

ASPIRATIONS OF FRESHMEN AND EXPECTATIONS OF SENIORS IN THE COLLEGE  
OF AGRICULTURE AT KANSAS STATE UNIVERSITY

by

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## **Abstract**

Agriculture is one of the fastest growing industries in the world. Universities have the opportunity to meet the growing demand for more agricultural graduates. To better understand how to facilitate students in degree completion at Kansas State University, this study looked at the aspirations of freshmen and the expectations of seniors within the College of Agriculture at Kansas State University. The sample included 517 freshmen and 196 seniors, for a total of 713 students who completed the questionnaire.

Both freshmen and seniors indicated positivity toward future career goals. Additionally, both groups indicated having participated or the desire to participate in a student organization within the College of Agriculture, and to complete an internship relevant to their major.

Intrinsic values, such as relevance to their interests and personal values, were influential in choice of degree for both freshmen and seniors. Both groups responded very positively about future job opportunities and preparedness for the career force. Freshmen and Seniors were relatively consistent in their predication of salary one year and five years after graduation, however freshmen had higher expectations 10 years post-graduation. Forty-two percent (n = 210) of freshmen indicated that they had thought about changing majors, while 29.2% (n = 56) of seniors had responded that they had changed majors during their academic career. Both groups indicated that they had a positive college experience at Kansas State University.

According to this research, Kansas State University students need more information about job opportunities and salary expectations. Additionally, more information regarding majors will help students choose a major most connected to their personal interests.

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## **Chapter 1 - Introduction**

Kansas State University, along with most other universities in the country, is interested in the retention and success of students. Agriculture is one of the fastest growing industries in the world, supported by the increase of students enrolling in agricultural programs. In the last decade the characteristics of university agriculture students have changed from students coming from a farm background, to now more undergraduates coming from an urban demographic (Thielen, 2012).

This change in demographics results in a change in student career aspirations. Family background, expected work roles, and society's opinions on potential job opportunities are all factors pertaining to career aspirations (Conroy, 2000). Conroy found that agricultural knowledge and knowledge of opportunities within the industry also play a large part in forming student aspirations. As aspirations evolve, a college must also adapt to help students find their place within the industry. This has never been more important than today, when the job opportunities are growing.

The United States Department of Agriculture estimates that employment opportunities for college graduates in the agriculture industry will be around 57,900 jobs between the years 2015-2020. Within the industry, management and business will have around 46% of the total open jobs. However, the current data show that agricultural degree programs are not able to satisfy the employment needs with their student graduates. Companies look elsewhere to fill these positions. With so many job openings filled by non-agricultural graduates, this provides immense potential for agriculture graduates to find career placement (Goecker, Smith, Fernandez, and Ali, 2015).

## Statement of Problem

An expected increase in job opportunities from 2015-2020 has led many universities to seek to increase agricultural graduates. Of the predicted 57,900 job opportunities within the United States, agricultural graduates will fill only 35,400. Graduates of non-agricultural programs will occupy the remaining 22,500 openings. Employers have stated they prefer agricultural graduates for these openings, rather than students from other areas of study (Goecker, et. al., 2015).

Increase in enrollment support data for increase job openings in the future; the past few years have had agricultural colleges all over the country experience a vast influx of students (Krogstad, 2012). Texas A&M, one of the largest agriculture universities in America, experienced an increase from 6,694 students in 2009 to 7,895 students in 2014 (Enrollment and Student Demographics, 2014). The University of Connecticut has doubled its College of Agriculture enrollment since 2004 (Krogstad, 2012). Kansas State University also is experiencing this trend. In 2000, there were 2,004 students enrolled at KSU in the College of Agriculture for the fall semester. The Fall 2014 semester enrolled 2,780 students in the College of Agriculture (Enrollment Summary by College, 2014). As the economy recesses, agriculture is still extremely important. The need to increase food production by a reported 50-70% will keep agriculturalists desirable for some time (“FAO forecasts”, 2011).

Regarding demands for more agriculture graduates, a number of studies have examined recruitment within a college (Einhorn & Hogarth, 1981; Conroy, 2000; Montmarquette, Cannings, & Mahseredjian, 2002; Malgwi, Howe, & Burnaby, 2005) but a shortage of research exists related to the choice of major within colleges of agriculture. More research is needed to learn how to facilitate the retention of agriculture students within a university. One important

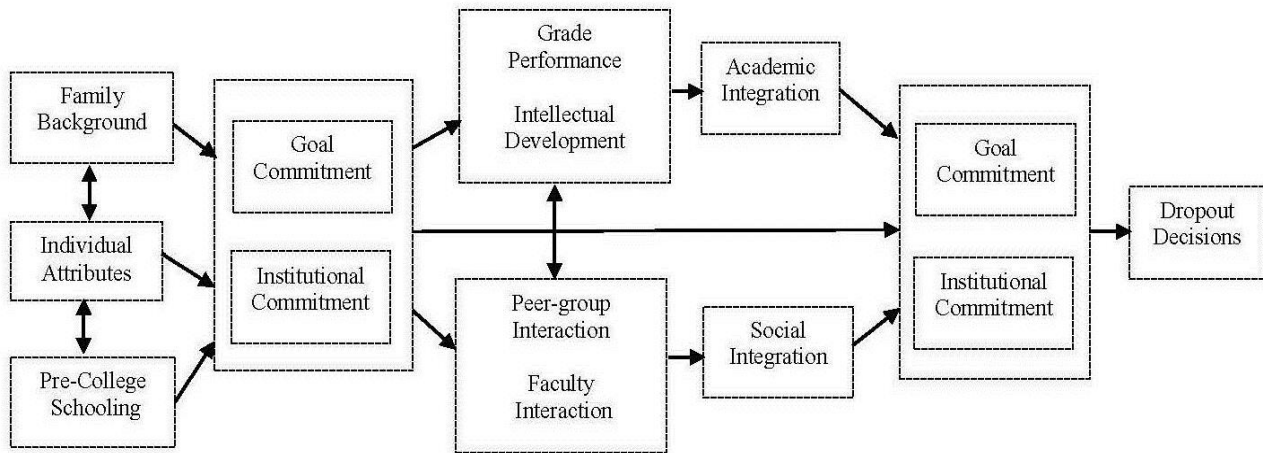
component of retention within a major is career aspirations of the student (Cabrera, et al., 1993). This research seeks to develop a clearer understanding of how freshmen choose their major and what factors contributed to their choice at Kansas State University. Additionally, it will shed light on what graduating seniors expect for job opportunities, as well as the factors that contributed to their academic college experience.

### **Theoretical Basis**

The theoretical framework of this study was based on Einhorn and Hogarth's 1981 theory of behavioral decision making. Einhorn and Hogarth (1981) state that much of the previous research on decision making is unrealistic and set between impractical boundaries that leave much to interpretation bias. They theorize that the context in which decisions are made is just as important as the decisions themselves. Context has previously been illustrated as the variables surrounding a decision, Einhorn and Hogarth (1981) proposed that context should also include variables within a person, such as previous experience, memory, and learning processes of the individual. Moreover, the way the choice is presented, external feedback, and motivations also play an important role in how decisions are made (Einhorn and Hogarth, 1981).

Additionally, two conceptual models were used for this study: Tinto's Student Integration Model (Figure 1.1) and Bean's Student Attrition Model (Figure 1.2). Tinto's model associates students' attrition to disconnection between students and universities. Tinto emphasized that an individual's motivation and academic ability, coupled with a university's characteristics, help strengthened a student's commitment to their chosen university (Tinto, 1975). Tinto did not, however, look at the role of external factors in shaping a student's commitment (Cabrera, Nora, and Castaneda, 1993).

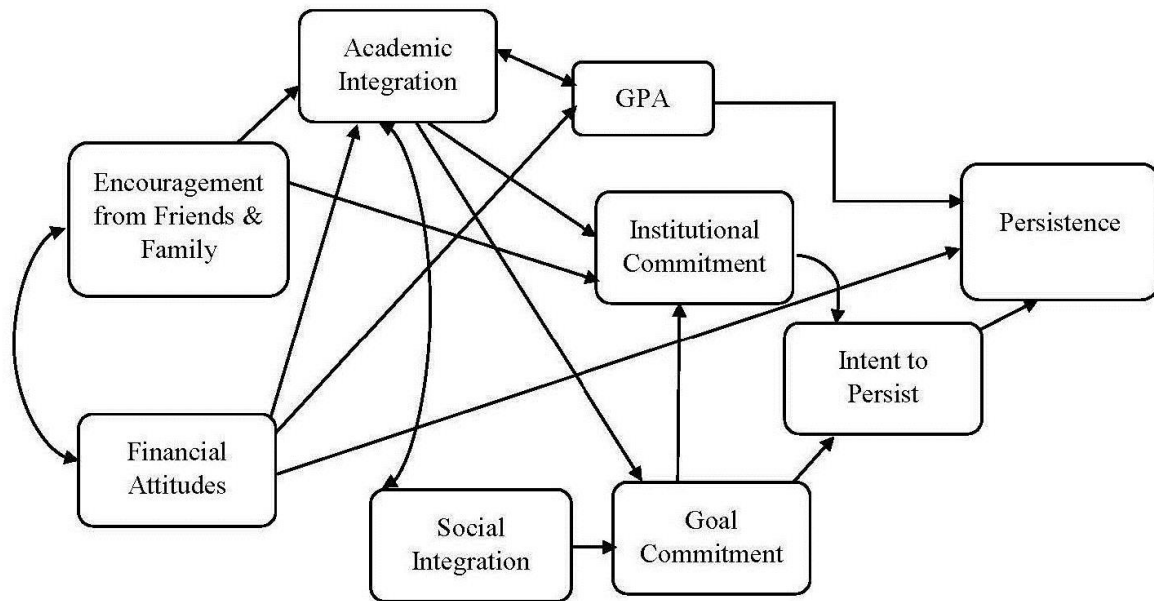
**Figure 1.1 Tinto's Student Integration Model**



**Figure 1.1. Tinto's model that students' motivation and ability in connection with a university's characteristics helped reinforce a student's commitment to their university. Adapted from: "Dropout from Higher Education: A Theoretical Synthesis of Recent Research" by V. Tinto, 1975, *Review of Educational Research*, 45, 89-125.**

Therefore, Bean's Student Attrition Model, which focused on attitudes and intentions in regards to persistence, also was used in this study. Bean stated external experiences, outside of the university setting, play a major role in decisions students make. Further research of this model shows that non-intellectual factors play a part in retention as well, such as student culture, family approval, and university experience. Family opinion and support also have both a direct and indirect effect, on student persistence (Cabrera, et al., 1993).

Figure 1.2. Bean's Student's Attrition Model



**Figure 2.2. Bean's Student Attrition Model shows how student attitudes and intentions, in conjunction with external experiences play a role in student commitment and decision making. Adapted from: "College Persistence: Structural Equations Modeling Test of an Integrated Model of Student Retention." By A. F. Cabrera, A. Nora, and M. B. Castaneda, 1993, *Journal of Higher Education*, 64(2), 123-138.**

Still, major commonalities exist between the two models. Both seem to recognize the importance of internal factors, including courses and student integration into the university culture. Although they differ on what factors are most important in student retention, both agree that retention involves multiple factors over time (Cabrera, et al., 1993).

### Need for the Study

At Kansas State University, the College of Agriculture prides itself on being able to provide an excellent learning environment through first-class education and earnest advising. One measure of success is the percentage of students who graduate the university, but few studies (Barkley, 2005; Sivapirunthep, 1999; Thielen, 2012; Wildman, 2001) have examined

student perceptions within their majors in the College of Agriculture. This line of inquiry has the potential to provide a better understanding of the aspirations of incoming freshmen, alongside their opinions of majors and their associated career choices. As Kansas State University seniors contemplate entry into the work force, an examination of their expectations of career opportunity, choice, and satisfaction, as well as their assessment of the College of Agriculture as a whole, will allow the College to better address student retention and satisfaction throughout the college.

Evaluating Kansas State's retention rate in the College of Agriculture can provide direction on the areas of needed improvement. Determining key reasons for switching majors can help provide insight on how to better facilitate choosing a major. Additionally, evaluating K-State seniors on their expectations of career opportunity and college experience should shed light on what helped them succeed in, or modify, their major.

### **Purpose of Study**

The purpose of this study was to describe how recruitment retention at Kansas State University in the College of Agriculture is affected by the aspirations of incoming freshmen and by career expectations of exiting seniors. Freshmen students entering the College of Agriculture during the 2015 Fall semester were surveyed during their freshmen orientation class to better understand factors pertaining to their choice of major, commitment to their selected major, and future career aspirations. Additionally, to understand exiting seniors' expectations and examine factors pertaining to their academic college experience, exiting seniors in the College of Agriculture were surveyed during a senior class in the Fall 2015 semester. To facilitate this study, the following research objectives were developed:

- 1.) Examine factors pertaining to incoming freshmen choice of degree, commitment to major, and career aspirations.
- 2.) Examine factors pertaining to exiting seniors' academic college experience and their expectations of job opportunities.
- 3.) Compare aspirations and expectations, choice of major, and barriers to future employment between freshmen and seniors in the College of Agriculture at Kansas State University.



## **Chapter 2 - Literature Review**

More than 75% of university students change their major between the first day of class and graduation (Maher, 2014). This can add tuition fees to student's bills, as well as decreasing the chance of student degree completion (Seidman, 2012). From 2012-2022, the number of college graduates needed to fill agriculture job opportunities is projected to increase 10.8%, compared to 2010-2015 (Goecker, G. Smith, E. Smith, and Geotz, 2015). However, only 35,400 graduates of the needed 57,900 will come from a college agricultural program (Goecker, et al., 2015). To increase graduates from Kansas State's College of Agriculture the factors pertaining to changing major, commitment to major, and factors leading to change of major should be examined.

### **Choice of Major**

As a student enters a university, one of the first things they are asked to do is to select a major within their college. Some students are unsure and choose an "undecided" category, but most indicate an intended area of study. However, research shows that the majority of students change their major at least once during their college career, and many factors have been shown to influence students' choice of major (Maher, 2014).

Interest in the major area is the most important factor in choosing a major, supporting prior research (Malgwi, Howe and Burnaby, 2005). Additionally, they stated university services geared toward helping students find a major are the least influential. Takacs (2007) research supported this statement, but found that the professors students had early in their college careers made a profound impact on student persistence within a subject. Enthusiasm and knowledge of professors could help persuade students' choice of major (Walmsley, 2010). Also, the student culture and previous experiences play significant roles in major choice. Availability of required

courses, perception of course rigor, and stress placed upon math and sciences also swayed the major selection (Takacs, 2007).

