.86 (see Table 1).

Table 1

Cronbach's Alpha for Reliability Analysis

Variable	Number of Items	α
Information Sources	16	0.86
Significant Persons	11	0.85
Institutional Characteristics	13	0.70
Degree Program Characteristics	7	0.53

Because one variable was not considered reliable, I ran a post hoc analysis test on the first 30 respondents to ensure the study's reliability. The same four variables were analyzed. The Cronbach's alpha for the sections ranged from 0.76 to 0.94 (see Table 2), increasing from the original reliability analysis to an acceptable level.

Table 2

Cronbach's Alpha for Post Hoc Analysis

Variable	Number of Items	α
Information Sources	16	0.94
Significant Persons	11	0.87
Institutional Characteristics	13	0.81
Degree Program Characteristics	7	0.76

Data Collection

According to Dillman, Smyth, and Christian (2014), an effective questionnaire is convenient for the intended population to respond. Today, this may entail offering webbased questionnaires and "emailing people a link that will open their browser and conveniently take them to the survey when clicked" (Dillman et al., 2014). Therefore, to increase convenience and preserve class time, a web-based questionnaire was administered to first-year students in AG 1011.

The CASNR AG 1011 – Freshmen Orientation course consisted of seven sections during the Fall 2015 semester. During the second day of the first week (August 19 and August 20, 2015, depending on the section), I visited all seven sections to notify students of the research project and encourage participation in the study, while also explaining participation as completely voluntary. Additionally, prospective participants were contacted via the course page on the OSU online classroom portal, Desire 2 Learn (D2L), and via their OSU e-mail addresses. The link to the online questionnaire was included.

Participant Confidentiality

Responses to the instrument were kept anonymous to protect the identity of participants, and only summarized data were reported. In order to award extra credit and have information needed for a gift-card drawing, respondents were asked to enter their names and e-mail addresses at the completion of the online survey. This identifying data were entered on a separate survey page and was never part of the questionnaire's data set. No one could associate individual subject's responses or names. Names and contact information were saved on a password-protected computer for eight-weeks. After extra

credit points were entered, these data were destroyed. Additionally, research records were stored on a password-protected computer, and only my committee chair and I had access to student responses.

Questionnaire Administration

At the beginning of each AG 1011 course section, graduate teaching assistants for the course introduced me. Following this step, I read a script describing the purpose of the study, the research and extra credit opportunity the questionnaire would bring, and participant information that described students' rights as research volunteers (see Appendix C).

I also explained how the students could access the online questionnaire in the script. After reading the script to all sections, I emailed each student via their OSU email addresses. The first email was sent on Thursday, August 20, 2015, and included the purpose of the study as well as a link to the online survey (see Appendix D). Additionally, I posted a news item announcement on the D2L course page with information and the link to the online survey (see Appendix E). I sent a second reminder email (see Appendix D) to all students on Thursday, August 27, 2015. The final reminder email (see Appendix D) was sent on Wednesday, September 2, 2015, two days before the survey ended.

As soon as students clicked on the link included in the emails or on D2L, they were directed to the questionnaire. The first page (see Appendix F) described the study and informed them of their rights as survey participants. At the bottom of this page, they had two options, "I agree" or "I do not agree" to the information presented above.

Participants who selected "I agree" were taken to the next page of the survey, and participants who selected "I do not agree" were redirected to close the browser.

The questionnaire was available online from Wednesday, August 19, 2015, to Friday, September 4, 2015 at midnight. Because of the high response rate, I did not complete any follow-up data collection for students who did not complete the survey. Participation in the study was voluntary. Students under the age of 18 were asked to not complete the study. Two students under the age of 18 completed the questionnaire but were removed from the data set.

Dillman et al. (2014) said one of the most effective ways to increase response rates of voluntary questionnaires is offering cash or material incentives to participants. The primary function of these incentives is to implore a sense of mutual obligation (Dillman et al., 2014). Therefore, participants who completed the survey were given the option to enter their information for a chance to win a \$50 OSU Student Union Store gift card. The winning student was selected at random and notified through a congratulatory email (see Appendix G).

Students who completed the questionnaire and provided their contact information at the conclusion of the questionnaire also received 10 extra credit points in the CASNR AG 1011 – Freshmen Orientation class. Only myself, a teaching assistant for the AG 1011 course, had access to the extra credit points for the class. Immediately after scores had been added to the grade book, the names were discarded. An alternative extra credit assignment (see Appendix H) was available for students who did not wish to participate in the study or did not reach the age requirement. The alternative assignment was accessible to all students through the D2L Online Classroom. As Creswell (2012)

suggested, the researcher provided an alternative assignment to avoid placing pressure on students to complete the questionnaire.

Data Analysis

Data for this study were analyzed using SPSS 23.0 for Mac. SPSS was used to report descriptive statistics and reduce human error (Field, 2009).

The first research objective inquired about students' personal characteristics, including their age, sex, home state, academic major, agricultural background, and organizational background. Participants' responses were analyzed for frequency.

The second research objective aimed to determine usefulness of information sources. According to Boone and Boone (2012), Likert-type items fall into the ordinal measurement scale. Boone and Boone (2012) suggested means are an appropriate way to analyze central tendencies for ordinal data. Therefore, means and standard deviations were generated for all 16 items to describe the level of usefulness for each item. Similarly, for the third objective, means and standard deviations were calculated for each item describing institutional characteristics, significant persons, and degree program characteristics. Percentages were used to analyze frequencies of the 11 significant person items. The fourth research objective examined when students began the decision-making process, selected a major, and finalized the decision to enroll in OSU CASNR. To identify points on the decision timeline, responses were analyzed for frequency. Means, medians, and modes also were analyzed to report the mode for each step of the decision timeline. The final research objective described respondents' primary reasons for enrolling in OSU CASNR. As responses for this item were descriptive and open-ended,

the researcher developed a coding system to analyze data. After coding, data was entered into SPSS and responses were analyzed for frequency.

CHAPTER IV

FINDINGS

Chapter IV describes the findings of this study as directed by the purpose and objectives. Findings are listed in order of the research objectives.

Findings Related to Objective One

Objective one described selected personal characteristics (age, sex, ethnicity, academic major, home state, size of hometown, agricultural background, organizational background) of students enrolled in the Fall 2015 OSU CASNR Freshmen Orientation course (AG 1011).

Personal Characteristics

Age.

The mean age of respondents was 18.2. The youngest respondents were 18; the oldest respondent was 31. There were no missing responses, and 416 students (82.8%) were 18 years old. Seventy-seven (15.4%) respondents were 19 years old at the time of completion. Two students were pulled from the population and the study because they were under 18 years old.

Sex.

In regards to biological sex, 68.9% (f = 345) were female and 30.5% (f = 153) were male (see Table 3). Three students chose not to respond.

Table 3

Distribution of Respondents by Sex (n = 498)

Sex	f	%
Female	345	68.9
Male	153	30.5

Note. Mode = Female

Ethnicity.

Respondents were asked with which racial or ethnic group(s) they most closely identify. Four hundred students (79.8%) identified most closely to the Caucasian (non-Hispanic) race (see Table 4). Three students chose not to respond.

Table 4

Distribution of Respondents by Racial or Ethnic Groups (n = 498)

Group	f	%
Caucasian (Non-Hispanic)	400	79.8
Native American or Native Alaskan	53	10.6
Latino or Hispanic	18	3.6
African-American (Non-Hispanic)	15	3.0
Asian or Pacific Islander	7	1.4
Other	5	1.0
Total	498	100.0

Note. Percentages do not reflect non-respondents.

Fifty-three students (10.6%) identified themselves as Native American.

Respondents who identified most closely to Native American or Native Alaskan were asked to which Native American tribe he or she belongs. Of the 53 students who selected Native American or Native Alaskan, 24 students (45.3%) specified Cherokee. Eight students (15.1%) listed Choctaw, 6 (11.3%) listed Chickasaw, 3 (5.7%) listed Osage, and 3 (5.7%) specified Pottawatomie.

First generation.

To evaluate the percentage of first generation students in CASNR's incoming class, respondents were asked whether one or more of their parents, stepparents, or grandparents graduated from college. More than three-fourths of the respondents (f = 385; 76.8%) selected yes. Therefore, 22.6% (f = 113) identified as first generation students. Three students chose not to respond.

Size of hometown.

Nearly thirty percent (f = 128) of respondents lived in a rural area or small town of 10,000 people or less; 25.2% (f = 109) lived in a large town with a population ranging from 10,000-50,000 people; 23.6% (f = 102) of respondents lived on a farm or ranch; and 21.5% (f = 93) lived in a large city with a population of more than 50,000. Four students did not respond.

Family's association with agriculture.

Students were asked to indicate if their family was involved in the agricultural industry. The questionnaire presented a list of possible ways their immediate family may be involved with agriculture – respondents could select multiple answers. Respondents

most frequently indicated (f = 244; 48%) their families were not involved in agriculture. Of the families directly associated with agriculture, 200 (39.9%) are involved in livestock production and 107 (21.4%) in crop production (see Table 5). Other ways listed by individual respondents included agricultural education, Extension service, and Farm Bureau.

Table 5

Agricultural Involvement	f	%
Not involved in Agriculture	244	48.7
Livestock Production	200	39.9
Crop Production	107	21.4
Agricultural Laborer	67	13.4
Agricultural Processing	27	5.4
Agricultural Government Agency	17	3.4
Other	5	1.0
Total	501	100.0

Respondents' Family Involvement in Agriculture (n = 501)

Note. Percentages do not reflect non-respondents.

Academic major.

Respondents were asked to select their primary major from a list of CASNR major options. All majors in CASNR were represented by participants in the study except for Biosytems and Agricultural Engineering and Landscape Management. At OSU, the Biosystems and Agricultural Engineering program is shared between CASNR and the College of Engineering, Architecture, and Technology (CEAT). Students in this major are enrolled in CEAT's freshmen orientation course. No respondents selected Landscape Management as their primary major.