Family also played a large part in major choice in terms of providing information and job outlook. Parental support of major also tended to increase a student's selection of a major (Walmsley, Wilson, & Morgan, 2010).

### **Commitment to Major**

Commitment to their choice of major, also known as academic persistence (Strauss and Volkwein, 2004), is the term used to describe how devoted students are towards graduating in their selected major. This attribute is made up of many factors, including impression of major, satisfaction with the university, academic experience, and sense of belonging. Determining influences on student commitment is important to universities in order to better understand how to facilitate student success (Strauss and Volkwein, 2004).

It has long been thought that students who begin college undecided are at a higher risk of not completing their degree. However, some research disagrees (Anderson, 1985; Foote, 1980). Others have found that more factors played into persistence in addition to the initial major selection by a student (Foote, 1980). Student ACT scores and college entrance exams were the most important indicators of college success and graduation, with higher scores translating into higher graduation rates (Foote, 1980). Uncertainty about selecting a major and indecision are negative barriers to commitment, especially in undecided students within a college (Anderson, 1985).

Conversely, some scholars have found the undecidedness is not a negative aspect towards persistence, rather just one factor of many that lace this multifaceted subject. Degree completion is not substantiated by persistence within major or academic career (Graunke, Woosley &

Helms, 2006). Other researchers (Anderson, 1985; Lewallen, 1993) have found fault in the research method for undecided students, in that other factors besides commitment were not studied within the undecided student groups. However, most studies admit their flaws in that not every aspect of persistence is evaluated in each study, and often times gender, demographics, college experience, and other factors are not fully integrated in the data, leaving many opportunities for more research.

Student experiences can be the most important issue in regards to commitment to a major (Strauss & Volkwein, 2004). Faculty focus efforts on maximizing a student's experience and involvement to help the student feel more integrated and welcome. In addition, faculty-student communication, learning experiences both inside and outside the classroom, and social involvement with other students are all positively related to persistence (Strauss & Volkwein, 2004).

### **Aspirations of Freshmen**

One view into students' aspirations is their choice of major. The factors pertaining to choice of major have shifted in the past few decades. Berger (1988) found that choosing a major was based significantly on student perceptions of predicted future earnings, with less emphasis on projected beginning earnings. However, Wildman and Torres (2001) found that being able to work outdoors and field work were the most persuasive for students majoring in agriculture. Future job market and location of career also ranked high, while projected income and prestige of career were lower in influence (Wildman and Torres, 2001). Nauta (2007) found that students' satisfaction within a major increased their career decision. Roberts and Styron (2010) found that previous learning experiences ranked highest on factors leading to choice of major. This is

supported by Barkley (2005) who found that prior agriculture experience also was the dominant factor in selecting an agriculture major for students at Kansas State University.

In 2012, 26.8% of students in the College of Agriculture at Kansas State University reported coming from an urban area (over 50,000 in population). With more urban students entering agriculture, more emphasis is needed to communicate job opportunities to students with little prior agriculture exposure (Wildman and Torres, 2001).

### **Retention**

Grade point average has long been used as a way of predicting college performance and retention (Garton, Ball, & Dyer, 2002). But that this alone was not the sole variable for determining retention. Nauta (2007) found that 70 (36%) of 195 students with selected majors at a mid-western university changed majors during the course of two years. Nauta also found that early major satisfaction led to higher satisfaction about career choices. Student interest in a chosen major, clear goals, and connections within a college also help increase retention (Reason, 2009). Helping students early on in finding a major to commit to may help increase retention within a college. An article from the New York Times stated that more than 40% of science based majors switched to another degree due to the rigor of courses (Drew, 2011). Montmarquette, Cannings, Mahseredjian (2002) found that perceived “riskier” majors, such as science, could be a factor in students choosing other career routes.

Reason (2009) found that retention was a multi-faceted construct that was determined by numerous factors, which has supported with Garton, Ball, and Dyer’s 2002 findings. Reason stated college choice was largely based on high school experiences with agriculture, and personal traits. These traits included willingness to change, student aspirations, and motivation. These findings tended to agree with research conducted over the last decade, however, Reason (2009)

also stated other factors were largely at play as well, including socioeconomics and gender. Persistence rates have shown large racial and ethnic differences when compared in college students. White and Asian students had more persistence than other students of color. However, when controlling for socioeconomic status, these differences decreased, signifying that possible income and previous agriculture experience might be the reason behind the change in persistence between the students (Reason, 2009).

Additionally, Reason (2009) established that family is a considerable variable in student retention within a university and remains relatively unstudied. Past studies (Tinto, 1975, Tinto & Pusser; 2006) have indicated that family ties need to be relaxed to encourage persistence. However, previous studies found that strong family ties and support increased persistence in students of color. As student demographics change in many universities, more research is needed to fully comprehend the influence family has on individual student retention.

Moreover, individual student attributes also have a notable impact on their persistence through a major. Motivation, self-efficacy, aspirations, and excellent high school academics continue to show an influence on persistence. However, it is impractical and disreputable for colleges to only vie for and attain the brightest of our nation's youth. Therefore, it is more representative for universities to expand efforts on factors they can control.

### **Senior Job Expectations**

Job satisfaction is based upon many factors including salary, potential earnings, and job match quality. In 2002, Lydon and Chevalier found that expectations of recent graduates were a major component of job satisfaction. They stated that young graduates often over-estimate their future income, which leads to a negative impact on satisfaction. Additionally, student lack of awareness of their career monetary position causes less satisfaction than those who were more

prepared for the reality of their wage or income level after graduation. Type of degree plays a component in assumed wages (Lydon, 2002).

In his study of graduates between 1978-1988, Barkley (1992) found salaries varied considerably between different agriculture degrees. He found that economics and business degree graduates earned more out of college than animal science graduates. Advanced degrees in agriculture also improved earning potential (Barkley, 1992). It should be noted that at the time of this study (Barkley, 1992), agriculture enrollment was on the decline, however, these findings are not consistent with today's data (Artz, 2013).

In 2013, Artz found that a graduate of a specialized agricultural degree, such as animal science or agricultural education, earned more than one who earned a generalized agriculture degree, such as agricultural economics or business. Interestingly, the study found that jobs outside of the agriculture industry employing agricultural graduates paid more than jobs found within the industry. This might suggest that graduates are choosing employment outside of the industry when looking at salary alone. However, according to employers, generalized skills were in more demand than specified skills. Artz suggested a more general knowledge of agriculture might help in wage earnings and job satisfaction due to the prospect of additional jobs (Artz, 2013).

These studies support the idea that college retention and job satisfaction are multi-layered and comprised of many factors (Cabrera, Nora, and Castaneda, 1993). An increased understanding of the complexity of student expectations of their prospective career, and how a college might improve outlooks and satisfaction of their graduates is needed (Reason, 2009).

## **Barriers to Careers**

Even though there are a surplus of agricultural jobs available (Goecker, et. al., 2015), there is still concern from college students about employment after graduation. Even after securing a college degree, some students are failing to finding a job. Several factors are thought to be in connection with this issue. Firstly, some research (e.g., Seibert, Kraimer & Crant, 2001) has suggested that a student must be proactive in their job search, and that proactive, outgoing students have a higher job placement versus those who are less active. Searching for jobs requires dedication and persistence, and students who are goal-orientated might have an advantage over students who are not as driven or focused during job fairs and career employment activities. Students with a less proactive approach toward finding a career after graduation, would participate less in university job fair events (Brown, Cober, Kane, Levy, & Shalhoop, 2006).

Just as self-efficacy has a major impact on a student during college, it also influences their career choices. Self-efficacy (Bandura, 1994), which is students' belief in their ability and knowledge to succeed, plays a major component in their selection or investigation of a career. This confidence can come from multiple sources, including previous experience, advisor interaction, or academic preparedness. Additionally, students who possess a lower self-efficacy tend to show more career indecision and less proactive behavior when searching for a job. Students who feel more prepared academically will be more proactive in reaching out to employers or applying for jobs they might otherwise feel unqualified to obtain (Bollman, 2009).

## **Chapter 3 - Methodology**

### **Purpose of the Study**

The purpose of this study was to describe how retention in majors at Kansas State University is affected by the aspirations of incoming freshmen and by career expectations of exiting seniors. Freshmen students entering the College of Agriculture during the 2015 Fall semester were surveyed during their freshmen orientation class to better understand factors pertaining to their choice of major, commitment to their selected major, and future career aspirations. Additionally, to understand exiting seniors' expectations and examine factors pertaining to their academic college experience, 2015 exiting seniors in the College of Agriculture were surveyed during a senior class in the Fall 2015 Semester. To facilitate this study, the following research objectives were developed:

- 1.) Examine factors pertaining to incoming freshmen choice of major, commitment to major and career aspirations.
- 2.) Examine factors pertaining to exiting seniors' academic college experience and their expectations of job opportunities.
- 3.) Compare aspirations and expectations, choice of major, and barriers to future employment between freshmen and seniors in the College of Agriculture at Kansas State University.

### **Research Design**

This descriptive census study employed a self-reported survey research design. The instrument consisted of both Likert-type items and multiple response questions that allowed participants to choose the answer best fitting their situation.



## **Population**

The population of this study consisted of freshmen students enrolled in the College of Agriculture at Kansas State University during the Fall 2015 semester (N = 564), and anticipated graduating seniors for this academic year enrolled in the College of Agriculture at Kansas State University (N = 549).

## **Instrumentation**

Two questionnaires (Appendix A, Appendix B) were developed in June 2015 by the researcher based on a review of literature (Anderson, 1985; Barkley, 2005; Maher, 2014; Malgwi, et al., 2005; Nauta, 2007; Strauss & Volkwein, 2004; Takacs, 2007; Walmsley, et al, 2010). Two questionnaires were administered to the population from August through September of 2015, one for the accessible Freshmen population and one for the accessible Senior population. A Likert-type scale was used in both instruments, where applicable, to determine influence of each question criteria. Student variables included on the questionnaire identified: students' current major, students' previous major, choice of major, commitment to major, career aspirations, and career expectations following graduation.

To test content validity, the questionnaires were reviewed by a panel of faculty at Kansas State University within the College of Agriculture in March 2015. Modifications were made, following the panel's suggestions, and two questionnaires were finalized. The freshmen questionnaire consisted of 19 questions. The senior questionnaire consisted of 24 questions.

An application was submitted to the Kansas State University's Institutional Review Board on August 14, 2015. The Institutional Review Board approved the questionnaire and survey procedures on August 17, 2015.

Zipcode information was obtained from the U.S. Census website, and population numbers were taken from the 2010 census. For practicality, the population for both Freshmen and Seniors were divided into groups for comparison. Population was determined to be either small, medium, large or metropolitan. Small population was regarded as 1 to 2,500 people per town. Medium population was regarded as 2,501 to 20,000 people per town. Large population was regarded as 20,001 to 75,000 people per town. Metropolitan was regarded as any town with a population > 75,000, including surrounding suburbs. US Census data was used to find most populated cities in Kansas and their suburbs.

### **Data Collection**

To best facilitate this research, teaching coordinators in each department were contacted, via email, to identify the best classes to reach freshmen and exiting seniors. Then, instructors of those courses were contacted via email, and permission was asked to administer the questionnaire during one class period.

An appropriate exiting senior class meeting time for majors in Agribusiness, Agricultural Communications and Education, Agricultural Economics, Bakery Science and Management, Horticulture, Milling Science and Management, and Wildlife and Outdoor Management could not be arranged, therefore no seniors from these majors were in the data set. Teachers of these suggested classes were contacted three times before concluding that no agreement could be reached. Some student identified those majors as their current majors while being surveyed during other major class times.

Both population groups were given verbal directions and information about the questionnaire and accompanying informed consent form. Students were asked to return the completed questionnaires once completed.

The freshmen questionnaire was administered in each freshmen orientation class according to their major from August 20 through September 15, 2015. A total response of 517 students represented 91.7% of the 2015 freshmen class (Table 3.1).

**Table 3.1**  
*Freshmen classes surveyed*

Major	n	%
Animal Science and Industry 102	231	44.7
Agricultural Economics 105	102	19.6
Agronomy 101	37	7.2
Grain Science 100	28	5.4
Park Management and Conservation 210	28	5.4
Food Science and Industry 101	21	4.1
Agricultural Education 300	18	3.5
Horticulture 190	16	3.1
General Agriculture 101	9	1.7
Agricultural Technology Management 101	6	1.2

Senior classes were surveyed from August 20 through September 15, 2015. All students were instructed to only complete the questionnaire if they were a graduating senior. A total of 196 seniors completed the questionnaire, representing 35.7% of the exiting senior population (Table 3.2). A total of 713 useable instruments were collected.

**Table 3.2**  
*Senior classes surveyed*

Major	n	%
Agricultural Technology Management 661	12	6.1
Agricultural Education 500	15	7.7
Agronomy 625	24	12.2
Animal Science and Industry 533	94	48.0
Food Science and Industry 500	24	12.2
Park Management and Conservation 625.	20	10.2
Other/Not Identified	7	3.6

## **Data Analysis**

In this study, measures of central tendency were used to describe how current major, aspirations, commitment to major, college experience, expectations, and choice of major helped students in regards to their overall college experience. Grand means were calculated to better compare differences between freshmen and seniors for the constructs of aspirations and expectations, choice of major, and barriers to employment. Data were analyzed using the SPSS/Windows version 20 computer program.

The first objective was to examine factors pertaining to incoming freshmen choice of major, commitment to major, and career aspirations. Measures of central tendency were utilized to discover information on freshmen students, and to discover differences that might exist between freshmen students enrolled in different majors within the College of Agriculture at Kansas State University. Grand means were calculated to develop a scale for each student in regards to their commitment to their current major, future expectations, and perceptions of barriers to future job placement. Means were compared between majors.

The second objective was to examine factors pertaining to exiting seniors' academic college experience and their expectations of job opportunities. Measures of central tendency were used to find information on senior students, and to discover differences that might exist between exiting senior students enrolled in different majors within the College of Agriculture at Kansas State University. Grand means were created to identify a score of each student in regards to their attitude towards their major, academic experience, and perceptions of barriers towards future job expectations. Participant responses for all factors in the construct were summed and then divided by the number of responses in order to arrive at a mean for each participant. Then

all participant means were summed and divided to arrive at a grand mean for the overall construct. Grand means were also calculated for students within each major.

The final objective was to compare aspirations and expectations, choice of major, and barriers to future employment between freshmen and seniors in the College of Agriculture at Kansas State University. Measures of central tendency were generated to analyze differences. Independent Sample T-Tests were used to compare means between freshmen and seniors.

### **Assumptions and Limitations**

This research had the following assumptions:

- 1.) Students would answer the self-reported questions with an understanding of their personal beliefs.
- 2.) Students were able to recall attitudes and beliefs about previous experiences and knowledge.
- 3.) Students were knowledgeable about academic terminology including major, degree option, minor, etc.

As with most research, procedural obstacles were present in this study and led to the following limitations:

- 1.) Data from this study were collected from an accessible population of 196 exiting seniors who were enrolled in the College of Agriculture at Kansas State University during the Fall of 2015. A total of 549 anticipated graduating seniors for this academic year were enrolled in the College of Agriculture, therefore decreasing the ability to provide descriptive census data for the population and limiting the researcher's ability to draw conclusions.
- 2.) Due to time constraints, no effort was made to control for non-response error.

- 3.) Students answered questions based on their knowledge of terms used. Terms about major could have been misinterpreted to mean option, minor, etc.
- 4.) Responses were collected only from students present in the classroom at the time and day the researcher visited each class.
- 5.) An appropriate exiting senior class meeting time for majors in Agribusiness, Agricultural Economics, Bakery Science and Management, Horticulture, Milling Science and Management, and Wildlife and Outdoor Management could not be arranged, therefore no seniors from these majors were in the data set. Teachers of these suggested classes were contacted three times before concluding that no agreement could be reached.

### **Summary**

This descriptive study was conducted using two questionnaires to determine student information regarding how students chose their majors, commitment to their major, expectations, and aspirations. Additionally, this study examined the differences between freshmen and seniors in regards to choice of major, expectations, and aspirations. The population of this study consisted of 517 freshmen students and 196 exiting seniors within the College of Agriculture at Kansas State University during the Fall 2015 semester.

## **Chapter 4 - Findings**

### **Purpose of this Study**

The purpose of this study was to describe how retention in majors at Kansas State University is affected by the aspirations of incoming freshmen and by career expectations of exiting seniors. Freshmen students entering the College of Agriculture during the 2015 Fall semester were surveyed during their freshmen orientation class to better understand factors pertaining to their choice of major, commitment to their selected major, and future career aspirations. Additionally, to understand exiting seniors' expectations and examine factors pertaining to their academic college experience, 2015 exiting seniors in the College of Agriculture were surveyed during a senior class in the Fall 2015 Semester.

### **Population**

The population of this study consisted of freshmen students enrolled in the College of Agriculture at Kansas State University during the Fall 2015 semester (N = 564), and anticipated graduating seniors this academic year enrolled in the College of Agriculture at Kansas State University (N = 549). A total of 713 students participated (Table 4.1). An appropriate exiting senior class meeting time for majors in Agribusiness, Agricultural Economics, Bakery Science and Management, Horticulture, Milling Science and Management, and Wildlife and Outdoor Management could not be arranged, therefore no seniors from these majors were in the data set. Instructors of these suggested classes were contacted three times before concluding that no satisfactory class time for data collection could be identified. Some student identified those majors as their current major while being surveyed during another major class time.

**Table 4.1**  
*Freshmen current majors of population*

<b>Major</b>	<b>Freshmen</b>		<b>Seniors</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
General Agriculture	9	1.70	0	0.0
Agribusiness	70	13.50	0	0.0
Agricultural Communications and Journalism	21	4.10	1	.50
Agricultural Education	18	3.50	14	7.10
Agricultural Economics	32	6.20	0	0.00
Agricultural Technology Management	6	1.20	12	6.10
Agronomy	37	7.20	24	12.40
Animal Science and Industry	215	41.6	93	47.40
Bakery Science and Management	9	1.70	0	0.00
Feed Science and Management	10	1.90	1	0.50
Food Science and Industry	21	4.10	24	12.20
Horticulture	16	3.10	0	0.00
Milling Science and Management	9	1.70	0	0.00
Park Management and Conservation	25	4.80	20	10.20
Wildlife and Outdoor Enterprise	1	.20	0	0.00
Other	5	.01	5	2.60
Major Not Identified	13	.03	2	1.00

The small, medium and large population sections were fairly consistent in size. However, 9% (n = 46) of freshmen and 8% (n = 15) of seniors were classified as Metropolitan (Table 4.2). Seven students did not respond when asked their zip code.



**Table 4.2**  
*Freshmen student hometown population*

<b>Population</b>	<b>Freshmen</b>		<b>Seniors</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
Small population	152	29.4	75	38.3
Medium population	197	38.1	65	33.2
Large population	115	22.2	41	20.8
Metropolitan	46	8.9	15	7.7
Not identified	7	1.4	---	---

*Note.* Population was divided along natural breaks within reasonable ranges of community size to obtain the most balanced distribution possible. Small population = 1 to 2,500 inhabitants, Medium population = 2,501 to 20,000 inhabitants, Large population = 20,001 to 75,000 inhabitants, and Metropolitan = > 75,001 inhabitants including suburbs.

### **Research Objective One**

The first research objective was to examine factors pertaining to incoming freshmen choice of major, commitment to major, and career aspirations. Data collected from the questionnaire regarded freshmen choice of major, commitment to major, and career aspirations. Additional information on their future job selection, salary expectations, college experience, perceived barriers to future employment, and expectations of job opportunities was also collected.

### **Choice of Major**

In order to better understand the influence factors had on choice of major, freshmen were asked multiple questions regarding how they chose their major. Table 4.3 and Table 4.5 utilized the scale that consisted of “5,” indicating “Very Influential,” “4,” indicating “Influential,” “3,” indicating “Neutral,” “2,” indicating “Somewhat Influential,” and “1,” indicating “Not Influential.” Additionally, Table 4.5 used “0,” indicating “Not applicable,” and a Likert-type

scale that consisted of “5,” indicating “Strongly Agree,” “4,” indicating “Agree,” “3,” indicating “Neutral,” “2,” indicating “Disagree,” “1,” indicating “Strongly Disagree.” Some questions were negatively worded and responses from those questions were reverse coded for comparison purposes.

Participants were asked to indicate the level of influence each factor played in the selection of their major (Table 4.3). “Being interested in my major” (M = 4.54), “Working in a field consistent with my personal values” (M = 4.27), and “Availability of hands-on experiences” (M = 4.22) were the factors with the greatest influence upon choice of major. “Family’s acceptance of major” (M = 3.21), “Fitting in with students in the major” (M = 3.30) were the lowest in influence.

**Table 4.3**  
*Freshmen influence of factors on choice of major (n = 517)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
Being interested in my major	4.54	.66
Working in a field consistent with personal values	4.27	.77
Availability of hands-on experiences	4.22	.80
Future availability of good jobs within this major	4.20	.79
Ability to make a good living within this major	4.14	.83
Desired working conditions of jobs in this field	4.04	.88
Opportunity for higher education	3.87	.94
Making a difference in this field	3.86	.92
Desired location of job opportunities	3.66	.99
Fitting in with students in this major	3.30	1.14
Family’s acceptance of my major	3.21	1.23

Freshmen were asked to what extent they agreed with the listed statements regarding their choice of current major, (Table 4.4). “My family approves of this major” (M = 4.50), “Fitting in this major” (M = 4.17), and “This major aligns with my personal values” (M = 4.06) were the highest positive factors regarding students’ selection of their current major. “Students in the major” (M = 2.65), “Faculty in major” (M = 3.04), and “Community needs more graduates in this major” (M = 3.16) were the least influential factors in how students’ chose their current major.

**Table 4.4**  
*Freshmen influence of perceptions on choice of major (n = 517)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
My family disapproves of this major*	4.50	.76
I don’t see myself fitting in this major well*	4.17	.93
This major aligns with personal values that are important to me	4.06	.84
I chose this major due to future availability of jobs	3.70	1.00
Ag industry needs more graduates of this major	3.63	.96
Prior experience prepared me most for this major	3.62	1.14
My community needs graduates in this major	3.16	1.05
Faculty in major played a large part in my choosing this major	3.04	1.06
Students in major did not play a large role in my selection*	2.65	1.07

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

Participants were asked to best describe the influence each item listed had on their choice of major (Table 4.5). This question utilized “0,” indicating “Not applicable.” All participants (n = 612) who responded “0” were removed from the data computation. “Relatives working in an agriculture industry” (M = 3.96), perception of “Availability of future job openings (M = 3.81), Projected future earnings after graduation (M = 3.73), “Agriculture classes” (M = 3.72), and “Previous 4-H experience” (M = 3.62) had an influence in major selection.

**Table 4.5**  
*Freshmen influence of external factors on choice of major*

<b>Factors</b>	<b>n</b>	<b>M</b>	<b>SD</b>	<b>N/A</b>
Relative working in an agriculture industry	393	3.96	1.17	121
Availability of future job openings	491	3.81	1.04	22
Projected future earnings after graduation	496	3.73	1.04	18
High school agriculture classes	308	3.72	1.29	206
Previous 4-H experience	268	3.62	1.39	245

The grand mean for the construct of choice of major (Table 4.3, Table 4.4, and Table 4.5) was calculated. Participant responses for all twenty-five items in the commitment construct (Table 4.6) were summed and then divided by twenty-five in order to arrive at a mean for each participant. Then all 517 means were summed and divided by 517 to arrive at a grand mean for the overall construct. Grand means were also calculated for students within each major. “Not Applicable” responses were removed from the calculation.

**Table 4.6**  
*Freshmen choice of major grand means by major*

<b>Factors</b>	<b>n</b>	<b>M</b>	<b>SD</b>
Feed Science and Management	10	4.35	.45
Wildlife and Outdoor Enterprise Management	1	4.31	N/A
Bakery Science and Management	9	4.06	.58
Agribusiness	70	4.04	.50
Agronomy	37	4.00	.59
Milling Science and Management	9	3.93	.37
Agricultural Economics	32	3.89	.42
Agricultural Education	18	3.89	.52
General Agriculture	9	3.88	.42
Food Science and Industry	21	3.88	.45
Animal Science and Industry	215	3.85	.58
Horticulture	16	3.85	.47
Agricultural Communications and Journalism	21	3.84	.50
Agricultural Technology Management	6	3.76	.14
Park Management and Conservation	25	3.61	.56
Other/Unidentified	18	3.56	.16
Total	517	3.61	.61

## Commitment to Major

In order to better understand freshmen commitment to major, students were asked about perceptions of their major. Students were asked to report their attitudes toward their current major (Table 4.7). Table 4.7 utilized the scale which consisted of “5” indicating “Strongly Agree,” “4,” indicating “Agree,” “3,” indicating “Neutral,” “2,” indicating “Disagree,” “1,” indicating “Strongly Disagree.” Some questions were negatively worded, and those responses were reverse coded for comparison purposes.

“I can make a difference with this major” (M = 4.42), “This major can get me the job I want” (M = 4.30), and “I don’t feel connected to this major” (M = 4.29) were the most positively selected factors in regards to current attitudes toward a student’s major. “My family accepts this major” (M = 3.20) was the lowest attitude towards their major selection.

**Table 4.7**  
*Freshmen commitment to major (n = 517)*

Factors	M	S.D
I can make a difference with this major*	4.42	.82
This major can get me the job I want	4.30	.91
I feel connected to this major*	4.29	.96
I plan on graduating with this major	4.24	.99
I will work in this major for most of my career	4.15	.96
This major will help me reach higher education*	4.11	1.19
I am fully interested in the topic of my major*	3.93	1.21
I will graduate with this major because family accepts this major	3.20	1.17

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

Students considered to be Committed to their major had either a mean of “5,” indicating “Strongly Agree,” or a mean of “4,” indicating “Agree” to the eight factors. Students classified as Uncommitted had a mean of “3,” indicating “Neutral,” “2,” indicating “Disagree,” or “1,” indicating “Strongly Disagree.” A majority of freshmen were categorized as Committed to their major (65.8%). One hundred and seventy-seven freshmen had an Uncommitted score, representing 34.6% (Table 4.8).

**Table 4.8**  
*Freshmen commitment score frequencies*

<b>Range</b>	<b>n</b>	<b>%</b>
5.0	27	5.2
4.9 – 4.0	312	60.6
3.9 – 3.0	148	28.8
2.9 – 2.0	25	5.0
1.9 – 1.0	4	0.8

The grand mean for the construct of commitment (Table 4.9) was calculated. Participant responses for all eight items in the commitment construct (Table 4.7) were summed and then divided by eight in order to arrive at a mean for each participant. Then all 517 means were summed and divided by 517 to arrive at a grand mean for the overall construct. Grand means were also calculated for students within each major.

**Table 4.9**  
*Freshmen grand mean for commitment to major*

<b>Factors</b>	<b>n</b>	<b>M</b>	<b>SD</b>
Horticulture	16	4.38	.38
Bakery Science and Management	9	4.37	.40
Feed Science and Management	10	4.31	.42
Milling Science and Management	9	4.25	.45
Agricultural Education	18	4.24	.55
Animal Science and Industry	215	4.16	.68
Agronomy	37	4.13	.64
Agribusiness	70	4.03	.51
Other/Unidentified	18	4.03	.63
Park Management and Conservation	25	3.92	.73
Food Science and Industry	21	3.90	.61
Agricultural Economics	32	3.89	.61
Agricultural Technology Management	6	3.83	.64
Agricultural Communications and Journalism	21	3.63	.78
General Agriculture	9	3.51	.72
Wildlife and Outdoor Enterprise	1	2.25	.63
Total	517	4.07	.66



Students were asked if they had ever thought about changing majors (Table 4.10). Forty-two percent reported that they had thought about changing majors (n = 210). Fifty-eight percent reported that they had not thought about changing majors (n = 292).

**Table 4.10**  
*Freshmen thought about changing majors*

<b>Answer</b>	<b>n</b>	<b>%</b>
Yes	210	41.8
No	292	58.2

Students who responded that they had thought about changing majors were asked into which major they would most likely change. Thirty-nine percent reported Other, which could include majors outside the College of Agriculture. Ten percent reported that they would change into Animal Science and Industry. Agribusiness and Wildlife and Outdoor Enterprise Management both received 8% of students (Table 4.11).

**Table 4.11**  
*Freshmen potential new major*

<b>Factors</b>	<b>n</b>	<b>%</b>
Other	78	38.5
Animal Science and Industry	20	10.0
Agribusiness	16	8.0
Wildlife and Outdoor Enterprise	16	8.0
Agricultural Economics	12	6.0
Agronomy	12	6.0
Feed Science and Management	10	5.0
Agricultural Technology Management	8	4.0
General Agriculture	8	4.0
Agricultural Communications and Journalism	5	2.5
Agricultural Education	4	2.0
Park Management and Conservation	4	2.0
Food Science and Industry	3	1.5
Bakery Science and Management	2	1.0
Horticulture	2	1.0
Milling Science and Management	1	0.5

When asked the main reasons for potentially leaving their current major, the highest rated factors included, “The major does not align with my personal goals” (n = 49), “The curriculum does not match my career interests” (n = 42), and “I am not enjoying the classes in which I am enrolled for my major” (n = 40). “My family does not support my choice in major” (n = 1), “I have a personality conflict with one or more faculty in my major” (n = 6), and “I am not sure how I ended up in this major” (n = 9) were the lowest ranked reasons for changing majors (Table 4.12).