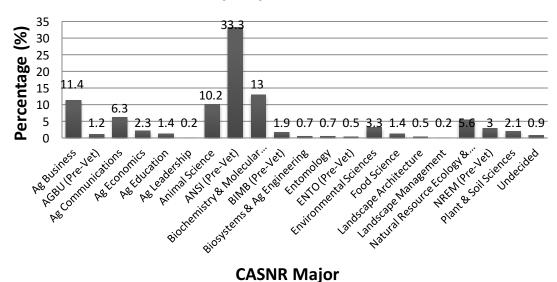
The five CASNR majors with a pre-vet option were listed as separate categories. These included Agribusiness; Animal Science; Biochemistry and Molecular Biology; Entomology; and Natural Resource Ecology and Management. Collectively, 37.6% (f = 186) of respondents selected a pre-vet option from one of the five major options. Thirtytwo percent (f = 160) of students selected Animal Science, Pre-Vet (see Table 6 and Figure 4).

Table 6

Major	f	%
Animal Science (Pre-Vet)	160	31.9
Animal Science	79	15.8
Biochemistry & Molecular Biology	59	11.8
Agribusiness	56	11.2
Natural Resource Ecology & Management	23	4.6
Agricultural Education	19	3.8
Agricultural Communications	18	3.6
Agricultural Economics	15	3.0
Environmental Sciences	12	2.4
Biochemistry & Molecular Biology (Pre-Vet)	9	1.8
Natural Resource Ecology & Management (Pre-Vet)	7	1.4
Entomology (Pre-Vet)	6	1.2
Entomology	5	1.0
Horticulture	5	1.0
Agribusiness (Pre-Vet)	4	0.8
Food Science	4	0.8
Landscape Architecture	4	0.8
Plant & Soil Sciences	4	0.8
Undecided	4	0.8
Agricultural Leadership	2	0.4
Total	495	100.0

Distribution of Respondents by Primary Major Classification (n = 495)

Note. Some respondents are pursuing double majors, but students were asked to select only their primary major.



Primary Major Classification

Figure 4. Primary Major Classification for Students.

High school organizational background.

A large percentage of respondents were involved in specific high school clubs, organizations, and teams prior to attending OSU. Students were asked to select any group with which they were involved throughout their high school careers. More than half of respondents were members of the National Honor Society (f = 258; 56.1%); team sports (f = 270; 53.9%); and the National FFA Organization (f = 262; 52.3%). Two hundred thirty-five students (46.9%) were involved in faith-based organizations (see Table 7). Seventy-nine (15.8%) were involved in other organizations not listed on the online survey. Common responses for other types of involvement were: Family, Career and Community Leaders of America (FCCLA) (f = 5); Beta Club (f = 4); Speech (f = 3);

Theatre or Drama (f = 3); and Yearbook Staff (f = 3). See Appendix I for a complete list of "other" high school organizations.

Table 7

Distribution of Respondents of fingh school of ganizational background (n = 501)		
Organization	f	%
National Honor Society (NHS)	281	56.1
Team Sports (Basketball, Football, Softball, Volleyball, etc.)	270	53.9
FFA	262	52.3
Faith-based Organizations	235	46.9
Student Council	173	34.5
Individual Sports (Equestrian, Golf, Tennis, Wrestling, etc.)	166	33.1
Music (Band, Choir, Orchestra, etc.)	129	29.6
4-H	109	21.8
Other	79	15.8

Distribution of Respondents by High School Organizational Background (n = 501)

Note. Students were asked to record any involvement throughout high school.

Home state.

Boy Scouts / Girl Scouts

Respondents graduated high school from 27 different states throughout the United States. Approximately 61% (f = 304) graduated high school in Oklahoma. The most common outside states were Texas (f = 106; 21.2%); California (f = 15; 3%); and Arkansas (f = 10; 2%). See Figure 5 for a display of states represented by respondents. Five students chose not to list the state in which they graduated high school.

32

6.4

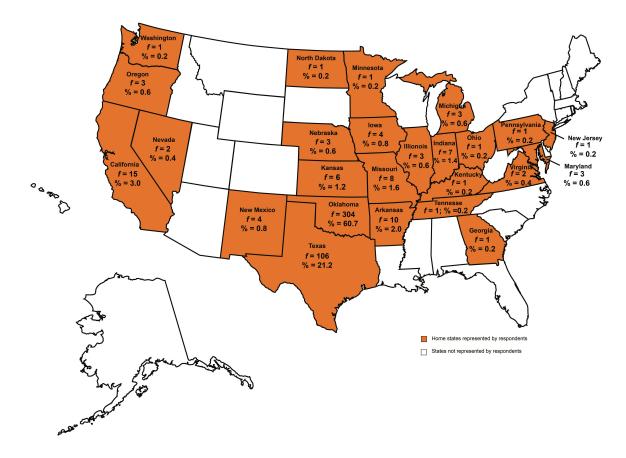


Figure 5. Distribution of Respondents by Home State.

Findings Related to Objective Two

Objective Two aimed to determine the usefulness of information sources in helping students make the decision to enroll in OSU CASNR.

The online questionnaire contained a question including multiple ways a prospective student may have learned about CASNR. For each source of information listed, respondents were asked to indicate whether or not they used a source and its level of usefulness. Students who indicated they did not use source were not calculated. Respondents who used a source were asked to rate the influence of the source on a 5point scale with 1 representing Not Useful, 2 representing Slightly Not Useful, 3 representing Slightly Useful, 4 representing Useful, and 5 representing Very Useful.

Five information sources were used by more than three-fourths of the respondents. The sources were visit to campus (f = 463; 92.4%), OSU website (f = 454; 90.6%), printed OSU publications (f = 391; 78%), CASNR website (f = 379; 75.6%), and printed CASNR publications (f = 376; 75%). Six additional sources were used by more than half of the respondents. These sourced included contact with OSU admissions representative (f = 373; 74.5%), OSU social media accounts (f = 355; 70.9%), contact with a CASNR representative (f = 332; 66.3%), CASNR social media accounts (f = 314; 62.7%), contact with a professor on campus (f = 287; 57.3%), and visits by OSU representatives to your school (f = 252; 50.3%).

A visit to campus (f = 382; 76.3%) and the OSU website (f = 291; 58.0%) influenced the largest percentage of respondents. Visit to campus received the highest mean level of influence (M = 4.33). Table 8 shows all information sources and their rank among respondents.

Table 8

Influence of Information Sources (n = 498)

Information Sources	M (rank)	SD	Percent Used (%)
Visit to campus	4.33 (1)	.97	92.4
OSU website	3.80 (2)	1.2	90.6
CASNR website	3.80 (2)	1.2	75.6
Contact with CASNR representative (ambassador, coordinator, etc.)	3.77 (4)	1.2	66.3
Contact with OSU admissions representative	3.71 (5)	1.1	74.5
Contact with a professor on campus	3.60 (6)	1.3	57.3
Participation in 4-H and/or FFA events on campus	3.60 (6)	1.6	41.9
Printed CASNR publications	3.59 (8)	1.2	75.0
Printed OSU publications	3.58 (9)	1.2	78.0
Participation in OSU on-campus recruitment program	3.57 (10)	1.4	49.9
Interaction with CASNR at trade show or off campus event	3.55 (11)	1.5	43.7
Participation in other events on campus	3.32 (12)	1.5	41.7
OSU social media accounts	3.31 (13)	1.3	70.9
CASNR social media accounts	3.26 (14)	1.3	62.7
Visits by OSU representative to your school	3.22 (15)	1.5	50.3
Visits by CASNR representative to your school	2.66 (16)	1.5	28.9

Note. Evaluations on a 5-point scale (5 = Very Useful, 1 = Not Useful)

Satisfaction of Information Received

Participants were asked if they received the information needed to make an informed decision about which academic major and college to select. Nearly 95% (f = 475) of respondents were satisfied with the information, while only 2.0% (f = 10) of respondents were not satisfied with information (see Table 9). Sixteen students did not respond to this question.

Table 9

Satisfaction of Information Received (n = 485)

Response	f	%
Yes	475	94.8
No	10	2.0
No Response	16	3.2

Participants who responded no were asked to specify what additional information would have been helpful. Responses included: "Wish there would have been more information provided;" "Want to know exactly what careers I can pursue after college with this degree;" "Slow down and make time to talk to each student individually during orientation to find out if they understand the major."

Findings Related to Objective Three

Objective Three examined external influences (institutional characteristics, significant persons, degree program characteristics) in a student's decision to enroll in OSU CASNR.

Institutional Characteristics

Participants were asked to rank the level of influence of selected university characteristics on their college-choice decision.

Academic reputation of the university was the most influential institutional characteristic in the study with a mean level of influence of 4.39 (see Table 10).

Table 10

Institutional Characteristic	M (rank)	SD
Academic reputation of the university	4.39 (1)	0.82
Preparation for employment	4.27 (2)	0.89
Quality and reputation of the faculty	4.14 (3)	0.95
Quality of facilities	4.13 (4)	0.96
Scholarships	3.99 (5)	1.18
Quality and reputation of students	3.78 (6)	1.13
Availability of other financial aid	3.62 (7)	1.35
Cost (tuition, room, board)	3.57 (8)	1.27
City in which campus is located	3.56 (9)	1.36
Campus safety	3.54 (10)	1.24
Distance from home	3.54 (10)	1.40
Class size	2.88 (12)	1.23
Prominence of university athletic teams	2.66 (13)	1.45

Influence of Institutional Characteristics (n = 498)

The second most influential characteristic was preparation for employment (M = 4.27). Nine institutional characteristics had a mean level of influence greater than 3.50.

Only two characteristics had a mean level of influence under 3.0. The least influential institutional characteristic was prominence of university athletic teams with a mean level of influence of 2.66.

Significant Persons

Significant persons were among the external factors influencing incoming students to enroll in OSU CASNR. Respondents rated the level of influence on a 5-point scale.