**Table 4.12**  
*Freshmen reasons for changing majors*

<b>Factors</b>	<b>n</b>	<b>%</b>
Major does not align with my personal goals	49	19.4
Curriculum does not match my career interests	42	16.7
I am not enjoying classes I am enrolled in for my major	40	15.9
I chose my major without much thought	36	14.3
I don't fit into the culture of my major	32	12.7
I feel disconnected to the students in my major	25	9.9
Scholarship opportunities are better in other majors	12	4.8
I am not sure how I ended up in my current major	9	3.6
I have a personality conflict with one or more faculty	6	2.6
My family does not support my choice of major	1	.1

### **Career Aspirations**

In order to better understand career aspirations of freshmen, questions were asked regarding future goals. Table 4.13 and Table 4.14 utilized a Likert-type scale which consisted of “5,” indicating “Strongly Agree,” “4,” indicating “Agree,” “3,” indicating “Neutral,” “2,”

indicating “Disagree,” “1,” indicating “Strongly Disagree.” Some questions were negatively worded, and those responses were reverse coded for comparison purposes.

Participants were asked to what extent they agreed with the listed factors in regards to their future career goals (Table 4.13). “I would prefer to work in a career centered around my major” (M = 4.22), and “I plan to pursue a career in an agriculture industry relevant to my major” (M= 4.21) were the highest rated aspirations. “I feel that I have a working knowledge of job availabilities within my major” (M = 3.55), “I feel that there is recognition of my major in my community” (M = 3.56), and “I am using my major as a stepping block to higher education” (M = 3.61) were the lowest rated responses.

**Table 4.13**  
*Freshmen aspirations (n = 517)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
I would prefer to work in a career centered around this field	4.22	.81
I plan to pursue a career relevant to my major	4.21	.90
My major will allow me to find a job with good pay*	4.06	.97
Using my major as a stepping stone to more jobs	4.02	.80
This major will allow me to live in my desired location	4.00	.84
This major will allow me to make a difference in the world	3.97	.83
There are adequate opportunities to stand out in my major*	3.87	.95
Using my major as a stepping stone to higher education	3.61	1.00
My community recognizes my major	3.56	1.01
I have knowledge of job availabilities in my major	3.55	.95

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

Participants were asked their attitudes toward future expectations within their major (Table 4.14) “I must choose a job that will help me maintain a good quality of life” (M = 4.23), “My degree will prepare me to take a middle to high level position within my field” (M = 4.11), and “My salary will allow me to maintain a comfortable standard of living in my chosen location after college” (M = 4.08) were the factors with the highest means in regards to expectations of future job opportunities. “Being in a community larger than my hometown is important in the selection of my job” (M = 2.45) was the lowest mean reported of the available factors.

**Table 4.14**  
*Freshmen aspirations of job opportunities (n = 517)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
I must choose a job that will help me maintain a good quality of life	4.23	.76
I will be prepared to take a middle/high level position	4.11	.74
Salary will allow a comfortable standard of living	4.08	.79
I am prepared to take a management/administration position	3.82	.90
Salary is an important factor when selecting a job*	3.39	1.01
Being located near my family is important	3.32	1.10
Being in a community larger than my hometown is important	2.45	1.01

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

The grand mean for the construct of aspirations was compared between majors (Table 4.15). The means from Table 4.13 and Table 4.14 were combined to give a grand mean for each student.

**Table 4.15**  
*Freshmen grand mean for aspirations*

<b>Factors</b>	<b>n</b>	<b>M</b>	<b>SD</b>
Wildlife and Outdoor Enterprise	1	4.48	N/A
Feed Science and Management	10	4.12	.32
Agribusiness	70	3.90	.38
Agronomy	37	3.87	.43
Bakery Science and Management	9	3.82	.31
Agricultural Technology Management	6	3.82	.06
Agricultural Economics	32	3.81	.31
Food Science and Industry	21	3.80	.30
Horticulture	16	3.80	.37
Animal Science and Industry	215	3.79	.43
Milling Science and Management	9	3.77	.37
General Agriculture	9	3.76	.34
Agricultural Education	18	3.74	.39
Park Management and Conservation	25	3.60	.43
Agricultural Communications and Journalism	21	3.56	.37
Other/Unidentified	18	3.53	.35
Total	517	3.81	.41

## Future Job Selection

In order to better understand freshmen perceptions on future job selection, a total of 9 prompts were given (Table 4.16). The participants were asked to rank the top 3 factors most important to future job selection. The top three factors selected by freshmen, in any rank, were “Salary” (n = 324), “Relevance to My Interests” (n = 275), and “Location” (n = 242). The three lowest selected factors were “Community Perception of My Job” (n = 14), “Co-Workers” (n = 25), and “Prestige of Job” (n = 36).

**Table 4.16**  
*Freshmen factors for job selection*

<b>Factors</b>	<b>n</b>	<b>%</b>
Salary	324	24.3
Relevance to my interests	275	20.6
Location	242	18.2
Long term opportunities in this field	170	12.8
Making a difference in this field	132	9.9
Opportunity for advancement	115	8.6
Prestige of job	36	2.7
Co-Workers	25	1.9
Community perception of my job	14	1.0

## **Expectations of Salary**

In order to better understand freshmen expectations of salary, participants were asked to choose the range that best represented the salary they expect to receive annually 1 year, 5 years, and 10 years after graduation (Table 4.17).

Students selected the most appropriate response for their expected salary one year after graduation, with “1,” indicating between “\$0 - \$10,000,” “2,” indicating between “\$10,001 – 30,000,” “3,” indicating between “\$30,001 – 50,000,” “4,” indicating between “\$50,000- 75,000,” “5,” indicating between “\$75,001 – 100,000,” “6,” indicating “ greater than \$100,000,” and “7,” indicating “Unsure.”



**Table 4.17**  
*Freshmen expected salary after graduation*

<b>Factors</b>	<b>n</b>	<b>%</b>
<b>1 Year After Graduation</b>		
\$0 – 10,000	42	9.7
\$10,001 – 30,000	86	19.9
\$30,001 – 50,000	160	37.0
\$50,001 – 75,000	72	16.7
75,001 – 100,000	7	1.6
> \$100,0001	6	1.4
Unsure	58	13.4
<b>5 Years After Graduation</b>		
\$0 – 10,000	3	0.7
\$10,001 – 30,000	20	4.5
\$30,001 – 50,000	98	22.1
\$50,001 – 75,000	169	38.1
75,001 – 100,000	89	20.0
> \$100,0001	16	3.6
Unsure	49	11.0
<b>10 Years After Graduation</b>		
\$0 – 10,000	1	0.2
\$10,001 – 30,000	3	0.7
\$30,001 – 50,000	28	6.6
\$50,001 – 75,000	96	22.5
75,001 – 100,000	107	25.1
> \$100,001	128	30.0
Unsure	63	14.8

For comparison purposes, 2014 and 2015 post-graduation average salary data from Kansas State University Career and Employment Services are presented (Employment Report). Additionally, the number of reported offers by major are recorded in Table 4.18. According to the Kansas State University Career and Employment Services data (Table 4.18), students majoring in Agribusiness, Agricultural Education, Agricultural Economics, Animal Science and Industry, Bakery Science and Management, Feed Science and Management, and Wildlife and Outdoor Enterprise Management students reported a mean within the range that Career and Employment Services reported for the average salary one year after graduation. Agricultural Communication, Agricultural Technology Management, Agronomy, Food Science and Industry, Horticulture, Milling Science and Management, Park Management and Conservation students had an average expected salary one year after graduation which was lower than the average salary one year after graduation reported by Kansas State University Career and Employment Services. No majors reported an average higher than the average salary one year after graduation as reported by Career and Employment Service.

**Table 4.18***Freshmen mean response compared to actual salary averages post-graduation*

<b>Major</b>	<b>n</b>	<b>M</b>	<b>SD</b>	<b>n*</b>	<b>Actual Salary Average*</b>
General Agriculture	8	\$10,001- 30,000	1.98	--	N/A
Agribusiness	58	\$30,001- 50,000	1.18	40	\$47,471
Agricultural Communication	20	\$10,001- 30,000	1.50	5	\$42,140
Agricultural Education	16	\$30,001- 50,000	1.73	10	\$38,325
Agriculture Economics	28	\$30,001- 50,000	1.50	28	\$46,147
Agricultural Technology Management	5	\$10,001- 30,000	1.00	6	\$47,080
Agronomy	27	\$30,001- 50,000	1.25	26	\$50,722
Animal Science and Industry	184	\$30,001- 50,000	2.06	61	\$36,500
Bakery Science and Management	9	\$50,001 – 75,000	1.59	8	\$56,000
Feed Science and Management	10	\$30,001- 50,000	.95	3	\$47,667
Food Science and Industry	16	\$10,001- 30,000	.95	17	\$49,933
Horticulture	13	\$10,001- 30,000	1.72	11	\$37,429
Milling Science and Management	8	\$30,001- 50,000	.46	11	\$62,529
Park Management and Conservation	20	\$10,001- 30,000	.58	11	\$43,165
Wildlife & Outdoor Ent. Management	1	\$30,001- 50,000	N/A	7	\$40,200
<b>Total</b>	<b>423</b>	<b>\$30,001- 50,000</b>	<b>--</b>	<b>--</b>	<b>--</b>

*\*Note: Actual Salary average based on 2014 graduate data from the Career and Employment Services*

## College Experience

Several questions were asked to better understand freshmen college experience thus far at Kansas State University, and their anticipated experiences during their academic career. To determine freshmen college academic experience, including curriculum, extracurricular activities, and work experience, participants were asked what they anticipate they will participate in during their time at Kansas State University (Table 4.19). Table 4.19 utilized a Likert-type scale that consisted of “5,” indicating “Strongly Agree,” “4,” indicating “Agree,” “3,” indicating “Neutral,” “2,” indicating “Disagree,” “1,” indicating “Strongly Disagree.” “I will participate in an internship related to my major” (M = 4.26), and “I will participate in a student organization within the College of Agriculture” (M = 4.13) were the top rated experiences students expected to pursue. “I will have a non-career related part time job on campus” (M = 2.79) and “I will participate on a competitive/judging team in the College of Agriculture” (M = 2.80) were the lowest rated expected experiences.

**Table 4.19**  
*Freshmen college experience (n = 517)*

Factors	M	SD
Participate in an internship related to my major	4.26	.81
One student organization in the College of Agriculture	4.13	.96
Participate in one student organization outside of the College of Agriculture	3.66	1.09
Career-related part-time job off campus	3.30	.99
Participate in a study abroad	3.21	1.23
Career-related part time job on campus	3.20	1.07
Non-career related part-time job off campus	2.88	1.06
Compete on a judging team in the College of Agriculture	2.80	1.08
Non-career related part time job on campus	2.79	1.00

When asked to rate their college experience, more than 88% students reported having extremely positive or positive experience thus far at Kansas State University (Table 4.20). Seven students (1.4%) reported Negative or Extremely negative experiences.

**Table 4.20**  
*Freshmen college experience thus far*

<b>Factors</b>	<b>n</b>	<b>%</b>
Extremely positive	155	31.0
Positive	288	57.6
Neutral	50	10.0
Negative	6	1.2
Extremely negative	1	0.2

## Perceived Barriers to Future Employment

To determine freshmen perceptions of barriers to future employment, participants were asked to what extent each factor would act as a barrier to future employment (Table 4.21). Table 4.21 utilized a Likert-type scale that consisted of “5,” indicating “Strongly Agree,” “4,” indicating “Agree,” “3,” indicating “Neutral,” “2,” indicating “Disagree,” “1,” indicating “Strongly Disagree.” All factors pertaining to perceived barriers to future employment within a major had a mean indicating “Disagree” or “Strongly Disagree.”

**Table 4.21**

*Freshmen perceived barriers to future employment (n = 517)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
Location too far from family	2.15	.90
Not enough opportunities to speak with employers	2.13	.95
I won't be competitive	2.08	.94
Salary not allow for a good way of life	2.00	.86
Positions will be unavailable	1.97	.86
Job won't be in my field of interest	1.93	.86
Not enough opportunities to speak with contacts	1.92	.78
I won't be academically prepared	1.91	.81

The grand mean for the construct of barriers to future employment was compared among majors (Table 4.22). The grand mean was calculated from the means of Table 4.21 for each student.

**Table 4.22**  
*Freshmen grand mean of barriers to future employment*

<b>Major</b>	<b>n</b>	<b>M</b>	<b>SD</b>
General Agriculture	9	2.37	.59
Park Management and Conservation	25	2.22	.49
Agricultural Technology Management	6	2.19	.75
Agricultural Communication	21	2.13	.49
Other/Unidentified	18	2.11	.81
Animal Science and Industry	215	2.07	.70
Agriculture Economics	32	2.00	.53
Wildlife and Outdoor Enterprise Management	1	2.00	.52
Agribusiness	70	1.99	.65
Food Science and Industry	21	1.94	.52
Bakery Science and Management	9	1.87	.56
Agronomy	37	1.83	.54
Agricultural Education	18	1.78	.48
Feed Science and Management	10	1.67	.43
Milling Science and Management	9	1.66	.50
Horticulture	16	1.64	.50
Total	517	2.01	.63

## **Research Objective Two**

The second research objective was to examine factors pertaining to exiting seniors' academic college experience and their expectations of job opportunities. Data collected from the questionnaire included seniors' academic college experience and expectations of job opportunities. Additional information on seniors' choice of major, expectation of salary, barriers to employment, and future job selection was also gathered.

### **College Experience**

To determine students' perceptions of their entire academic college experience, questions were centered around degree curriculum, perceptions of preparedness, and college participation. Table 4.23 utilized a Likert-type scale that consisted of "5," indicating "Strongly Agree," "4," indicating "Agree," "3," indicating "Neutral," "2," indicating "Disagree," and "1," indicating "Strongly Disagree." Some questions were negatively worded, and those responses were reverse coded for comparison purposes.