Parents or guardians influenced the largest percentage of respondents (53.5%). Other individuals influencing a high percentage of students were other relatives (34.8%), OSU CASNR alumni (33.4%), and OSU CASNR faculty and staff (32.8%). The individual with the highest mean influence on the college-choice decision of entering respondents was a parent or guardian (M = 3.58; SD = 1.34), followed by CASNR alumni (M = 3.23; SD = 1.56). A parent or guardian was the only item rated as "Influential." Two individuals with "Slightly Not Influential" ratings included an extension youth specialist (M = 2.16) and a high school guidance counselor (M = 2.28). Other selected individuals were rated as being "Slightly Influential" (see Table 11).

Table 11

Influence of Significant Persons (n = 501)

Individual	M (rank)	SD	Percent Used (%)
Parent or guardian	3.58 (1)	1.34	53.5
OSU CASNR alumni	3.23 (2)	1.56	33.4
OSU CASNR faculty or staff	3.20 (3)	1.55	32.8
OSU CASNR current student	3.18 (4)	1.53	32.8
Other relative	3.11 (5)	1.45	34.8
High school agricultural science teacher/FFA advisor	3.03 (6)	1.62	30.0
Friend in high school or college	2.95 (7)	1.42	33.2
OSU alumni (non-CASNR)	2.95 (7)	1.56	28.8
Other high school teacher	2.69 (8)	1.46	14.4
High school guidance counselor	2.28 (9)	1.33	14.6
Extension youth specialist (4-H educator/agent)	2.16 (10)	1.50	11.0

Note. Evaluations on a 5-point scale (5 = Very Useful, 1 = Not Useful)

Degree Program Characteristics

Participants were asked to think about their intended major and rank the influence of degree program characteristics on their college-choice selection. Seven degree program characteristics were included in the questionnaire.

The most influential degree program characteristic was career opportunities available for graduates (91.5%; M = 4.57). Quality and reputation of the courses influenced the second most number of students (83.8%; M = 4.26)

Career opportunities for graduates was the only degree program characteristic with an influence rating of Very Influential. Number of students in the major and class size were ranked as Slightly Not Influential (see Table 12).

Table 12

Degree Program Characteristic	M (rank)	SD
Career opportunities available for graduates	4.57 (1)	0.71
Quality and reputation of the courses	4.26 (2)	0.86
Quality of facilities	4.22 (3)	0.93
Quality and reputation of the faculty	4.10 (4)	0.97
Quality and reputation of the students	3.67 (5)	1.10
Class size	3.11 (6)	1.26
Number of students in the major	2.80 (7)	1.25

Influence of Degree Program Characteristics (n = 501)

Note. Evaluations on a 5-point scale (5 = Very Useful, 1 = Not Useful)

Findings Related to Objective Four

Objective Four sought to examine the college-choice timeline (began the decision-making process, finalized the decision to attend OSU, selected a major within OSU CASNR).

First-year students were asked three questions to establish a college-choice decision timeline: (a) When they began their decision making process; (b) When they finalized their decision to attend Oklahoma State University; and (c) When they finalized their major selection.

To determine when participants began the college-choice process, they were asked to select if they began exploring college options before 9th grade, during 9th grade, during 10th grade, during 11th grade, during 12th grade, or at another time.

The largest percentage of respondents (f = 149; 29.7%) began the college-choice process during 11th grade. However, more than one-fourth (f = 137; 27.3%) of respondents indicated they began exploring college-choice options before 9th grade. Only 10% of respondents waited until senior year to begin the decision making process (see Table 13).

Table 13

Decision Process Began (n=498)

Grade	$f(\operatorname{rank})$	%
During 11th Grade	149 (1)	29.7
Before 9th Grade	137 (2)	27.3
During 10th Grade	89 (3)	17.8
During 9th Grade	66 (4)	13.2
During 12th Grade	51 (5)	10.2
Other	6 (6)	1.2

Next, participants were asked when they finalized their decision to attend Oklahoma State University. They were given the following response options: Before 9th grade, during 9th grade, during 10th grade, during 11th grade, during 12th grade (and which semester), or during the enrollment process. Participants could also select "other" and indicate an individualized response.

Approximately 63% of respondents made the decision to attend Oklahoma State University during their senior year of high school. Nearly 16% of respondents finalized their university selection during 11th grade (see Table 14).

Table 14

Grade	$f(\operatorname{rank})$	%
During 12 th Grade, 1 st Semester	175 (1)	34.9
During 12 th Grade, 2 nd Semester	143 (2)	28.5
During 11 th Grade	78 (3)	15.6
During 10 th Grade	26 (4)	5.2
Before 9 th Grade	40 (5)	8.0
During the enrollment process	17 (6)	3.4
During 9 th Grade	15 (7)	3.0
Other	4 (8)	0.8

OSU Decision Finalized (n=498)

Participants also were asked to indicate the point in time they finalized their selection of a major. Respondents most commonly selected a major during the first semester of 12^{th} grade (f = 121; 24.2%). A total of 37% (f = 201) students made their final decision regarding academic major during their senior year of high school. Notably, 81 students (16.2%) indicated they selected their major before entering 9th grade, while 81 students (16.2%) said they did not decide until going through the enrollment process (see Table 15).

Table 15

Major Selection Finalized (n=498)

Grade	$f(\operatorname{rank})$	%
During 12 th Grade, 1 st Semester	121 (1)	24.2
Before 9 th Grade	81 (2)	16.2
During the enrollment process	81 (3)	16.2
During 12 th Grade, 2 nd Semester	80 (4)	16.0
During 11 th Grade	59 (5)	11.8
During 10 th Grade	26 (6)	5.2
During 9 th Grade	22 (7)	4.4
Have not decided	16 (8)	3.2
Other	12 (9)	2.4

Other Applications

Respondents were asked to select the institutions they applied to as a prospective student. Students could select multiple choices from the list provided. If a school he or she applied to was not on the list, respondents were asked to select Other and type the institution's name.

Two hundred two students (40.3%) did not apply to any institutions other than Oklahoma State University. The institution most commonly applied to from the list provided was Texas A&M University (16%; f = 80). Next was the University of Oklahoma (10.8%; f = 54). Other competing universities included Kansas State University (7.4%; f = 37), Texas Tech University (7.2%; f = 36), and the University of Arkansas (4.4%; f = 22). Each of these institutions offer agricultural degree programs except for the University of Oklahoma.

Findings Related to Objective Five

Primary Reason for Enrolling in CASNR

Objective Five served to identify each student's self-reported primary reason for enrolling in OSU CASNR. Participants were asked to write their primary reason as an open-ended, short answer response. Four hundred eighty-two students responded. Nineteen chose not to respond. When examining the responses, I first analyzed the data for key words and phrases. Thirteen key words and phrases were identified. Next, the researcher developed a coding system and used SPSS to calculate frequency and percent of responses.

Ninety-five respondents (19.7%) specified the primary reason for enrolling in CASNR was preparing for vet school or to be in the animal science program. Other top reasons included: academic reputation (f = 56; 11.6%); agricultural background or passion (f = 54; 11.2%); and major is in CASNR (f = 47; 9.8%).

The following are examples of primary reasons provided:

- "Great agricultural program and scholarships actually made it cheaper for me to attend here than in my home state at Texas A&M University."
- "I feel a sense of community within CASNR."
- "Oklahoma State CASNR offered me a very welcoming atmosphere. When I came on my campus visit, I met with my prospective advisor, which made me feel like I was important."
- "I like being able to still be connected to agriculture while earning a degree to prepare me for the medical field."

Seventy-two students (14.9%) reasons did not fall into one of the 13 categories and were listed as Other. Table 16 shows the distribution of student's self-reported primary reason for enrolling in CASNR.

Table 16

Primary Reason for Enrolling in CASNR (n = 482)

Primary Reason	f	%
Prepare for vet school/animal science program	95	19.7
Academic reputation	56	11.6
Agricultural background/passion	54	11.2
Major is within CASNR	47	9.8
Career preparation	30	6.2
Family-like atmosphere	29	6.0
Scholarships	25	5.2
Friend or family member attended	15	3.1
Quality of professors/faculty advising	14	2.9
Friendly/welcoming interaction	13	2.7
Opportunity (growth, success, leadership)	13	2.7
Hands-on learning	10	2.1
Prepare for medical school	10	2.1
Other	72	14.9
Total	482	100.0

CHAPTER V

CONCLUSIONS, RECOMMENDATIONS, AND DISCUSSION

Chapter V describes the conclusions and implications from the study as well as recommendations for practice, recommendations for future research, and a final discussion section. Conclusions are listed by research objectives.

Conclusions and Implications Related to Objective One

Objective One sought to describe selected personal characteristics (age, sex, ethnicity, academic major, home state, size of hometown, agricultural background, organizational background) of students enrolled in the Fall 2015 OSU CASNR Freshmen Orientation course (AG 1011).

The typical respondent in this study is an 18-year-old, Caucasian (non-Hispanic) female, majoring in animal science. In the Fall 2015 semester, OSU CASNR enrolled 2,408 undergraduate students, of which 40% (f = 975) were Animal Science majors (OSU, 2015). The frequency of incoming females has increased by 123 female students

(55.4%) since the Fall of 2012 (Cramer, 2013) and 39 students (12.7%) since the Fall of 2014 (Norris, 2015). The National Center for Educational Statistics (NCES, 2015) also reported a higher female enrollment than male in the Undergraduate Enrollment Report. As reported by NCES (2015), 9.8 million female undergraduate students made up approximately 56% of the total undergraduate enrollment in four-year institutions in the United States in 2013. Females accounted for nearly 60% of the CASNR undergraduate student population in the Fall 2015 semester (OSU, 2015). Conversely, males accounted for 52% of the OSU student population, while females made up 48% as reported by Institutional Research and Information Management (OSU, 2015).

An interesting finding emerging from these data is the large percentage of Caucasian females in the population. Therefore, it can be concluded incoming students in CASNR are not diverse. How can CASNR appeal to a more ethnically diverse group of prospective students? What are additional ways COAs can appeal to additional ethnical demographics? Also, how do colleges and universities attract a male population that often fails to enroll in higher education (Irvine, 2011)?

According to Irvine (2011), males do not see immediate value in attending higher education institutions. Norris (2015) said one way to encourage males to enroll in higher education is to ensure the value of their potential education. Goecker et al. (2015) recommended encouraging males to enroll in CASNR by explaining the high demand for graduates in agricultural, food, or natural resources related fields. Many prospective students may not be familiar with agriculture, so they may not understand it is a vast and complex industry encompassing professionals from production to law (Herren, Cartmell, & Robertson, 2011). Similarly, Rayfield et al. (2013) suggested students not involved in

school-based agricultural education programs in high school must be aware of the opportunities within the field to meet the need for human capital. A brief explanation of the industry and various career opportunities available to CASNR students may encourage more enrollment by males.

Efforts should be made to implement recruitment messages and information sources targeted at different sexes and ethnicities. Typically, CASNR creates recruitment campaigns and materials encompassing prospective students as a whole. However, this research yields implications for revisiting strategies directed at male students. According to Weaver-Hightower (2009), higher education institutions concerned about male enrollment should promote organized programs, competitive activities, and mentorship opportunities. Further research is recommended for evaluating factors influencing males in the college choice process. Future CASNR information sources created for the male population should incorporate findings of this research.

The typical respondent in this study was not a first generation college student. However, nearly a quarter of participants indicated they were first generation college students. An implication emerging from this finding is for OSU and CASNR representatives to consider that this group of incoming students may face many challenges during the college-choice process. According to Williams and Warren (2014), challenges may include misperceptions about college, unfamiliarity with college terminology, or lack of support from home. CASNR representatives should continually develop strategies to assist these students.

Almost half of the respondents' families have no involvement in agriculture. This finding does not support a conclusion of Wildman and Torres (2001), who said prior

experience in agriculture was the most influential factor in selection of a major. However, it does align with Herren's (2005) study at OSU, which showed 52% of respondents' families were not involved in agriculture. Therefore, it can be concluded incoming students' families are not commonly involved in agriculture. As Rayfield et al. (2013) suggested, students who have interests and abilities in science and math but are not part of a school-based agricultural education program or do not come from a family involved in agriculture must be made aware of the opportunities in the field of agriculture.

Prior to attending OSU in the Fall of 2015, the typical respondent was a member of the National Honor Society in high school, participated in team sports, and was a member of FFA.

From this finding, it can be concluded incoming CASNR students demonstrated excellence in the areas of scholarship, leadership, service, and character while in high school (National Honor Society, 2016). This research yields powerful implications for executing marketing campaigns highlighting characteristics of CASNR relating to aspects of NHS, such as undergraduate research, service in clubs and organizations, and student leadership opportunities. Furthermore, CASNR should emphasize its highly regarded academic research and award-winning faculty members. Additional research is warranted to see if students' involvement in NHS is positively correlated to academic reputation of the university being selected as the most influential characteristics in the study. In regard to overall high school organizational background, it would be advantageous to see if incoming CASNR students are more involved than typical incoming students. If so, does this play a factor in their college-choice decision as CASNR is home to more than 60 student organizations and competitive teams?

The typical respondent was a member of the National FFA Organization in high school. This conclusion aligns with findings from Bobbitt (2006); Herren (2005); Norris (2015); Rayfield et al. (2013); and Washburn et al. (2002). The other common agriculture- and life-sciences related club, 4-H, showed low participation from students in the study in comparison to FFA. Based on these findings, I conclude the typical incoming student was not involved in 4-H during high school. This finding aligns with Bobbitt (2006), Rayfield et al. (2013), Williams and Warren (2014), and (Norris, 2015). As Oklahoma 4-H and Youth Development is housed on the OSU campus, how can CASNR better target and communicate with students in Oklahoma 4-H? Should CASNR pair with the Division of Agricultural Sciences and Natural Resources and Oklahoma Cooperative Extension Service to create a recruitment marketing campaign directed at Oklahoma 4-H'ers?

Although the typical respondent graduated from high school in Oklahoma, nearly 40% of respondents were out-of-state students. In-state students accounted for approximately 70% of OSU's undergraduate student population in the Fall 2015 semester, while out-of-state students made up approximately one fourth (OSU, 2015). These data show CASNR's non-resident enrollment percentage is actually higher than the university's (OSU, 2015). From this finding, I conclude CASNR's recruitment efforts in attracting out-of-state students are effective. Continual strategies to recruit non-resident students should be implemented.

Conclusions and Implications Related to Objective Two

The second objective aimed to determine the usefulness of information sources in

helping students make the decision to enroll in OSU CASNR.

Campus visits were useful and the most used source of information by incoming students. From this finding, it can be concluded prospective students should be encouraged to visit campus. Nearly all literature on college-choice agrees with this conclusion (Bobbitt, 2006; Herren, 2005; Rocca & Washburn, 2005; Washburn et al, 2002). This finding also suggests students who are serious about enrolling are likely to visit campus and actively seek information about OSU (Washburn et al., 2002). Attempts should be made to provide an overall favorable impression of CASNR and OSU during campus visits. Faculty, staff, and ambassadors involved in CASNR Prospective Student Services should make an effort to tailor campus visits to students' academic interests and schedule meetings with prospective students and a faculty member during the visit. CASNR faculty and staff should consider quality and reputation of the faculty was ranked third out of the institutional characteristics and keep this in mind as faculty time constraints often impede faculty's ability to visit with incoming students (Washburn et al., 2002). CASNR representatives should continue to implement follow-up communication procedures after student visits.

According to Rayfield et al. (2013), students interact and relate to technology on a regular basis. Thus, it is no surprise websites on the Internet were reported as top influential information sources in this study. The typical respondent in this study used and was influenced by both OSU and CASNR websites. This conclusion aligns with Shrestha et al. (2011), who said, university and college webpages play a critical role in college-choice, as today's students are technologically savvy. According to Washburn et al., (2002), websites should be used to encourage students to visit campus and participate in on-campus recruitment activities, and they should provide contact information of faculty and staff to prospective students who wish to communicate with professors in their areas of interest. One implication emerging from these data is for the college to maintain an attractive, user-friendly, and up-to-date website that accurately and positively represents CASNR and its academic departments and degree programs.

Although the Internet plays a critical role in the college-choice process, print publications such as college brochures and postcards still are valuable information sources for respondents. A large percentage of respondents used and were influenced by OSU print publications as well as CASNR print publications. Both were ranked Useful in the college-choice process. This conclusion is in agreement with the findings of other studies (Bobbitt, 2006; Herren, 2005; Rocca & Washburn, 2005). Segler-Conrad et al. (2004) found university publications rated as highest importance, and Robinson et al. (2007) found they were the second most important source of information used by students enrolling into a COA. CASNR should continue to use resources and create informative, eye-catching print publications. For example, the CASNR communications team in Agricultural Communications Services and University Marketing should be used.

As mentioned, the Millennial Generation is different than previous generations in the way prospective students seek information (Wandel, 2008). The use of social media is one of these key differences. In this study, more than one-third of respondents were influenced by OSU social media accounts and more than a quarter were influenced by CASNR social media efforts. From these data, I can conclude social media is an effective means of communicating with prospective students. Therefore, COAs should consider using social media platforms to engage with potential students if they are not already.

CASNR should continue to use resources to target these students via social media. Further research on recruitment efforts should focus on what ways social media influences college choice.

Other implications stemming from this study are largely directed at recruitment efforts currently being used by CASNR and other COAs nationwide. Having students visit campus for events has commonly been viewed as a prime opportunity to recruit for the university and the academic college hosting the event (Rayfield et al., 2013). However, participation in 4-H and FFA events on campus was not influential to the typical respondent in this study. This conclusion is supported by Rayfield et al.'s (2013) study at Texas A&M University, which found nearly half of respondents were not influenced by 4-H or FFA events on campus. If indeed 4-H and FFA events are not influencing nearly three-fourths of incoming students to enroll in CASNR, consideration should be given to how funds for recruitment efforts are spent. A strong implication developing from this conclusion is the need for COAs to revisit strategies to attract nontraditional agriculture students.

Visits to high schools by CASNR representatives have little impact on the college-choice process for incoming students. An OSU representative visited approximately half of participants' high schools, and almost one fourth of respondents were influenced by this information source. However, the typical respondent did not experience a visit from a CASNR representative to their school and less than 10% were influenced by this source. This information source had the lowest percentage use and mean level of influence. OSU representatives ranked 11 of the 16 information sources, while CASNR representatives ranked last. When an OSU representative visits schools, do

they have adequate time to explain what makes OSU CASNR unique? Would it be more impactful for a CASNR representative to visit these schools additionally? An implication stemming from this finding is the need for CASNR to discuss implementing more visits to high schools throughout Oklahoma and the U.S.

Respondents were satisfied with the information sources they received and could make an informed decision about college choice and selection of a major. Current information sources distributed by OSU and CASNR are appropriate for prospective students.

Conclusions and Implications Related to Objective Three

Objective Three examined external influences (institutional characteristics, significant persons, degree program characteristics) in a student's decision to enroll in OSU CASNR.

Institutional Characteristics

Chapman's (1981) model identified characteristics of the institution that are influential in a student's college-choice process. Academic reputation of the university was the highest-valued institutional characteristic for respondents in this study. From this finding, it can be concluded the academic reputation of OSU is influential to prospective students' college-choice decision. Bobbitt (2006), Herren (2005), Rocca and Washburn (2005), Washburn (2002), and others also found academic reputation to be influential.

Another conclusion stemming from these data is students' believe OSU prepares them for a career. Preparation for employment was the second highest ranked

institutional characteristic. Bobbitt (2006), Herren (2005), Rocca and Washburn (2005), and Washburn (2002) all found opportunities after graduation as a key influence in their studies. As Herren (2005) suggested, one implication is to inform prospective students going through the recruitment process about the variety of full-time careers and internships available to graduates.

The top five institutional characteristics in this study were academic reputation of the university, preparation for employment, quality and reputation of the faculty, quality of facilities, and scholarships. Interestingly, although Chapman (1981) found cost as an important factor in college choice, financial aid and cost fell to the middle of the rankings in this study. From these findings, it is concluded professional opportunities are more influential than financial obstacles for college-choice selection.