Exiting seniors were asked to best describe their feelings toward their academic college experience (Table 4.23). "My curriculum was well rounded and prepared me for a career" ( $M = 4.02$ ), "I had support from K-State faculty" ( $M = 3.95$ ), and "I was able to make contacts within the industry during my time at Kansas State University" ( $M = 3.84$ ) were the highest three experiences within a major. "I had multiple opportunities to stand out from my peers" ( $M = 3.33$ ) and "My major was essential in helping me find a job" ( $M = 3.53$ ) were the lowest experiences. All factors were reported from "Neutral" to "Agree."



**Table 4.23***Senior academic college experience (n = 196)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
My curriculum was well rounded and prepared me for a career *	4.02	.86
I had support from K-State faculty	3.95	.84
I was able to make contacts within the industry*	3.84	.91
I did have enough opportunities to gain hands or experience*	3.77	.93
I am academically prepared for the work force	3.74	.80
Communication skills were stress in my curriculum	3.74	.90
I did have many chances to learn and use leadership/managerial skills*	3.72	.87
There was ample discussions about internship opportunities	3.68	.90
I developed confidence about what will come after graduation	3.68	.94
There was enough class discussion about career opportunities*	3.65	.93
My prior agriculture experience influenced my enjoyment of my major	3.61	1.34
My major was essential in helping me find a job	3.53	.99
I had multiple opportunities to stand out from my peers	3.33	.88

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

College participation described student involvement in various experiences in college. Students were asked to indicate “Yes” or “No.” In College Participation (Table 4.24), an average of 39% of seniors reported that they had had some type of employment during their college career. More than half of exiting seniors reported having participated in an internship related to their major (56.1%), while only 11.7% reported taking part in a study abroad experience. Half of exiting seniors claimed to have participated in at least one student organization outside the College of Agriculture (51.0%), while 59.7% of seniors participated in at least one student organization within the College of Agriculture. More students reported working off campus than on campus, with 45.9% and 42.9% working off campus, and 42.3% and 25% working on campus.

**Table 4.24**  
*Senior college participation*

<b>Factors</b>	<b>Yes</b>	<b>%</b>
One student organization in the College of Agriculture	117	59.7
Participated in an internship related to my major	110	56.1
Participated in one student organization outside of the college of agriculture	100	51.0
Non-career related part time job off campus	90	45.9
Career-related part time job off campus	84	42.9
Career-related part time job on campus	83	42.3
Non-career related part time job on campus	49	25.0
Compete on a judging team in the college of agriculture	35	17.9
Participated in a study abroad	23	11.7

Students were asked if they had changed majors during their academic career at Kansas State University (Table 4.25). Twenty-nine percent (n = 56) reported they had changed majors, while 71% (n = 136) reported that they had not changed majors.

**Table 4.25**  
*Senior changed majors*

<b>Answer</b>	<b>n</b>	<b>%</b>
Yes	56	29.2
No	136	70.8

Those who had changed majors were asked to indicate the top reasons for changing, by checking all that applied (Table 4.26). “The major did not align with my personal goals” (12.8%), “The curriculum did not match my career interests” (12.8%), and “I did not enjoy the classes in which I was enrolled for my major” (12.8%), were the top three chosen factors. “My family did not support my choice in major” (0%), “I had a personality conflict with one or more faculty in my major” (1.5%), and “Scholarship opportunities were better in other majors” (1.5%) were the lowest reported factors.

**Table 4.26**  
*Senior reasons for changing majors*

<b>Factors</b>	<b>n</b>	<b>%</b>
Major does not align with my personal goals	25	12.8
Curriculum does not match my career interests	25	12.8
I am not enjoying classes I am enrolled in for my major	25	12.8
I chose my major without much thought	17	8.7
I don't fit into the culture of my major	12	6.1
I feel disconnected to the students in my major	7	3.6
I am not sure how I ended up in my current major	5	2.6
Scholarship opportunities are better in other majors	3	1.5
I have a personality conflict with one or more faculty	3	1.5
My family does not support my choice of major	0	0.0

Students who changed majors were asked their original major before changing (Table 4.27). Fifty percent (n = 28) reported coming from outside the College of Agriculture. Twenty-nine percent reported beginning their career in Animal Science and Industry (n = 16).

**Table 4.27**  
*Seniors previous major before changing*

<b>Factors</b>	<b>n</b>	<b>%</b>
Outside COA/Other	28	50.0
Animal Science and Industry	16	28.6
Agribusiness	3	5.3
Agricultural Education	3	5.3
Agricultural Technology Management	2	3.6
Agricultural Communications and Journalism	1	1.8
Agronomy	1	1.8
General Agriculture	1	1.8
Milling Science and Management	1	1.8
Agricultural Economics	0	0.0
Bakery Science and Management	0	0.0
Feed Science and Management	0	0.0
Food Science and Industry	0	0.0
Horticulture	0	0.0
Park Management and Conservation	0	0.0
Wildlife and Outdoor Enterprise	0	0.0

Exiting seniors were asked how many times they had changed majors. Seventy-five percent of those who responded to this question, reported only changing one time (n = 42); 16% (n = 9) reported having changed two times, and 8.9% (n = 5) changed their major three times (Table 4.28).

**Table 4.28**  
*Senior major changes*

<b>Factors</b>	<b>n</b>	<b>%</b>
1 time	42	75.0
2 times	9	16.0
3 times	5	8.9
4 times	0	0.0
5 or more times	0	0.0

When asked how many semesters in their major they completed before changing to a different major, 46.4% (n = 26) reported one semester. Twenty-nine percent (n = 16) reported having completed two semesters before changing. Only one student (1.8%) reported having completed 10 semesters before changing majors (Table 4.29).

**Table 4.29**  
*Senior semesters before changing majors*

<b>Factors</b>	<b>n</b>	<b>%</b>
1 semester	26	46.4
2 semesters	16	28.6
3 semesters	5	8.9
4 semesters	5	8.9
5 semesters	1	1.8
6 semesters	2	3.6
7 semesters	0	0.0
8 semesters	0	0.0
9 semesters	0	0.0
10 or more semesters	1	1.8

Exiting seniors were asked to select the most accurate term in regards to their academic college experience at Kansas State University (Table 4.30). Eighty-seven percent of students (n = 167) reported having either an “Extremely positive” or “Positive” experience. Eleven percent (n = 22) of seniors reported having a “Neutral” experience, and 2% (n = 4) reported a “Negative” experience.

**Table 4.30**  
*Senior college experience*

<b>Factors</b>	<b>n</b>	<b>%</b>
Extremely positive	66	34.2
Positive	101	52.3
Neutral	22	11.4
Negative	4	2.1
Extremely negative	0	0.0

## Expectations of Job Opportunities

To determine student expectations of future job opportunities, questions centered around factors in job selection and work preferences. Table 4.31 utilized a Likert-type scale that consisted of “5,” indicating “Strongly Agree,” “4,” indicating “Agree,” “3,” indicating “Neutral,” “2,” indicating “Disagree,” “1,” indicating “Strongly Disagree.” One question was negatively worded, which was reverse coded for comparison purposes.

Seniors were asked to best describe their attitude toward their future expectations within their major (Table 4.31), “Being in a community larger than my hometown is important to me” (M = 2.17) was the lowest reported mean, while “Salary is an important factor in selecting a job” (M = 4.10) and “I must choose a job that will help me maintain a good quality of life” (M = 4.10) were the highest reported factors.

**Table 4.31**

*Senior expectations of job opportunities (n = 196)*

Factors	M	SD
Salary is an important factor when selecting a job*	4.10	.93
I must choose a job that will help me maintain a good quality of life	4.10	.71
Salary will allow a comfortable standard of living	3.67	.79
I am prepared to take a middle/high level position	3.63	.75
I am prepared to take a management/administration position	3.36	.92
Being located near my family is important	3.55	1.15
Being in a community larger than my hometown is important	2.17	.90

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

Seniors were asked to best describe their feelings toward their career goals (Table 4.32). Table 4.32 utilized a Likert-type scale that consisted of “5,” indicating “Strongly Agree,” “4,” indicating “Agree,” “3,” indicating “Neutral,” “2,” indicating “Disagree,” “1,” indicating



“Strongly Disagree.” Some questions were negatively worded, which were reverse coded so that all answers would read positively. Responses from those questions were reverse coded for comparison purposes.

All factors were indicated to be within the “Neutral” to “Agree” range. “I prefer to work in a career centered around my major” (M= 4.19) and “Pursue a career relevant to my major” (M = 4.13) were the highest selected career goals. “Using my major as a stepping stone to higher education” (M = 3.21) was the lowest regarded factor.

**Table 4.32**

*Senior career goals (n = 196)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
I prefer to work in a career centered around my major	4.19	.80
I plan to pursue a career relevant to my major	4.13	.94
Using my major as a stepping stone to more jobs	3.94	.81
This major will allow me to make a difference in the world	3.93	.82
My major will allow me to find a job with good pay*	3.76	1.00
There are adequate opportunities to stand out in my major*	3.70	.87
This major will allow me to live in my desired location	3.70	.86
I have knowledge of job availabilities in my major	3.58	.88
My community recognizes my major	3.40	1.00
Using my major as a stepping stone to higher education	3.21	1.10

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

Exiting seniors were asked about their future career expectations (Table 4.33). Fifty percent of students (n = 82) reported that they intend to “move up” in the company of their choice within 5 years of graduation. Thirty-one percent (n = 48) reported that they will start their own business within 10 years after graduation. Thirty-six percent (n = 58) anticipate working in management/administration within 5 years of graduation. Sixty-six percent of exiting seniors (n = 112) anticipated that they will still be in their first position out of college 1 year after graduation, while 12% (n = 20) reported they would be in their first position 5 years after college.

Only 10 seniors (6.7%) indicated that they would be in a different field from their major within ten years post-graduation. Almost 49.1% (n = 77) of seniors plan on more education after graduation. One hundred and forty students (93.3%) plan to be employed after graduation.

**Table 4.33**  
*Senior career goals after graduation*

<b>Factors/Years After Graduation</b>	<b>N/A</b>		<b>1 year</b>		<b>5 years</b>		<b>10 years</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
I will move up in the company of my choice	30	18.32	38	23.24	82	50.00	14	8.51
I will start my own business	75	47.83	9	5.72	25	15.92	48	30.61
I will be in management/administration	41	25.22	30	18.42	58	35.62	34	20.94
I will still be in my first position out of college	33	19.64	112	66.72	20	11.91	3	1.82
I will be in a different field from my first job	91	60.71	14	9.32	18	12.1	27	18.4
I will be in a different field from my major	120	80.53	13	8.72	6	4.10	10	6.72
I will continue education within my major	80	51.20	34	21.72	34	21.74	9	5.80

The grand mean for the construct of expectations is compared between majors (Table 4.34). The means from Table 4.32 and Table 4.33 were used to calculate a grand mean for the construct of Expectations.

**Table 4.34**  
*Senior grand mean for expectations*

<b>Factors</b>	<b>n</b>	<b>M</b>	<b>SD</b>
Agronomy	24	3.95	.35
Feed Science and Management	1	3.92	N/A
Agricultural Comm. and Education	1	3.88	N/A
Agricultural Education	14	3.81	.34
Other/Unidentified	7	3.82	.42
Agricultural Technology Management	12	3.72	.21
Animal Science and Industry	93	3.62	.40
Food Science and Industry	24	3.61	.42
Park Management and Conservation	20	3.48	.31
Total	196	3.76	.39

### **Choice of Major**

In order to understand how seniors chose their major, participants were asked questions about their current major. Table 4.35 and Table 4.36 utilized the scale which consisted of “5,” indicating “Very Influential,” “4,” indicating “Influential,” “3,” indicating “Neutral,” “2,” indicating “Somewhat Influential,” and “1,” indicating “Not Influential.” Additionally, questions in Table 4.36 utilized “0,” indicating “Not applicable.”

Seniors were asked to describe the influence each factor played in their selection of their current major (Table 4.35). “Being interested in my major” (M = 4.44), and “Working in a field

consistent with my personal values” (M = 4.13) were the top factors on senior’s selection of their major. “Fitting in with students” (M = 2.97) was the least influential of the available factors in regards to how seniors chose their majors.

**Table 4.35**  
*Senior influence of factors on choice of major (n = 196)*

<b>Factors</b>	<b>M</b>	<b>SD</b>
Being interested in my major	4.44	.65
Working in a field consistent with my personal values	4.13	.82
Availability of hands-on experiences	3.96	.93
Future availability of good jobs within this major	3.82	1.00
Ability to make a good living within this major	3.78	.94
Desired working conditions of jobs in this field	3.77	1.00
Making a difference in this field	3.70	.98
Family’s acceptance of my major	3.55	1.20
Desired location of job opportunities	3.47	1.14
Opportunity for higher education	3.42	1.21
Fitting in with students in this major	2.97	1.26

Participants were asked to what extent each factor influenced their choice of major (Table 4.36). Of the exiting seniors who have a relative working in an agricultural industry, the mean (M = 4.05) indicated “Influential.” “Projected future earnings after graduation” (M = 2.89) indicated “Somewhat Influential.”

**Table 4.36***Senior influence of external factors on choice of major*

<b>Factors</b>	<b>n</b>	<b>M</b>	<b>SD</b>	<b>N/A</b>
Relative working in an agriculture industry	152	4.05	1.20	44
Previous 4-H experience	95	3.63	1.47	101
Availability of future job openings	189	3.30	1.21	7
High school agriculture classes	110	3.12	1.44	86
Projected future earnings after graduation	196	2.89	1.34	0

The grand mean for the construct of choice of major (Table 4.37) was calculated. The means from Table 4.35 and Table 4.36 were used to calculate a grand mean for the construct of “Choice of major” for each student. “Not Applicable” responses to Question 4 were removed from the calculation. Significant difference was considered .05 and below. No significant difference was found among majors.

**Table 4.37***Senior grand mean for choice of major*

<b>Factors</b>	<b>n</b>	<b>M</b>	<b>SD</b>
Agricultural Education	14	4.10	.37
Agronomy	24	3.85	.47
Agricultural Technology Management	12	3.75	.41
Food Science and Industry	24	3.64	.73
Park Management and Conservation	20	3.58	.28
Animal Science and Industry	93	3.48	.60
Other/Unidentified	7	3.15	.35
Agricultural Comm. and Education	1	2.42	N/A
Feed Science and Management	1	2.31	N/A
Total	196	3.36	.65

## **Expectations of Salary**

Participants were asked to choose the range that best represented their expected annual salary 1 year, 5 years, and 10 years after graduation (Table 4.38). Students selected the most appropriate response for their expected salary one year after graduation, with “1,” indicating between “\$0 - \$10,000,” “2,” indicating between “\$10,001 – 30,000,” “3,” indicating between “\$30,001 – 50,000,” “4,” indicating between “\$50,000- 75,000,” “5,” indicating between “\$75,001 – 100,000,” “6,” indicating “greater than \$100,000,” and “7,” indicating “Unsure.” For comparison purposes, 2014 and 2015 post-graduation average salary data, from Kansas State University Career and Employment Services, are presented.