The primary implication for these institutional characteristic findings relates to the message that should be shared with prospective students. Campus visits, conversations, and information sources should focus student attention on the respectable academic reputation of OSU, career preparation and opportunities for graduates, the award-winning faculty members, state-of-the-art facilities, and available scholarships.

Significant Persons

Parents or guardians are the most significant individuals impacting incoming students' decision to attend OSU and enroll in CASNR. The strong influence of parents and guardians in the college process is well documented in the literature (Bobbitt, 2006; Herren, 2005; Rocca & Washburn, 2005; Segler-Conrad et al., 2004; Washburn et al., 2002; Williams & Warren, 2014). According to Williams and Warren (2014), parents are

and will remain a factor in the decision of students to attend an institution. Colleges and universities must consider parents and continually implement and create ways to include them in recruitment efforts. Additionally, the college and university should design information sources to target parents and guardians specifically (Washburn, 2002).

Also noteworthy, OSU CASNR alumni, OSU CASNR faculty or staff, and OSU CASNR current students each influenced nearly one third of students in this study. Based on these findings, I conclude persons with personal experience in the college are influential to prospective students. A powerful recommendation of this conclusion is to use these individuals as representatives of OSU, CASNR, and academic departments during off-campus trade shows and on-campus recruitment events, such as Orange Friday and Future Collegiate Leaders Conference. Additionally, could CASNR alumni be used as a resource for implementing more high school visits as discussed in objective two? As CASNR alumni live across the state and nation, having these selected individuals visit high schools on behalf of the college would be more time efficient and financially resourceful than sending representatives from the Stillwater campus. Trainings should be implemented to provide alumni with resources such as a presentation, information about CASNR's academic departments, majors, and study options, admissions requirements, current recruitment materials, career opportunities after graduation, and more.

While not all students are exposed to high school agricultural education or agricultural science teachers, the influences these individuals had on incoming students who did participate was apparent. In fact, they influenced nearly one third of all respondents. This finding aligns with Washburn's (2002) study, which suggested COAs continually build relationships with high school agricultural science teachers and FFA

advisers. The college also should send these individuals information about OSU and CASNR to distribute to interested students. Event opportunities to strengthen these relationships include agricultural education teacher conferences, various state FFA conventions and National FFA Convention.

Other high school teachers and Extension youth specialists did not influence the typical respondent and were ranked Slightly Not Influential. How can CASNR work to inform these individuals about the opportunities available to students in their programs?

Overall, based on the findings in this study regarding influence from significant persons and analyzing the large variability among standard deviations for each item, it can be concluded prospective students turn to many different people in the college-choice process. Therefore, including these significant persons in the recruitment process is a critical implication.

Degree Program Characteristics

The conclusions for degree program characteristics are very similar to those for institutional characteristics. Based on the findings, it can be concluded prospective students consider academic degree programs providing an abundance of opportunities for graduates. Career opportunities available for graduates was the most influential degree program characteristic for respondents in this study. This implies students should be presented with information on career options with which specific majors are commonly associated. CASNR print publications and website content including this information should be generated to provide students with accurate information regarding career possibilities.

Quality and reputation of the courses, quality of facilities, and quality and reputation of the faculty each influenced the typical respondent. This conclusion aligns with prior literature identifying quality and reputation of academic courses, departments, and faculty as influential in the college choice process (Bobbitt; 2006; Davis & Van Dusen, 1975; Herren, 2005; Rocca et al., 2004; Shrestha et al., 2011; Washburn, 2002). These findings suggest CASNR Academic Programs, CASNR Prospective Student Services, and CASNR Communications should consider these influential degree program characteristics when creating information sources. Perhaps there could be social media spotlights regarding faculty members, facilities, and unique courses? Print publications and the college website could also be used to tell these stories. Overall, CASNR information sources should highlight these influencing characteristics for each major and department.

Conclusions and Implications Related to Objective Four

Objective four sought to examine the college-choice timeline (began the decisionmaking process, finalized the decision to attend OSU, selected a major within OSU CASNR).

More than a quarter of respondents began the process of choosing a university before their freshman year of high school. From this finding, one can conclude prospective students should begin receiving information about OSU and CASNR as early as junior high school.

Respondents most frequently finalized their decision to attend OSU and their selection of a major during the first semester of 12th grade. This result is in agreement

with findings by Bobbitt (2006); Herren (2005); and Rocca and Washburn (2005). Furthermore, when finalizing a major selection, comparable percentages of respondents selected either Before 9th Grade; During the Enrollment Process; During 12th Grade, 2nd Semester; or During 11th Grade. Therefore, one can conclude students are inconsistent in this step of the enrollment process.

By the time students had finished 11th grade, a significant percentage of respondents had begun the college-choice process. Studies from previous literature also reflected this early start (Bobbitt, 2006; Herren, 2005; Rocca & Washburn, 2005; Washburn, 2002). Based on this finding, it can be concluded the typical student does not wait until senior year to explore college options. A powerful implication of this conclusion is for communication and recruitment of prospective students to start before they enter high school. According to Washburn (2002), most applications for admission occur at the same time most college recruitment begins – junior or senior year of high school. If a student is not reached through CASNR recruitment efforts until junior or senior year, could it be too late? Students who begin thinking about college early, but do not consider OSU or CASNR, may not receive information from OSU or CASNR until they have already determined their college choice. Therefore, CASNR Prospective Student Services should make recruitment information available to students when they begin thinking about college rather than waiting until the process is underway. Would recruitment materials, including general information about OSU, CASNR, and career opportunities, be beneficial for students finishing junior high or entering into their first high school years? And should more specific information, about majors and study options, be distributed during 11th and 12th grade when approximately half of respondents

selected a major?

Conclusions and Implications Related to Objective Five

The fifth objective guiding this study identified incoming students' self-reported primary reason for enrolling in CASNR.

The largest percentage of respondents specified his or her primary reason for enrolling in CASNR was preparing for vet school or a career in the animal science industry. This finding aligns with the findings for academic major classification, as more than one third of respondents were enrolled in a pre-vet option. Therefore, it can be concluded numerous information sources targeting pre-veterinarian study options need to be available for prospective students. Additionally, it may be beneficial to have faculty members from the five different CASNR academic majors with pre-vet options available to meet with students during on- and off-campus recruitment events as well as prospective student visits. It is also recommended the CASNR prospective student coordinator work closely with the OSU Department of Animal Science student success coordinator, due to the large percentage of animal science pre-vet majors.

The second and third most commonly specified reasons related to academic reputation of CASNR and respondents' passion for agriculture. From this finding, it can be concluded the university and college's reputation is highly valued among prospective students. It can also be concluded CASNR offers majors and study options appealing to students who are passionate about the agricultural industry. Individuals should keep these primary reasons in mind when recruiting prospective students. Information sources and visits should use specific terms to highlight academic reputation and explain how

CASNR serves the land-grant mission and enhances the industry.

Additionally, one tenth of respondents' written responses were similar to "my major is in CASNR." Does this finding suggest these students did not experience a personal conversation with a CASNR representative or feel connected to the college during the recruitment process? Although a student's prospective major is housed in CASNR, are they also aware of the unique CASNR facts such as a 13:1 student to faculty ratio and the largest scholarship allotment on OSU's campus? Do prospective students understand the structure of the university system? The college should provide each student interested in one of CASNR's degree programs with information not only about the quality and characteristics of the program but also the college.

Recommendations for Practice

The purpose of this study was to identify recruitment efforts and factors influencing the undergraduate college-choice process for first-year students enrolled in OSU CASNR. The following recommendations for practice were pulled from the study's practical findings to advance recruitment efforts for CASNR and COAs nationwide.

This study represents the viewpoint of respondents in the Fall 2015 CASNR AG 1011 course at OSU who voluntarily completed the online survey; thus, there is the potential for bias.

Considering parents and guardians tend to be the most influential person in a student's college decision, care should be taken to not only recruit students to the university but also to influence their parents or guardians. Additionally, materials should be developed to inform parents or guardians about institutional and degree program characteristics. As OSU CASNR alumni were noted the second most significant individuals in the college-choice process, it is recommended CASNR Prospective Student Services work with the CASNR Alumni Board to disseminate college information (Shrestha et al., 2011). This will ensure CASNR alumni have updated and accurate information if questioned by prospective students. Future recruitment strategies should consider ways to include significant persons in the recruitment process.

As identified, campus visits are one of the most influential information sources used by prospective students. Prospective students should be strongly encouraged to visit campus. As Herren (2005) suggested, institutions need to continue to increase opportunities to attract prospective students onto their campuses and strive to provide a welcoming experience. Prospective students should also be given the opportunity to have a personal conversation with a professor during their campus visits.

Websites are an important resource and can used by CASNR representatives as a communication tool with prospective students. In this study, the university website was ranked the second most useful source of information, while the college website was ranked fourth of 16 items. Therefore, the college must continue to develop an up-to-date, user-friendly site with quality information. Further research should be conducted to examine specific ways prospective students used the CASNR website during the college-choice process. Although websites are influential, print publications such as brochures and post cards continue to be useful information sources for prospective students. Resources should continue to be allocated to development of these publications. The Millennial Generation has characteristics and interests that are different than previous generations (Rayfield et al., 2013), such as social media. COAs should explore all means

of social media (i.e. Facebook, Instagram, Twitter, Flickr, LinkedIn, Snapchat) to determine its effectiveness in communicating with today's prospective students.

As academic reputation is influential with regard to institutional characteristics, the university should maintain a respectable and positive academic image. Efforts to increase this reputation must be made. Higher education institutions should research how prospective students evaluate academic reputation and study effective ways to make academic excellence and research produced at universities accessible to prospective students. Additionally, since the second most influential institutional characteristic was preparation for employment, university personnel should include information on internships, capstone courses, and career services resources and events in recruitment discussions.

CASNR and COAs nationwide have typically enrolled a high percentage of students with an agricultural background, often with involvement in 4-H or FFA (Rayfield et al., 2013). While it is not recommended administration abandon efforts to recruit students active in these youth agricultural organizations, it is critical that additional populations receive attention from colleges and universities (Rayfield et al., 2013). As the population changes and society becomes further removed from production agriculture, perhaps it is time to revisit common recruitment strategies to attract nontraditional students into COAs.

Considering when students are beginning the college-choice process, prospective students should begin receiving information about OSU and CASNR before they enter high school. However, the majority of prospective students finalize their decision of a university or major until their final year of high school. According to Rocca et al. (2004),

campus visits are most influential during the final stages of choosing a college. Research should be conducted to study when students most commonly sign up for a campus visit at OSU.

Given the large percentage of incoming first-year students in CASNR without an agricultural background, it is recommended the college provide an agricultural literacy course for all CASNR freshmen.

CASNR personnel should consider the common primary reasons for enrollment as specified by respondents of this study when developing and implementing future recruitment strategies. Overall, it is recommended information be continually gathered to identify current trends and needs of prospective students. This will ensure recruitment efforts are successful for years to come.

Recommendations for Future Research

Based on the findings, conclusions, and implications of this study, the researcher presents the following recommendations for research.

As the typical college student is ever changing (Herren et al., 2011), it is important to continue researching factors influencing the student college-choice process.

Because parents or guardians tend to be the most influential person in their student's college-choice, further research should be conducted to identify characteristics of these individuals and which external factors are most influential to parents. Doing so will allow parents and guardians to be included in the college-choice process and provide background information for creating recruitment material specific to these individuals.

Additionally, research should be conducted to analyze the variety of ways CASNR alumni are influential to prospective students.

CASNR's incoming students considered campus visits useful in the collegechoice process. Research should be conducted to identify what aspects of the campus visit are most influential. Additionally, research should be conducted to compare perceptions of students who had formal visits with CASNR representatives (CASNR ambassadors, CASNR Prospective Student Coordinator, or faculty members) during campus visits and those who did not.

Regarding web pages and print publications used for prospective student recruitment, research should be conducted to determine effectiveness and perceptions of current CASNR websites and print publications. Does the website contain enough interactivity? Does it lack information needed in the undergraduate college choice process? Did the print publications you received make you feel like you would be a good fit for the CASNR family? Did the print publications you received excite you about OSU and/or CASNR?

This research may provide insight into innovative ways to attract prospect students (Baker et al., 2011).

Further research should be conducted to evaluate how potential students use social media in the college-choice process. As social media platforms portray academic reputation, campus culture, university traditions, and more to prospective students (Wandel, 2008), further information on how incoming students use social media would be vital to higher education institutions.

With academic reputation being a key factor, research should be conducted to

determine the attributes of academic reputation a prospective student finds to be the best marks of a prestigious institution (Herren, 2005).

Further recommendations for future research involve delving further into the correlation of perceptions of factors influencing college choice and personal characteristics. Specifically, research should be conducted to determine influential factors for students in each specific major. It could also be beneficial to study variances among perceptions of students from agricultural backgrounds and those from non-agricultural backgrounds. Additionally, comparing perceptions of males versus females may provide the information needed to create strategies to increase male enrollment in the college.

Discussion

Many aspects and factors play a role in a prospective student's choice of a university and degree program. Understanding these factors of the college choice process is essential to colleges and departments of agriculture in higher education and guides the need for further research. As the agricultural industry struggles annually to fill positions with qualified graduates (Goecker et al., 2015), this fact should not sit well for COAs who aim to prepare students for a career in the nation's most important industry.

COAs should evaluate strategies to effectively attract students in an "effort to continue producing the future professionals needed by the agricultural and related industries" (Rocca & Washburn, 2005, p. 32). The traditional means of recruiting students into COAs must be revisited, as most literature in college choice was conducted several years ago (Rayfield et al., 2013). According to Upcraft et al. (2005), the time to invest in incoming students and the future of the world is now. Similarly, Shrestha et al.

(2011) said there has never been a better time than now to employ effective recruitment strategies to attract well-rounded students into COAs.

This study revealed current recruitment strategies in CASNR are effective. Prior to this study, it had been more than a decade since factors impacting the college-choice decisions of students in OSU CASNR were evaluated. Based on this study, CASNR future recruitment strategies and funding can be based on empirical research.

Administrators, faculty, staff, and student ambassadors associated with CASNR prospective student recruitment should be informed of the findings, conclusions, implications, and recommendations of this study.

Following these conclusions, implications, and recommendations will help the College of Agricultural Sciences and Natural Resources at Oklahoma State University successfully recruit students to serve in the agricultural, food, and natural resources industries.

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APPENDICES

APPENDIX A

INSTITUTIONAL REVIEW BOARD (IRB)

APPROVAL FORM

Oklahoma State University Institutional Review Board

Date: Wednesday, July 29, 2015

IRB Application No AG1533

Proposal Title: Factors influencing college choice: Perceptions of first-semester students in the college of agricultural sciences and natural resources at Oklahoma State University

Reviewed and Exempt Processed as:

Status Recommended by Reviewer(s): Approved Protocol Expires: 7/28/2018

Principal Investigator(s): Jacy Bradford

Stillwater, OK 74078

Dwayne Cartmell 448 Ag Hall Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1.Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms 2.Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.

3 Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and 4.Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone is a straight of the straight of 405-744-5700, dawnett.watkins@okstate.edu).

Sincerel Hugh Crethar, Chair

Institutional Review Board

APPENDIX B

ONLINE QUESTIONNAIRE



DEPARTMENT OF AGRICULTURAL EDUCATION, COMMUNICATIONS & LEADERSHIP

Factors influencing college choice: Perceptions of first-semester students in the College of Agricultural Sciences and Natural Resources at Oklahoma State University.

Investigators: Jacy Bradford and Dr. Dwayne Cartmell, Agricultural Communications

Purpose: The purpose of this study is to identify recruitment efforts and perceptions of influences affecting the undergraduate collegechoice process for first-year students enrolled in the College of Agricultural Sciences and Natural Resources at Oklahoma State University. You must be 18 years or older to participate.

What to Expect: This research study is administered online. Participating in this study will require you to complete one questionnaire. You may skip any question(s) that you do not wish to answer. You will only be expected to complete the questionnaire once. It should take you about 10 minutes to complete.

Risks: There are no risks associated with this project above normal daily risks. However, to minimize associated risks, your responses will be anonymous and separated from identifying information.

Benefits: You may gain an appreciation and understanding of how research is conducted and exposure to the types of research being done by your peers at Oklahoma State University.

Compensation: Students who wish to include their name and email address will be added to a drawing for a \$50 gift card to the Student Union Store and will be awarded 10 points of extra credit in AG 1011. An alternative extra credit assignment – a worksheet on undergraduate research opportunities in CASNR – will be available on D2L for those who choose not to complete this survey. The drawing will take place in mid-October. Winners will be notified via email.

Your Rights: Your participation in this research is voluntary. There is no penalty for refusing to participate, and you are free to withdraw your consent and participation in the research at any time.

Confidentiality: Your responses to this survey are completely anonymous. Any written results will discuss group findings and will not include information that may identify you. Research records will be stored on a password protected computer in a locked office and only researchers and individuals responsible for research oversight will have access to the records.

Contacts: If you have any questions regarding the research, you may contact Jacy Bradford (806-220-6563 or jacy.bradford@okstate.edu) or Dwayne Cartmell (405-744-0461 or dwayne.cartmell@okstate.edu). If you have any questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu.

Participant Agreement: I have read the procedures described above. I voluntarily agree to participate and understand that by clicking "I agree" below, I am consenting to participate in this study and am at least 18 years of age. If I choose not to participate, I will click "I Do Not Agree."

I Agree

I Do Not Agree

0

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DEPARTMENT OF AGRICULTURAL EDUCATION, COMMUNICATIONS & LEADERSHIP

INSTRUCTIONS:

As you complete this questionnaire, please consider your personal experiences when going through the college choice process. This survey includes two sections. The first section relates to your perception(s) and the second is a demographic inventory. Please choose the best response and answer openly and truthfully.

As you think about <u>your intended major</u>, how influential were the following factors when making your decision regarding which university to attend?

	Not influential 1	2	3	4	Very influential 5
Quality and reputation of the faculty	0	0	0	0	0
Quality and reputation of the students	•	•	•	•	•
Quality and reputation of the courses	0	0	0	0	0
Career opportunities available for graduates	•	•	•	•	•
Quality of facilities	0	0	0	0	0
Class size	•	•	•	•	•
Number of students in the major	0	0	0	0	0



How influential was input from the following individuals in making your decision to attend Oklahoma State University? If you did not receive input from individual, select "did not receive input."

*CASNR = College of Agricultural Sciences and Natural Resources.

	Not influential 1	2	3	4	Very influential 5	Did not receive input
Friend in high school or college	0	0	0	0	0	0
Parent or guardian	•	•	•	•	•	•
Other relative	0	0	0	0	0	0
High school guidance counselor	•	•	•	•	•	•
High school agricultural science teacher/FFA advisor	0	0	0	0	0	0
Other high school teacher	•	•	•	•	•	•
Extension youth specialist (4-H educator/agent)	0	0	0	0	0	0
Oklahoma State University alumni (Non-CASNR)	•	•	•	•	•	•
OSU CASNR alumni	0	0	0	0	0	0
OSU CASNR current student	•	•	•	•	•	•
OSU CASNR faculty or staff	0	0	0	0	0	0



Listed below are several ways you may have <u>learned</u> about the College of Agricultural Sciences and Natural Resources (CASNR). For each source of information used, please select <u>how useful</u> that source was in making your decision to enroll in CASNR. If you did not use the source, select "did not use source."