**Table 4.38**  
*Senior expected salary after graduation*

<b>Factors</b>	<b>n</b>	<b>%</b>
<b>1 Year After Graduation</b>		
\$0 – 10,000	12	6.6
\$10,001 – 30,000	35	19.2
\$30,001 – 50,000	88	48.4
\$50,001 – 75,000	27	14.8
75,001 – 100,000	0	0.0
> \$100,0001	0	0.0
Unsure	20	11.0
<b>5 Years After Graduation</b>		
\$0 – 10,000	1	0.5
\$10,001 – 30,000	6	3.2
\$30,001 – 50,000	49	26.1
\$50,001 – 75,000	82	43.6
75,001 – 100,000	28	14.9
> \$100,0001	4	2.1
Unsure	18	9.6
<b>10 Years After Graduation</b>		
\$0 – 10,000	1	0.6
\$10,001 – 30,000	0	0.0
\$30,001 – 50,000	10	5.5
\$50,001 – 75,000	46	25.4
75,001 – 100,000	49	27.1
> \$100,0001	45	24.9
Unsure	30	16.6

Data (Table 4.39) were used from Kansas State University Career and Employment Services website for comparison (Employment Report). Exiting seniors in Agronomy projected slightly lower expected salaries than the average salary one year out of college according to the Career and Employment Services data. All other majors surveyed were within the typical ranges found for recent graduates. Agreement on a class meeting time could not be found for all majors of seniors. Therefore, only those ranges for majors surveyed are reported in Table 4.39.

**Table 4.39**  
*Senior mean response compared to actual salary averages post-graduation*

<b>Major</b>	<b>n</b>	<b>M</b>	<b>SD</b>	<b>n*</b>	<b>Actual Salary Average*</b>
Agricultural Communication	1	\$30,001- 50,000	1.81	5	\$42,140
Agricultural Education	11	\$30,001- 50,000	1.35	10	\$38,325
Agricultural Technology Management	11	\$30,001- 50,000	1.35	6	\$47,080
Agronomy	24	\$30,001- 50,000	1.04	26	\$50,722
Animal Science and Industry	86	\$30,001- 50,000	1.65	61	\$36,500
Feed Science and Management	1	Unsure	N/A	3	\$47,667
Food Science and Industry	22	\$30,001- 50,000	1.65	17	\$49,933
Park Management and Conservation	19	\$10,001- 30,000	.68	11	\$43,165
Total	175	\$30,001- 50,000	--		--

*\*Note: Actual Salary average based on 2014 graduate data from the Career and Employment Services*



## Barriers to Future Employment

In order to better understand seniors' perceptions of barriers to future employment, students were asked to indicate any factors they anticipated hindering them in selection of a job. This question utilized a Likert-type scale which consisted of "5," indicating "Strongly Agree," "4," indicating "Agree," "3," indicating "Neutral," "2," indicating "Disagree," "1," indicating "Strongly Disagree."

Participants were asked to what extent they believed each factor would be a barrier to future employment (Table 4.40). All factors pertaining to perceived barriers to future employment within a major had a mean indicating "Disagree."

**Table 4.40**  
*Senior perceived barriers to future employment (n = 196)*

<b>Factors</b>	<b>M</b>	<b>S.D</b>
I won't be competitive	2.42	1.04
Not enough opportunities to speak with contacts	2.29	.89
Not enough opportunities to speak with employers	2.27	.97
Location too far from family	2.26	.94
Positions will be unavailable	2.22	1.00
Salary will not allow for a good way of life	2.21	.83
I won't be academically prepared	2.20	.93
Job won't be in my field of interest	2.08	.92

The grand mean for the construct of barriers to employment (Table 4.41) was calculated. The means from Table 4.40 were used to calculate a grand mean for the construct of “Barriers to Future Employment” for each student.

**Table 4.41**  
*Senior grand mean for barriers to future employment*

<b>Major</b>	<b>n</b>	<b>M</b>	<b>SD</b>
Agricultural Communication and Education	1	3.38	.54
Park Management and Conservation	20	2.53	.52
Food Science and Industry	24	2.35	.57
Animal Science and Industry	93	2.32	.67
Feed Science and Management	1	2.32	.52
Agricultural Technology Management	12	2.14	.66
Agricultural Education	14	1.92	.39
Agronomy	24	1.84	.67
Other/Unidentified	7	1.39	.65
Total	196	2.24	.65

## Future Job Selection

In order to better understand level of influence nine different factors played in future job selection, senior students were asked to select the top three factors from the possible choice that would be the most influential in their future job selection (Table 4.42). The three factors most frequently selected were “Salary” (n = 118), “Location” (n = 113), and “Relevance to my interest” (n = 91). The three least frequently selected factors were “Prestige of Job” (n = 6), and “Community Perception of My Job” (n = 9), and “Co-Workers” (n = 18).

**Table 4.42**  
*Senior factors for job selection*

<b>Factors</b>	<b>n</b>	<b>%</b>
Salary	118	23.1
Location	113	22.1
Relevance to my interests	91	17.8
Long term opportunities in this field	65	12.7
Opportunity for advancement	47	9.2
Making a difference in this field	44	8.6
Co-Workers	18	3.5
Community perception of my job	9	1.8
Prestige of job	6	1.2

### **Research Objective Three**

The third research objective was to compare aspirations and expectations, choice of major, and barriers to future employment between freshmen and seniors in the College of Agriculture at Kansas State University.

#### **Aspirations and Expectations**

In order to better understand freshmen and senior aspirations, both group aspirations were compared (Table 4.43). In Aspirations, when asked if it was preferable to work in a career centered around one's current major, freshmen reported "Agree" ( $M = 4.22$ ) and seniors also reported "Agree" ( $M = 4.19$ ). Additionally, when asked if they had knowledge of adequate job availabilities in their major, freshmen reported "Neutral" ( $M = 3.55$ ). Seniors also reported "Neutral" ( $M = 3.58$ ). Some questions were negatively worded, and those responses were reverse coded for comparison purposes.

**Table 4.43**  
*Aspirations*

<b>Factors</b>	<b>Freshmen</b>		<b>Seniors</b>	
	<b>n = 517</b>		<b>n = 196</b>	
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>
Work in a career centered around this major	4.22	.81	4.19	.80
Pursue a career relevant to my major	4.21	.90	4.13	.94
Major will allow me to find a good job with good pay*	4.06	.97	3.76	1.00
A stepping stone to more jobs	4.02	.80	3.94	.81
Will allow me to live in my desired location	4.00	.84	3.70	.86
Will allow me to make a difference	3.97	.83	3.93	.82
There are opportunities to stand out in my major*	3.87	.95	3.70	.87
Stepping stone to higher education	3.61	1.00	3.21	1.00
My community recognizes my major	3.56	1.01	3.40	1.00
I have knowledge of jobs in my major	3.55	.95	3.58	1.10

*Note:* indicates a reverse coded question, means for these items are the result of reverse coding

When comparing freshmen and seniors' expectations of job opportunities (Table 4.44), both freshmen and seniors reported that "I must choose a job that will help me maintain a good quality of life" was important, with freshmen reporting a mean of 4.23, and seniors reporting a mean of 4.10. Additionally, "being in a community larger than my hometown is important to me" was the lowest factor for both freshmen ( $M = 2.45$ ) and seniors ( $M = 2.17$ ). Furthermore, freshmen reported a higher mean ( $M = 4.11$ ) when asked if they felt they would be ready to take a middle to high-level position after graduation. Seniors reported a mean of 3.63. When asked if they felt they would be ready to take a management or administration role after graduation, freshmen ( $M = 3.82$ ) reported a higher mean than seniors ( $M = 3.36$ ). "Salary is an important

factor when selecting a job” had a lower reported freshmen mean (M = 3.58), while seniors reported a higher mean (M = 4.1).

**Table 4.44**  
*Expectations of job opportunities*

Factors	<u>Freshmen</u>		<u>Seniors</u>	
	n = 517		n = 196	
	M	SD	M	SD
A job that will help me have a good quality of life	4.23	1.01	4.10	.71
Salary will allow a comfortable standard of living	4.08	.76	3.67	.79
Prepared to take a middle/high level position	4.11	.74	3.63	.75
Take a management/administration position	3.82	.79	3.36	.92
Salary is an important factor when selecting a job*	3.58	.90	4.10	.93
Located near my family is important	3.32	1.01	3.55	1.15
Community larger than my hometown is important	2.45	1.10	2.17	.90

*Note:* \* indicates a reverse coded question, means for these items are the result of reverse coding

An independent-samples T-Test was conducted to compare the grand mean of aspirations/expectations between freshmen and seniors (Table 4.45). Significance was found to be .00, however this significance is most likely due to the population difference between the two samples and caution should be used when evaluating statistical differences from Table 4.45.

**Table 4.45**  
*Independent T-Test for aspirations/expectations by status*

Factors	<u>Freshmen</u>			<u>Seniors</u>			t	df	p
	n	M	SD	n	M	SD			
Aspirations/Expectations	517	3.81	.41	196	3.76	.39	5.25	711	.00

## Barriers to Future Employment

In order to better understand perceptions of future barriers to employment, both freshmen and seniors were asked to respond to eight factors (Table 4.46). In Barriers to future employment, all factors were within the “Disagree” to “Strongly Disagree” range for both freshmen and seniors. Freshmen reported that “Location of my job will be too far from my family” (M = 2.15) they strongly disagreed with this statement, while seniors, (M = 2.26) disagreed with this statement.

**Table 4.46**  
*Barriers to future employment*

Factors	<u>Freshmen</u>		<u>Seniors</u>	
	n = 517		n = 196	
	M	SD	M	SD
No opportunities to speak with employers	2.13	.90	2.27	.97
I won't be academically prepared	1.91	.95	2.20	.93
No opportunities to speak with contacts	1.92	.94	2.29	.89
Location too far from family	2.15	.86	2.26	.94
Job won't be in my field of interest	1.93	.86	2.08	.92
Positions will be unavailable	1.97	.86	2.22	1.00
I won't be competitive	2.08	.78	2.42	1.04
Salary not allow for a good way of life	2.00	.81	2.21	.836

An independent-samples T-Test was conducted to compare the grand mean of barriers to future employment to freshmen and seniors (Table 4.47). There was a significance between freshmen and seniors regarding barriers to future employment, however this significance is most

likely due to the population difference between the two samples and caution should be used when evaluating significance.

**Table 4.47**  
*Independent T-Test for barriers to future employment by status*

<b>Factors</b>	<b><u>Freshmen</u></b>			<b><u>Seniors</u></b>			<b>t</b>	<b>df</b>	<b>p</b>
	<b>n</b>	<b>M</b>	<b>SD</b>	<b>n</b>	<b>M</b>	<b>SD</b>			
Barriers	517	2.01	.63	196	2.24	.65	-4.34	707	.00

### **Choice of Major**

To better understand how freshmen and seniors chose their current major, students were asked multiple questions regarding selection of degree (Table 4.48). Personal factors, including interest in major and consistency with personal values were reported as the most influential factors in both freshmen and senior samples. Both samples indicated similar means on each factor, however, seniors had several factors that ranked lower than freshmen factors. Opportunity for higher education, fitting in with students, and family’s acceptance of major had a different emphasis for seniors than freshmen. Opportunity for higher education and fitting in with students had a higher mean for freshmen than seniors, however, family’s acceptance of a major had more influence on seniors regarding how they chose their major.



**Table 4.48**  
*Choice of major*

<b>Factors</b>	<b>Freshmen</b>		<b>Seniors</b>	
	<b>n = 517</b>		<b>n = 196</b>	
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>
Being interested in my major	4.54	.66	4.44	.65
Work consistent with personal values	4.27	.77	4.13	.82
Availability of hands-on experiences	4.22	.80	3.96	.93
Future availability of good jobs	4.20	.79	3.82	1.00
Ability to make a good living	4.14	.83	3.78	.94
Working conditions of job	4.04	.88	3.77	1.00
Opportunity for higher education	3.87	.94	3.42	1.21
Making a difference	3.86	.92	3.70	.98
Desired location of jobs	3.66	.99	3.47	1.14
Fitting in with students	3.30	1.14	2.97	1.26
Family's acceptance of my major	3.21	1.23	3.55	1.20

Students were asked to evaluate their background experience and its influence upon their choice of major (Table 4.49) The majority of freshmen who have a relative working in an agricultural industry reported that their relative was “Neutral” (M = 3.96) in their selection of their current major, while seniors reported that their relative was “Influential” (M = 4.05).

**Table 4.49**  
*Influence of external factors on choice of major*

<b>Factors</b>	<b>Freshmen</b>				<b>Seniors</b>			
	<b>n</b>	<b>M</b>	<b>SD</b>	<b>N/A</b>	<b>n</b>	<b>M</b>	<b>SD</b>	<b>N/A</b>
Relative in an agriculture industry	393	3.96	1.17	121	152	4.05	1.20	44
Availability of job openings	491	3.81	1.04	22	189	3.30	1.21	7
Projected future earnings	496	3.73	1.04	18	196	2.89	1.34	0
High school agriculture classes	308	3.72	1.29	206	110	3.12	1.44	86
Previous 4-H experience	268	3.62	1.39	245	95	3.63	1.47	101

An independent-samples T-Test was conducted to compare the grand mean of choice of major to freshmen and seniors (Table 4.50). Significance was found between the freshmen and senior samples; however, this is most likely due to the difference of sample sizes.

**Table 4.50**  
*Independent T-Test for choice of major by status*

<b>Factors</b>	<b><u>Freshmen</u></b>			<b><u>Seniors</u></b>			<b>t</b>	<b>df</b>	<b>p</b>
	<b>n</b>	<b>M</b>	<b>SD</b>	<b>n</b>	<b>M</b>	<b>SD</b>			
Choice of major	517	3.61	.61	196	3.36	.65	4.78	711	.00

Both freshmen and seniors reported having chosen their majors based on their personal interest in the major and the consistency of the major to their personal values. Their aspirations and expectations were positive, and they had a positive outlook on their future careers. Additionally, both group respondents reported having a positive experience at Kansas State University, and had confidence that their academic foundation is preparing them for the current work force. Both freshmen and seniors reported not having confidence in job opportunities within their majors, but did not feel that there would be many barriers to their employment. For those students who had a relative in an agriculture industry, that relative was reported as being influential in a student's choice of major. However, previous agriculture experience through 4-H and high school ag classes reported lower means and participation.