	Not useful 1	2	3	4	Very useful 5	Did not use source
Contact with a professor on campus	0	0	0	0	0	0
Contact with a CASNR representative (ambassador, prospective student coordinator, etc.)	•	•	•	•	•	•
Contact with OSU Admissions representative	0	0	0	0	0	0
Visit to campus	•	•	•	•	•	•
OSU website	0	0	0	0	0	0
CASNR website	•	•	•	•	•	•
Printed OSU publications (brochures, info sheets, post cards, etc.)	0	0	0	0	0	0
Printed CASNR publications (brochures, major info sheets, post cards, etc.)	•	•	•	•	•	•
OSU social media accounts (Facebook, Twitter, Instagram, Snapchat)	0	0	0	0	0	0
CASNR social media accounts (Facebook, Twitter, Instagram)	•	•	•	•	•	•
Visits by OSU representative to your school	0	0	0	0	0	0
Visits by CASNR representative to your school	•	•	•	•	•	•
Participation in OSU on-campus recruitment program (Junior Day, University Day, etc).	0	0	0	0	0	0
Participation in 4-H and/or FFA events on campus (Roundup, CDEs, OSU Judging Camp, Big 3 Field Days, etc.)	•	•	•	•	•	•
Interaction with CASNR at trade show or event off campus (National FFA Convention, State FFA Convention, Oklahoma Youth Expo, etc.)	0	0	0	0	0	0
Participation in other events on campus (band contests, school events, athletic events, etc.)	•	•	•	•	•	•

Did you receive the information you needed to make an informed decision regarding which major/academic college to select?

Yes

O No (if no, please specify the additional information needed):

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How influential were the following factors when making your decision regarding which university to attend?

	Not influential 1	2	3	4	Very influential 5
Academic reputation of the university	0	0	0	0	0
Quality of facilities	•	•	•	•	•
Quality and reputation of faculty	0	0	0	0	0
Quality and reputation of students	•	•	•	•	•
Preparation for employment	0	0	0	0	0
Cost (tuition, room and board)	•	•	•	•	•
Scholarships	0	0	0	0	0
Availability of other financial aid	•	•	•	•	•
Class size	0	0	0	0	0
Campus safety	•	•	•	•	•
City in which campus is located	0	0	0	0	0
Distance from home	•	•	•	•	•
Prominence of university athletic teams	0	0	0	0	0

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When did you begin the decision making process to select a college or university?

- Before 9th grade
- During 9th grade
- During 10th grade
- During 11th grade
- O During 12th grade
- Other (please specify):

When did you finalize your decision to attend Oklahoma State University?

- Before 9th grade
- During 9th grade
- During 10th grade
- During 11th grade
- During 12th grade, 1st semester
- O During 12th grade, 2nd semester
- During the enrollment process
- Other (please specify):

When did you finalize your selection of a major?

- Before 9th grade
- O During 9th grade
- During 10th grade
- During 11th grade
- O During 12th grade, 1st semester
- During 12th grade, 2nd semester
- O During the enrollment process
- O Have not decided
- Other (please specify):

As a prospective student, which other institutions did you apply to? Select all that apply.

- Did not apply to any other institutions
- California Polytechnic State University
- Cameron University
- Connors State College
- East Central University
- Eastern Oklahoma State College
- Kansas State University
- Northeastern Oklahoma A&M College
- Northeastern State University
- Oklahoma Panhandle State University
- Southeastern Oklahoma State University
- Southwestern Oklahoma State University
- Southwest Missouri State University
- Texas A&M University
- Texas Tech University
- University of Arkansas
- University of Central Oklahoma
- University of Oklahoma

Other (please specify):

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How is your immediate family associated with agriculture? Select all that apply.

- Not involved in agriculture
- Agricultural government agency employee
- Agricultural laborer
- Agricultural processing
- Livestock production
- Crop production
- Other (please specify):

In which of the following organizations were you a member while in high school? Select all that apply.

- FFA
- 🗆 4-H
- National Honor Society
- Student Council
- Individual Sport (Equestrian, Golf, Tennis, Wrestling, etc.)
- Team Sport (Basketball, Football, Softball, Volleyball, etc.)
- Music Ogranizations (Band, Choir, Orchestra. etc.)
- Faith-based organizations (Church youth groups, FCA, etc.)
- Boy Scouts/Girl Scouts
- Other (please specify):

Prior to attending Oklahoma State University, where did you live? Pick the one that most closely matches.

- On a farm or ranch
- In a rural area/small town (10,000 or less)
- In a large town (10,000 50,000)
- In a large city (50,000 or more)

Did either of your parents/stepparents/grandparents graduate from college?

O Yes

O No

<<) >>>

DEPARTMENT OF AGRICULTURAL EDUCATION, COMMUNICATIONS & LEADERSHIP	

Please indicate your current major from the list below. If you are a double major, select only the first major on your degree sheet.

What is	s your age?	
Nhat is	s your biological sex?	
O Ma	ale	
⊖ Fe	emale	
To whic	ch racial or ethnic group do you most identify?	_
	rican-American (non-Hispanic)	
O As	sian/Pacific Islander	
O Ca	aucasian (non-Hispanic)	
) La	tino or Hispanic	
O Na	ative American (please specify tribe):	
0 Ot	ther (please specify):	
n what	t state did you graduate from high school?	

« »



What was your <u>primary reason</u> for enrolling in the College of Agricultural Sciences and Natural Resources at Oklahoma State University?

Please offer any additional comments or suggestions on how we can improve our communication and/or recruitment efforts to prospective students:





Thanks for participating!

If you would like to be enter the prize drawing and earn AG 1011 extra credit, please enter your contact information below.

Your contact information will not be connected with your responses.

First Name	
Last Name	
OSU E-mail Address	

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APPENDIX C

SCRIPT/INTRODUCTION OF QUESTIONNAIRE

Script for introducing survey in class:

Hello, my name is Jacy Bradford, and I am a graduate student in the department of Agricultural Education, Communications, and Leadership here at Oklahoma State University. Today, I am asking you for your assistance in helping me collect data for my graduate research thesis.

The purpose of this study is to identify recruitment efforts and factors influencing the undergraduate college-choice process for first-year students enrolled in the College of Agricultural Sciences and Natural Resources here at Oklahoma State University.

As a new student, you are in a unique position to provide us with the information and data we need to maintain and improve our academic programs and continue to provide graduates equipped to have a career in the agricultural and natural resources industries.

You will all be getting an email from me (with the subject line of "why did you choose OSU CASNR") with instructions for the survey and a link, but I wanted to take this opportunity to introduce myself to you in person. However, I also want to stress participation in this study is completely voluntary. If you do not wish to complete the instrument, it is not mandatory.

You will be provided with the link through your OSU email address, and additionally, it will be posted on the D2L Online Classroom page for this course. If you wish to participate in this study, you will be eligible for 10 points of extra credit in AG 1011 (equal to a full homework assignment or attendance points for one day) and your name will be entered into a drawing for a \$50 Student Union Store gift card. If you choose not to participate, an alternative assignment for extra credit will be posted on D2L that is also worth 10 points. The online survey will no longer be available after Friday, September 4 at midnight.

I ask that before you take the survey, you please read the participation information section carefully and follow the instructions.

Again, I want to stress this study is voluntary; however, I would be very appreciative of your participation in my study and your part in helping me graduate this May.

If you have any questions, please contact me via e-mail or swing by my office in 103 Ag Hall.

Thank you for your time!

APPENDIX D

RECRUITMENT EMAILS FOR PARTICIPATION

RECRUITMENT EMAIL #1

Subject: AG 1011 Survey: Why did you choose OSU CASNR? (high priority)

Dear AG 1011 Student,

Hello! I hope your first week at Oklahoma State University has been wonderful!

My name is Jacy Bradford, and I am a graduate student in the Department of Agricultural Education, Communications, and Leadership here at Oklahoma State University. I am also one of the graduate teaching assistant's for the College of Agricultural Sciences and Natural Resources and serve as an AG 1011 GTA.

Dr. Dwayne Cartmell and I are currently researching CASNR recruitment efforts and the purpose of this study is to identify recruitment efforts and influences affecting the undergraduate college-choice process for first-year students enrolled OSU CASNR.

Because you recently went through the undergraduate college-choice process, would you please consider participating in an online survey, which asks for your perceptions of this process and the factors determining your decision? The survey will only take around **10 minutes** to complete.

For participating in this survey, you will earn **10 extra credit points** for AG 1011 (equivalent to a homework assignment or attendance). Additionally, you will have the opportunity to win a **\$50** gift card to the Oklahoma State University Student Union Store. *Your responses will remain* <u>anonymous</u> and only summarized data will be reported to protect your identity.

The results are intended to help CASNR continue to reach bright and talented students for years to come as well as find innovative ways to strengthen and maintain recruitment efforts.

Please click on the link below to access the online survey.

https://okstatecasnr.az1.qualtrics.com/SE/?SID=SV_0NyUfsr1hPh6uvr

If you have any questions or concerns, feel free to email me or Dr. Dwayne Cartmell at dwayne.cartmell@okstate.edu.

Thank you so much for your time, it is greatly appreciated!

Jacy Bradford Dr. Dwayne Cartmell

Jacy Bradford

Student Development & Communications Graduate Assistant College of Agricultural Sciences & Natural Resources Oklahoma State University 103 Agricultural Hall | Stillwater, OK 74078 (W) 405.744.9464 | (C) 806.220.6563 jacy.bradford@okstate.edu

RECRUITMENT EMAIL #2

Subject: AG 1011 Survey: Why did you choose OSU CASNR? (normal priority)

Hello again!

Last week you received an email from me. The survey we asked you to participate in is part of my thesis project regarding experiences you had during your undergraduate college-choice process. I just wanted to remind you that your input is very important and will help strengthen CASNR's future recruitment efforts.

For participating in this survey you will also have the opportunity to be entered to win a **\$50 gift** card to the Student Union Store and earn **10 points of extra credit in AG 1011.**

The survey has taken your peers about **10 minutes** to complete and your answers will remain completely anonymous.

Please follow the link below to access the survey. <u>The survey will only be available until</u> Friday, September 4 at midnight.

https://okstatecasnr.az1.qualtrics.com/SE/?SID=SV_0NyUfsr1hPh6uvr

Thank you so much! By filling out this survey, you're helping me finish my thesis and graduate in May!

If you have any questions or concerns feel free to contact me.

Thank you!

Jacy Bradford & Dr. Dwayne Cartmell

Jacy Bradford

Student Development & Communications Graduate Assistant College of Agricultural Sciences & Natural Resources Oklahoma State University 103 Agricultural Hall | Stillwater, OK 74078 (W) 405.744.9464 | (C) 806.220.6563 jacy.bradford@okstate.edu

FINAL REMINDER EMAIL

Subject: AG 1011 Survey: Why did you choose OSU CASNR? (high priority)

Dear AG 1011 Student,

Time is running out for your chance to earn 10 quick **extra credit points** (equal to one homework assignment or attendance points) for AG 1011 or to win a **\$50 gift card** to the Student Union Store. The survey will only be active for **two** more days!

I would be grateful if you took the time to complete this survey, which will help me complete my thesis and graduate this May.

The purpose of this study is to identify recruitment efforts and factors influencing the undergraduate college-choice process for first-year students enrolled in OSU CASNR.

As a new student, you are in a unique position to provide us with the information and data we need to maintain and improve our academic programs, including recruitment efforts.

Thank you for your time and assistance in this project. The survey will take approximately **10 minutes or less** to complete. Again, your responses will remain <u>anonymous</u> and only summarized data will be reported. It can be accessed at the following address:

*The survey will only be active until Friday, September 4 at midnight.

Thank you again!

Jacy Bradford & Dr. Dwayne Cartmell

Jacy Bradford

Student Development & Communications Graduate Assistant College of Agricultural Sciences & Natural Resources Oklahoma State University 103 Agricultural Hall | Stillwater, OK 74078 (W) 405.744.9464 | (C) 806.220.6563 jacy.bradford@okstate.edu

APPENDIX E

D2L ONLINE CLASSROOM ANNOUNCEMENT

D2L Online Classroom Announcement

Hi AG 1011 Students!

Welcome to Oklahoma State University!

My name is Jacy Bradford, and I am a graduate student in the Department of Agricultural Education, Communications, and Leadership here at OSU. I am also one of the graduate teaching assistant's for the College of Agricultural Sciences and Natural Resources and serve as an AG 1011 GTA.

Dr. Dwayne Cartmell and I are currently researching CASNR recruitment efforts and the purpose of this study is to identify recruitment efforts and influences affecting the undergraduate college-choice process for first-year students enrolled OSU CASNR.

Because you recently went through the undergraduate college-choice process, would you please consider participating in an online survey, which asks for your perceptions of this process and the factors determining your decision? The survey will take around 10 minutes to complete.

For participating in this survey, you will earn **10 extra credit points** for AG 1011 (equivalent to a homework assignment or attendance). Additionally, you will have the opportunity to win a **\$50** gift card to the Oklahoma State University Student Union Store. *Your responses will be anonymous and will not be connected to your name or address in any way.*

The results are intended to help CASNR continue to reach bright and talented students for years to come as well as find innovative ways to strengthen and maintain recruitment efforts.

Please click on the link below to access the online survey.

*The survey will go inactive on Friday, September 4 at midnight.

If you choose not to participate in this study, an alternative extra credit assignment worth 10 points is posted on D2L under the _____ tab. Students cannot earn credit for both the online survey and the alternative assignment – you must choose one or the other. The alternative assignment will be due Friday, September 4 at 5 p.m. in 103 AGH.

If you have any questions or concerns, feel free to email me or Dr. Dwayne Cartmell at dwayne.cartmell@okstate.edu.

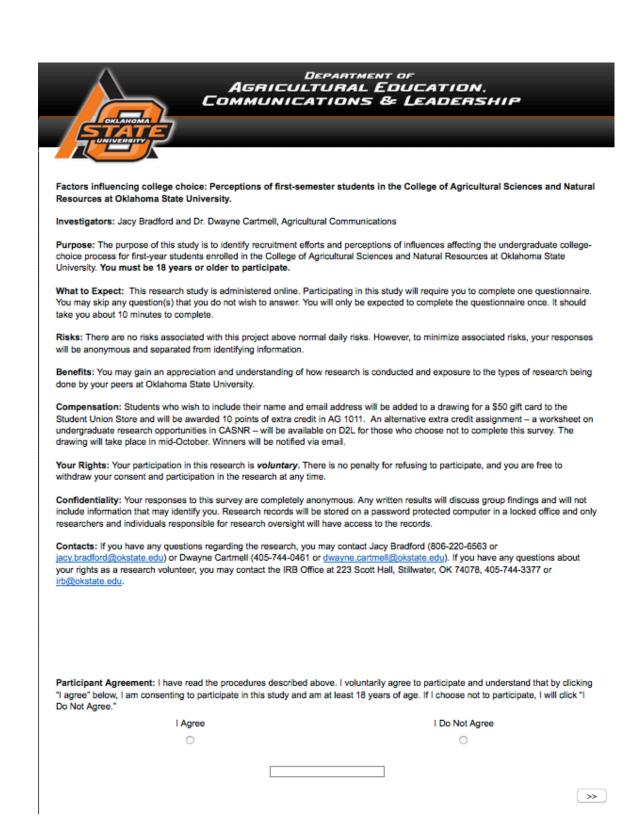
Thank you so much for your time, it is greatly appreciated!

Jacy Bradford

Dr. Dwayne Cartmell

APPENDIX F

PARTICIPANT INFORMATION



APPENDIX G

CONGRATULATORY EMAIL FOR

DRAWING WINNERS

Congratulations!

Your name was drawn for the \$50 OSU Union Store gift card associated with the student choice thesis questionnaire in CASNR's AG 1011 course in August.

Before we can award the gift card, I need confirmation of whether or not you will accept the award and confirmation you will be attending OSU this Spring semester.

To receive this gift, please email me by **Friday**, **Jan. 15**, or your name will be pulled and another name will be drawn.

I look forward to hearing from you soon! Thanks again for assisting in my research.

Have a great first week back!

Jacy

Jacy Bradford

Student Development & Communications Graduate Assistant College of Agricultural Sciences & Natural Resources Oklahoma State University 158 Agriculture North | Stillwater, OK 74078 (W) 405.744.2977 | (C) 806.220.6563 jacy.bradford@okstate.edu

APPENDIX H

ALTERNATIVE EXTRA CREDIT AG 1011 ASSIGNMENT IN

PLACE OF COMPLETING QUESTIONNAIRE

AG 1011 - CASNR Research Extra Credit Assignment
Name:_______SAM:______SECTION: _____

Directions: (OPTIONAL) Each class member has an opportunity to complete an extra credit assignment worth 10 points. If students did not choose to complete the online college-choice research survey, they can complete the following assignment.

This form is due by 5:00 p.m. Friday, September 4 to 103 AG Hall.

Use online or in-person resources to investigate undergraduate research opportunities in CASNR. Helpful Link:http://scholardevelopment.okstate.edu/index.php?slab=undergraduate-research

Research Information
Example of Undergraduate Research Program (Undergraduate Research Network):
Name of Principle Researcher:
Contact Information:
Is there funding available for qualified students? YESNO
Project Description:
What is the name of an undergraduate research scholarship?
When is the application due?
What things interest you about undergraduate research?
What is the value of research at a land-grant institution?
What does the CUR Registry stand for? What is its value?
Explain the basics of the Freshmen Research Scholars Program.
Research the Oklahoma Agricultural Experiment Station. What are some examples of current research being conducted?

APPENDIX I

RESPONSES FOR "OTHER" HIGH SCHOOL

ORGANIZATIONAL INVOLVEMENT

Academic Team (2) American Sign Language Athletic Training AVID Best Buddies Beta Club (4) HOSA Big Brothers, Big Sisters Business Professionals of America (BPA) (2) CEP Cheerleading Colorguard Debate DECA(2) Drill Team Environmental Club Future Business Leaders of America (FBLA) (2) FCCLA(5) Fellowship of Christian Athletes (FCA) Gifted and Talented Glen-colusa Cattle Women's Club HOSA(2) Horse Judging Team Ignition Interact Club Iowa Swine Jackpot Series Italian Club Junior Classical Leauge Kentucky Junior Angus Association Key Club

Link (Freshmen Mentor Program) Leo Club Mu Alpha Theta National High School Rodeo Association (2) National Junior Angus Association National Society of High School Scholars Oilers of Tomorrow Oklahoma City Zoo volunteer Oklahoma Girls State Oklahoma Honor Society Ping Pong Club PTSA Quiz Bowl Team Robotics Safari's Exotic Animal Sanctuary Volunteer School club School based television program Science Club Service Club Ski Club Spanish Club Special Olympics Speech (3) Spirit Club Students Against Destructive Decisions Technology Students Association (TSA) Texas High School Rodeo Association Theatre or Drama 2 Western Days Committee Western Horsemanship Club Yearbook or Newspaper

VITA

Jacy S. Bradford

Candidate for the Degree of

Master of Science

Thesis: COLLEGE CHOICE: PERCEPTIONS OF FIRST-YEAR STUDENTS IN THE COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES AT OKLAHOMA STATE UNIVERSITY

Major Field: Agricultural Communications

Biographical:

Education:

Completed the requirements for the Master of Science in Agricultural Communications at Oklahoma State University, Stillwater, Oklahoma, in May 2016.

Completed the requirements for the Bachelor of Science in Agricultural Communications at Texas Tech University, Lubbock, Texas, in May 2014.

Experience:

Employed as Student Development & Communications Graduate Teaching Assistant for the College of Agricultural Sciences and Natural Resources Academic Programs Office, Oklahoma State University, Stillwater, Oklahoma from June 2014 – May 2016.

Employed as student assistant in the Dr. Bill Bennett Student Success Center, Texas Tech University, Lubbock, Texas from August 2013 – May 2014.

Professional Memberships:

Agricultural Communicators of Tomorrow, August 2011- May 2014.

Graduate Student Organization in Agricultural Education, Communications, and Leadership, August 2014 – May 2016.