When comparing the grand mean construct between the freshmen and senior groups, very little significance was found. Food Science and Industry and Agricultural Technology Management all showed a significance in their aspirations/expectations. Additionally, Food Science and Industry showed a significance in the barriers to future employment construct.

However, due to the differences in sample size, confidence in the comparison between freshmen and seniors cannot be confirmed. Non statistical analysis of differences between freshmen and seniors reveals very few practical differences between the two groups.

## **Summary of Findings**

### **Research Objective One**

The characteristics gathered from freshmen students at Kansas State University regarding choice of major indicate that interest in major is one of the most influential factors in choice of major. Freshmen also indicated that their families were supportive of their major. Family approval of a major had a high influence on selection of a major ( $M = 4.50$ ), however, when looking at commitment to major, family approval was lower ( $M = 3.20$ ). Freshmen were interested in making a difference, and have expressed confidence that their selected majors would allow them to secure the job they want. A majority of freshmen are committed to their major, however, 42% of freshmen have thought about changing majors. Reasons for thinking about changing majors mostly included intrinsic factors; personal goals, dissonance with curriculum, and class enjoyment. College factors outside of academics ranked lower than curriculum and course factors, such as scholarship opportunities, faculty relationships, and culture of major. Animal Science was the most popular major indicated in regards to potential new major for students considering changing majors.

Freshmen also were positive about career aspirations. Careers centered around their major were important in their selection of a job. Additionally, students indicated a belief that their major will prepare them for the career force, however, freshmen ranked knowledge of job availabilities as the lowest factor ( $M = 3.55$ ). Additionally, freshmen disagreed to all eight

barriers in regards to future employment, and showed positivity in regards to their future job outlook.

Freshmen agreed that salary was an important factor when selecting a job (Table 4.14), and corroborated this, as salary (n = 324) was the highest selected item when asked about factors for job selection. When asked about anticipated future salaries, freshmen responses were relatively close to actual salary ranges reported for the first year after graduation, as stated by Career and Employment Services. However, 30% of freshmen replied that they would make over \$100,001 ten years after graduation. Seven majors of freshmen were low in their estimations of salary the first year post-graduation.

Freshmen college experience was positive. Eight-eight percent of students reported having an extremely positive or positive experience thus far at Kansas State University. Freshmen indicated that they planned on participating in internships and student organizations. Less participation was indicated in judging teams and study abroad programs.

## **Research Objective Two**

Seniors indicated that their overall college experience was positive. Eighty-seven percent reported either extremely positive or positive experience. A majority of seniors had participated in a student organization and an internship. However, only 12% had participated in a study abroad program. Twenty-nine percent of seniors had changed majors, with 46% of those seniors changing in their first semester and 29% changing in their second semester at Kansas State University. Additionally, 77% reported changing majors only once, and no senior reported having changed more than 4 times. Fifty percent (n = 28) of seniors changed to agriculture from majors outside the College of Agriculture, while Animal Science was the second most common

previous major. Reasons given for changing majors involved intrinsic factors, including personal goals, interests, and class enjoyment. Other college factors, such as faculty relationships, scholarship opportunities, and culture of major were less influential.

Seniors indicated that salary was the most important factor when selecting a job, as well as having a job relevant to their interests. Seniors indicated that they were not confident in their knowledge of job availabilities. Salary, location, and relevance to personal interests were the top selected factors in selection of a future job. Location of jobs was important in selection of a job, however, location of future jobs was less influential in selection of a major.

Seniors indicated that they chose their major based upon their interests and personal values. Additionally, family's acceptance of their major, location of jobs, higher education opportunities, and fitting in with students were of lesser influence. Of the seniors who had a relative in the agriculture industry, that relative influenced their choice of major, while projected future earnings after graduation were less influential in their choice of major. Seniors were knowledgeable about realistic expected salaries after graduation. Additionally, data did not suggest a belief that any of the given factors would be barriers to future employment.

### **Research Objective Three**

Both freshmen and seniors reported they preferred to work in a career centered about their major. Both freshmen and senior responses suggested a belief that they would find a good job within their major. However, both freshmen and seniors reported having a low knowledge of job opportunities within their majors.

Freshmen and seniors were both consistently realistic about future earnings one-year post-graduation, however freshmen expected a higher salary 10 years past graduation than

seniors. Additionally, freshmen and seniors did not feel strongly that any listed factors would be barriers to their future employment.

Both freshmen and seniors chose their major based on their interests and personal values. Their family's acceptance of their major had lesser influence in both groups, on their choice of major. However, for those freshmen and senior participants who had a relative working in an agriculture industry, that relative was influential in their major selection. High school agriculture classes and 4-H experience were of lesser values for both freshmen and seniors. High school agriculture class and 4-H experience were the two lowest reported external factors for students, with only 308 freshmen students and 110 senior students reporting participating in either of those two factors.

When asked the top three factors regarding future job selection, both freshmen and seniors selected "Salary," "Relevance to my interests," and "Location" as their most frequently selected factors. Long term opportunities within a field was of lesser influence, as well as opportunity for advancement within a career.

An Independent Samples T-Test found significance between the freshmen and senior samples in the aspirations/expectations and barriers to future employment constructs. However, this is most likely due to the difference in sample size, and does not allow for confident comparison between the two samples.

## **Chapter 5 - Conclusions and Implications**

Agriculture is one of the fastest growing industries in the world, and universities have an opportunity to address the lack of graduates available to fill agriculture jobs in the next few years. In order to understand students at Kansas State University, their choice of major, commitment to major, and their aspirations and expectations of the work force, this research studied those factors in regards to freshmen and exiting seniors within the College of Agriculture at Kansas State University.

### **Research Objective One**

From the findings of this study, it can be concluded that freshmen have a positive outlook on their aspirations after graduation. They believed that their major would prepare them for the work force and that they will have few barriers to employment. They were very confident that Kansas State University will prepare them adequately for a good job with good pay, and to be competitive within the work force. This is consistent with Bean's Student Attrition Model (Figure 1.2) which stated that goal commitment and institutional commitment were factors of persistence within a university.

Freshmen indicated that personal factors, such as fitting in with students and faculty within their major were of lesser influence on their selection of their major than prior experience or opportunities within the major. However, personal factors, such as feeling connected to the major, had a higher influence in commitment to their majors. Both Bean's Student Attrition Model (Figure 1.2) and Tinto's Student Integration model (Figure 1.1) stated that personal factors were influential in a students' persistence within their university. This data supports both models, however the influence of each factor was not equal. Therefore, it can be concluded that factors freshmen use to

select their majors are not necessarily the factors that will retain them within a major. Retention efforts should begin as soon as the student is enrolled in their major. This is supported by the findings that although 65.8% of freshmen can be considered “Committed” to their major, 41.8% have considered changing majors. On that same note, 34.6% of freshmen were classified as “Uncommitted.” For retention purposes, plans are needed for those students who are still uncommitted to their majors.

In regards to changing majors, personal goals and curriculum interests are the top reasons for potentially changing majors. Freshmen orientation classes within their majors might be the only class centered around their major choice and care should be taken to give them an adequate representation of their major through this class. These data might also suggest that some freshmen had not developed interest in their orientation class during the beginning portion of the semester when data were collected. Teachers should take note of this and be aware of freshmen interests and aspirations within their major so as to best communicate information about their major. Initial experiences within the first course in a major have the potential to impact long-term decisions about retention within a major.

Previous research has found that family has played a large part in major selection through providing information and job outlook, and that parental support increased students’ selection of a major (Walmsley, Wilson, & Morgan, 2010). Freshmen indicated that their family’s acceptance of their major has a lesser influence than internal factors such as interest and personal values. However, freshmen first expressed that their families strongly approved of their major, and later indicated that their family’s acceptance of their major is not indicative of their graduating in that major. This lack of consistency makes drawing any conclusion about the role of family and major selection and commitment challenging and reflects the complexity of the family dynamic on



student choice of major. These results are consistent with Bean's Student Attrition Model which states that encouragement from friends and family influence students' academic integration and goal commitment, however our data did not provide enough clarity on the specific factors pertaining to family encouragement to draw solid conclusions among students in the College of Agriculture.

Freshmen considered "Salary" as being the top factor in regard to future job selection. Freshmen also indicated aspirations that their major would allow them to find a good job with good pay, and to maintain a good quality of life. However, seven majors expressed expectations of lower salary than actual salary ranges recorded for recent graduates. Freshmen also stated that they did not feel confident in having knowledge of job availabilities within their major. However, when asked about aspirations of job opportunities, freshmen reported a lower mean for "Salary is an important factor when selecting a job." This dissonance makes drawing clear conclusions difficult. Each question regarding salary touched on a single facet of that factor. This conflict might come as freshmen are not as concerned about the work force or salaries early on in their academic career. Freshmen might also have confidence that their major will allow them to earn an adequate salary, and therefore not feel that it will be a major component when considering their career goals. However, more information is needed about job opportunities within majors and salary opportunities within the career force to better facilitate a factual representation of the work force for freshmen students.

Questions that centered around long-term goals showed less influence than immediate goals. Only 170 freshmen out of 517, rated "Long term opportunities in this field" as being a top 3 factor for future job selection. Additionally, their attitudes toward "Future availability of jobs within this major" ( $M = 3.70$ ) was lower than "Fitting in" ( $M = 4.17$ ) and "Personal Values" ( $M =$

4.06). This supports the conclusion that more information on salary, job opportunities, and long-term options are needed for freshmen. Furthermore, perceptions of how many times the average worker changes jobs throughout their career could also be affecting their long-term career goals. Retention efforts cannot stop once students are in their major. In order to help freshmen find the major that best fits with their interests, information and accurate representations of majors at Kansas State University should be available at all times.

Finally, freshmen expect to be very involved during their time at Kansas State University. Many freshmen expect to participate in an agriculture student organization as well as an internship. However, fewer freshmen see themselves studying abroad or competing on a judging team. As more urban students enter the College of Agriculture, it is important to remember that they might not have the same background as rural students. Freshmen stated that “Prior agriculture experience” was of neutral influence in their major selection, and this was corroborated by the finding that high school agriculture classes and 4-H experience were part of student’s pre-college experiences. Therefore, students might not have knowledge of judging teams and the skills that can develop through participation. Time and effort should be put forth to make students aware of the benefits of these opportunities. Additionally, as agriculture continues to grow into an international discipline, study abroad experiences are extremely advantageous. Freshmen should have more knowledge about international job opportunities, and the importance of world-wide agriculture, in regards to their major.

This data is consistent with Tinto’s Student Integration Model (Figure 1.1) which states student and faculty interaction and integration play a role in persistence decisions. However, these findings found that they had less of an influence than personal factors and career aspirations.

## Research Objective Two

From the findings of this study, it can be concluded that seniors have a positive outlook on their expectations after graduation. They are confident in Kansas State University, and that they will be well prepared for their future careers.

Fifty-nine percent of seniors participated in a student organization within the College of Agriculture, and 56% of seniors completed an internship. However, 17.8% of seniors competed on a judging team and 12% studied abroad. As student demographics change, many urban students might not have a working knowledge of judging team or study abroad benefits. Effort is needed to make students aware of the benefits of these two activities to increase participation.

Fifty percent of seniors who indicated they had changed majors ( $n = 28$ ) stated they changed into the College of Agriculture from another college. When asked the main reasons for changing majors, seniors stated that personal goals and curriculum dissatisfaction were major factors. This is consistent with Tinto's Student Integration Model (Figure 1.1) which finds that individual attributes of a student have influence over their commitment within a university. Additionally, both Bean and Tinto's models (Figure 1.1, Figure 1.2) state that academic integration have influence on student persistence, which is also consistent with this data. In regards to retention, this reflects opportunity for reaching students with more information about the College of Agriculture and what it offers for students and majors. Additionally, most seniors who changed majors indicated doing so within the first two semesters. Their first year was the most influential in establishing their commitment to their major, and the college's retention efforts should be highest during this time of transition.

Seniors stated that "Salary" was the most important factor when selecting a future job. This is varying however, with seniors' perceptions that "their major will allow them to find a

good job with good pay” (M = 3.76). This question was reverse coded for comparison purposes in Table 4.32. These slight variations might come from seniors having the knowledge of their future salary expectations and accepting that range. It might also stem from their self-efficacy that they will select a job with a high salary based on their personal factors or skills. This might also deal with seniors concerns about their ability to find a good job with good pay, and looking closely at salary when selecting a future job is extremely important.

Similarly, seniors indicated that “Long term opportunities in this field” and “Opportunity for advancement” were less influential in future job selections than salary and location, but still important in selection. Additionally, seniors reported that “future availability of good jobs within this major” was less influential on their selection of their major than their interests and personal values. However, this is inconsistent with their responses about their career goals. Sixty percent of seniors stated that they will not be in a different field from their first job after ten years of graduation, and 80.5% responded that they will not be in a different field from their major after ten years. These findings suggest that seniors do consider long term benefits of their major, and have confidence that their major will allow them to enter a career based on their personal interests. However, they need more information about long term opportunities and careers, so as to better facilitate realistic expectations about occupations and salaries.

### **Research Objective Three**

Both freshmen and seniors reported a low knowledge of available job opportunities within their major, however they were confident that their major will allow them to find a good job with good pay. More information early on in their academic career is needed to give a better foundation on job opportunities and expectations within their majors.

Supporting previous research (Malgwi, Howe and Burnaby, 2005), both freshmen and seniors stated that personal factors, such as personal goals and interests were the most influential factors in selection of their major. There was no significant difference between student's hometown population size and choice of major. Therefore, it can be concluded that students from all different backgrounds chose their major based on their personal interests and perceptions of that major. Factual information and upfront knowledge about majors and opportunities can help Kansas State University students select and commit to the best fit major based on their aspirations. Retention efforts should focus on such information, and give students the information to best choose a major upon entering the college. As demographics change, and students enter the College of Agriculture with less prior agriculture knowledge, making major information accessible is increasingly more important.

Both freshmen and senior responses reflected an attitude that there will be few barriers to their future employment. This is beneficial in that students felt confident in their Kansas State University education; however, caution should be taken in order that students do not have an unexpected perception of the career opportunities upon graduation.

When comparing freshmen and seniors and the three construct means using an Independent Samples T-Test, significance was found in aspirations/expectations and barriers constructs. However, this is most likely due to the lack of unity of sample size, and comparison between both samples should be viewed with caution.

Both freshmen and seniors corroborate Tinto's Student Integration Model (Figure 1.1) and Bean's Student Attrition Model (Figure 1.2) in that retention and persistence within a major and a university are multi-faceted. The data shows that personal factors, commitment,

aspirations, and social integration as well as external factors all have some influence on students' persistence.

## **Recommendations for Research**

More research is needed on exiting seniors at Kansas State University. A relatively small sample of seniors was accessible for this study, and to better reflect the population as a whole, more research is needed across all majors. Additionally, to establish significance between the freshmen and senior samples regarding aspirations/expectations and barriers to future employment, more extensive research about personal, work, and major goals is needed.

Additionally, freshmen were surveyed during their first few months of class. To gain a better understanding of first few semesters, freshmen should be researched later on in their academic career after more experience in their majors have occurred. No sophomores or juniors were included in this data set. Research is needed to better understand sophomore and junior perceptions and aspirations within the College of Agriculture at Kansas State University. A longitudinal study that would track freshmen students throughout their entire university experience might better reveal intentions and aspirations during the entire academic career.

More research is needed about the effectiveness of current Kansas State University recruitment efforts. As demographics change, it is important that the College of Agriculture is aware of the changing needs and intentions of students within each major. Additionally, retention efforts cannot stop once a student matriculates into the College of Agriculture. More knowledge is needed on students' early perceptions of their major, as well as through the first few years within the College of Agriculture. More research is needed on students who leave their majors and the factors that tend to influence their departure. Such research would have implications for

both retention efforts as well as recruitment materials that may help students become more efficient in their initial choice of major.

Future research should investigate the changing student demographics within each major in the College of Agriculture at Kansas State University. Previous agriculture experience and knowledge through 4-H and high school agriculture classes need more study to facilitate major choice and realistic aspirations of freshmen entering the university.

Additionally, the variability shown among students in the College of Agriculture at Kansas State University over the factors of salary, family, and location should be revisited to establish a clearer picture of freshmen and senior aspirations and expectations. Freshmen and Seniors both stated that Salary is important, however long-term salary goals seemed to have less of an influence in major selection and future job choice. Additionally, living in their desired location is important in job selection and major choice. However, family approval has less of an influence on major selection and job choice than other factors. This might be because many agriculture students already feel their families support their major. More extensive research is needed on students' family approval and family influence on choice of major and job selection.

Finally, perceptions of long and short term career opportunities warrant more research, so as to establish how students within the College of Agriculture are viewing job opportunities, choice of major, commitment to major, and future expectations within their major. Agriculture students' perceptions of long-term job obtainability relevant to their career interests is still unknown from this research. More research is needed to establish how their long-term goals effect their choice of major and their expectations within the work force so that the college can evaluate the most efficient way to help students select their major.

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## **Appendix A - Freshmen Questionnaire**

# **Freshman Questionnaire**

*Aspirations of incoming freshmen and expectations  
of exiting seniors at Kansas State University*



Fall 2015

**Freshmen Questionnaire**

1. **Directions:** Please circle the number that best describes your attitude towards your current major:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. I plan on graduating with this major	1	2	3	4	5
B. I am committed to this major because it will help me get the job I want	1	2	3	4	5
C. I am not fully interested in the topic of my major	1	2	3	4	5
D. I will graduate with this major because my family accepts this major	1	2	3	4	5
E. I don't feel connected to this major	1	2	3	4	5
F. I cannot make a difference with this major	1	2	3	4	5
G. I see myself working within this major for most of my career	1	2	3	4	5
H. This major will not help me reach my higher education goals	1	2	3	4	5

2. **Directions:** Please circle the number that best describes your attitude towards your future expectations within your major:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. My salary will allow me to maintain a comfortable standard for living in my chosen location after college	1	2	3	4	5
B. My degree will prepare me to take a middle to high level position within my field	1	2	3	4	5
C. I will be prepared to work in management/administration upon graduating college	1	2	3	4	5
D. Salary would not be an important factor in selecting a job	1	2	3	4	5
E. Being located near my family after graduation is important to me	1	2	3	4	5
F. Being in a community larger than my hometown is important in the selection of my job	1	2	3	4	5

G. I must choose a job that will help me maintain a good quality of life	1	2	3	4	5
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3. **Directions:** Please circle the number that best describes the influence each item below played in the selection of your current major:

	Not Influential	Somewhat Influential	Neutral	Influential	Highly Influential
A. Being interested in my major	1	2	3	4	5
B. My family's acceptance of my major	1	2	3	4	5
C. Making a difference in this field of study	1	2	3	4	5
D. Future availability of good jobs within this major	1	2	3	4	5
E. The ability to make a good living within this major	1	2	3	4	5
F. The opportunity for higher education	1	2	3	4	5
G. Working in a field that is consistent with my personal values	1	2	3	4	5
H. Fitting in with students in the major	1	2	3	4	5
I. Desired location of job opportunities	1	2	3	4	5
J. Availability of hands-on experiences	1	2	3	4	5
K. Desired working conditions for jobs in this field	1	2	3	4	5

4. **Directions:** Please circle the number that best describes the extent to which you agree with the following statements during your time at Kansas State University.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. I will have a career-related part time job <u>off campus</u>	1	2	3	4	5
B. I will have a non-career related part-time job <u>off campus</u>	1	2	3	4	5
C. I will have a career-related part-time job <u>on campus</u>	1	2	3	4	5
D. I will have a non-career related part-time job <u>on campus</u>	1	2	3	4	5
E. I will participate in an internship related to my major	1	2	3	4	5
F. I will participate in a study abroad experience	1	2	3	4	5
G. I will be actively involved in at least one student organization in the College of Agriculture	1	2	3	4	5
H. I will participate on a competitive/judging team in the College of Agriculture	1	2	3	4	5
I. I will participate in at least one student organization outside the College of Agriculture	1	2	3	4	5



5. **Directions:** Please circle the number that best describes the extent to which you agree with the following statements regarding your current major:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. I chose this major because of future availability of jobs	1	2	3	4	5
B. I don't see myself fitting in this major well	1	2	3	4	5
C. The faculty in this major played a large part in my choosing this major	1	2	3	4	5
D. The students in this major did not play a role in my selection of this major	1	2	3	4	5
E. My parents or other family members disapprove of this major	1	2	3	4	5
F. My community needs more graduates from this major	1	2	3	4	5
G. The agriculture industry needs more graduates from this major	1	2	3	4	5
H. I chose this major because it aligns with values that are important to me	1	2	3	4	5
I. My prior experience prepared me most for this major	1	2	3	4	5

6. **Directions:** Please circle the number that best describes the level of influence each item below had on your choice of major:

	Not Applicable	Not Influential	Somewhat Influential	Neutral	Influential	Very Influential
A. High School Agriculture classes	0	1	2	3	4	5
B. Relative working in an agriculture industry	0	1	2	3	4	5
C. Previous 4-H experience	0	1	2	3	4	5
D. Availability of future job openings	0	1	2	3	4	5
E. Projected future earnings after graduation	0	1	2	3	4	5

7. **Directions:** Please circle the number that best describes the extent to which you agree with the following statements regarding your future career goals:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. I plan to pursue a career in an agriculture industry relevant to my major	1	2	3	4	5
B. I would prefer to work in a career centered around this field	1	2	3	4	5
C. I am using my major as a stepping block to higher education	1	2	3	4	5
D. I am using my major as a stepping block to more job opportunities	1	2	3	4	5
E. I do not feel confident that my major will allow me to find a job with good pay	1	2	3	4	5
F. I don't think there are adequate opportunities within my major to stand out from my peers	1	2	3	4	5
G. I feel that I have a working knowledge of job availabilities within my major	1	2	3	4	5
H. I feel that there is recognition of my major in my community	1	2	3	4	5
I. This major will allow me to make a difference in the world	1	2	3	4	5
J. This major will allow me to live in my desired location	1	2	3	4	5

8. **Directions:** Please circle the number that most accurately represents your expected annual salary:

	1 year after graduation	5 years after graduation	10 years after graduation
A. \$0-10,000	1	2	3
B. \$10,001-30,000	1	2	3
C. \$30,001-50,000	1	2	3
D. \$50,0001-75,000	1	2	3
E. \$75,001-100,000	1	2	3
F. \$100,001 or greater	1	2	3
G. Not sure	1	2	3

9. **Directions:** Please circle the number that represents the extent to which you believe the following items below will be barriers to your future employment.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. There will not be enough opportunities to speak with employers within my major while in college	1	2	3	4	5
B. I won't be academically prepared within my major	1	2	3	4	5
C. I will not have enough opportunities to speak with contacts within my field during college	1	2	3	4	5
D. The locations of a job(s) will be too far from my family	1	2	3	4	5
E. The job won't be in my field of interest	1	2	3	4	5
F. Positions will not be available in my field	1	2	3	4	5
G. I won't be competitive with other graduates for the positions available	1	2	3	4	5
H. The salary will not allow me to maintain a good way of life	1	2	3	4	5

10. From the following list, please indicate the **three** factors that you feel will be most important to you regarding your selection of a job after college. Indicate the most important factor with a 1, and the second and third most influential with a 2 and 3.

- \_\_\_\_\_ A. Location
- \_\_\_\_\_ B. Salary
- \_\_\_\_\_ C. Opportunity for advancement
- \_\_\_\_\_ D. Prestige of job
- \_\_\_\_\_ E. Community perception of my job
- \_\_\_\_\_ F. Co-Workers
- \_\_\_\_\_ G. Relevance to my interests
- \_\_\_\_\_ H. Long term opportunities in this field
- \_\_\_\_\_ I. Making a difference in this field
- \_\_\_\_\_ J. Other\_\_\_\_\_

\_\_\_\_\_11. Please select the major in which you are currently enrolled at Kansas State University by indicating the letter associated with your major on the following list, and putting that letter in the space provided.

- |   |                                     |
|---|-------------------------------------|
| A. General Agriculture                        | I. Bakery Science and Management    |
| B. Agribusiness                               | J. Feed Science and Management      |
| C. Agricultural Communications and Journalism | K. Food Science and Management      |
| D. Agricultural Education                     | L. Horticulture                     |
| E. Agricultural Economics                     | M. Milling Science and Management   |
| F. Agricultural Technology Management         | N. Park Management and Conservation |
| G. Agronomy                                   | O. Wildlife and Outdoor Enterprise  |
| H. Animal Science and Industry                | P. Other:_____                      |

\_\_\_\_\_12. Have you ever considered changing majors?

A. Yes

B. No

\_\_\_\_\_13. If yes, please indicate into which major you would most likely change into by designating the letter associated with your intended major on the following list, and putting that letter in the space provided. Please indicate other if you would intend to pursue a major outside of the College of Agriculture.

- A. I haven't thought about switching majors
- B. General Agriculture
- C. Agribusiness
- D. Agricultural Communications and Journalism
- E. Agricultural Education
- F. Agriculture Economics
- G. Agricultural Technology Management
- H. Agronomy
- I. Animal Science and Industry

- J. Bakery Science and Management
- K. Feed Science and Management
- L. Food Science and Management
- M. Horticulture
- N. Milling Science and Management
- O. Park Management and Conservation
- P. Wildlife and Outdoor Enterprise Management
- Q. Other: \_\_\_\_\_

14. What would be the main reason(s) for changing from your current major? Please place an **X** next to all that apply.

- \_\_\_\_\_ A. I have not thought about switching majors
- \_\_\_\_\_ B. I chose my major without much thought
- \_\_\_\_\_ C. I am not sure how I ended up in my original major
- \_\_\_\_\_ D. I am not enjoying the classes in which I am enrolled for my major
- \_\_\_\_\_ E. The major does not align with my personal goals
- \_\_\_\_\_ F. The curriculum does not match my career interests
- \_\_\_\_\_ G. Scholarship opportunities are better in other majors
- \_\_\_\_\_ H. I have a personality conflict with one or more faculty in my major
- \_\_\_\_\_ I. I don't fit in with the culture of my major
- \_\_\_\_\_ J. I feel disconnected to the students in my major
- \_\_\_\_\_ K. My family does not support my choice in major
- \_\_\_\_\_ L. Other \_\_\_\_\_

\_\_\_\_\_ 15. Is this your first semester at Kansas State University? Please circle one.

- A. Yes
- B. No

\_\_\_\_\_ 16. Please write the letter in the blank left of the question, that best describes your academic experience thus far at Kansas State University?

- A. Extremely positive
- B. Positive
- C. Neutral
- D. Negative
- E. Extremely negative

17. What is the zipcode of your hometown? \_\_\_\_\_

\_\_\_\_\_ 18. Since graduating high school, how many total college credits have you earned prior to coming to K-State? Please enter 0, or a single whole number.

19. WID: \_\_\_\_\_

## **Appendix B - Senior Questionnaire**

# Senior Questionnaire

*Aspirations of incoming freshmen and expectations  
of exiting seniors at Kansas State University*



Fall 2015



## Senior Questionnaire

1. **Directions:** Please circle the number that best describes your feelings towards your academic college experience:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. I developed confidence in my plan for what should come after graduation	1	2	3	4	5
B. I did not have enough opportunities to gain hands-on knowledge or experience related to my chosen field	1	2	3	4	5
C. I had support from Kansas State University faculty	1	2	3	4	5
D. I wasn't able to make contacts within the industry during my time at Kansas State University	1	2	3	4	5
E. Communication skills were stressed in my curriculum	1	2	3	4	5
F. I did not have many chances to learn and use leadership/managerial skills	1	2	3	4	5
G. My curriculum was not well rounded, and poorly prepared me for my career	1	2	3	4	5
H. My prior agriculture experience influenced my enjoyment of my major	1	2	3	4	5
I. I had multiple opportunities to stand out compared to my peers	1	2	3	4	5
J. My major was essential in helping me find a job	1	2	3	4	5
K. I am academically prepared for the work force	1	2	3	4	5
L. There was not enough class discussion about career opportunities	1	2	3	4	5
M. There was ample discussion about internship opportunities	1	2	3	4	5

2. **Directions:** Please circle the number that best describes your attitude towards your future expectations within your major:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
A. My salary will allow me to maintain a comfortable standard of living in my chosen location after college	1	2	3	4	5
B. My degree has prepared me to take a middle to high level position within my field	1	2	3	4	5
C. I am prepared to work in management/administration upon graduation	1	2	3	4	5
D. Salary would not be an important factor in selecting a job	1	2	3	4	5
E. Being located near my family is important to me	1	2	3	4	5
F. Being in a community larger than my hometown is important to me	1	2	3	4	5
G. I must choose a job that will help me maintain a good quality of life	1	2	3	4	5

3. **Directions:** Please circle the number that best describes your feelings towards your career goals:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
A. I plan to pursue a career in an agriculture industry relevant to my major	1	2	3	4	5
B. I would prefer to work in a career centered around this field	1	2	3	4	5
C. I am using my major as a stepping block to higher education	1	2	3	4	5
D. I am using my major as a stepping block to more job opportunities	1	2	3	4	5
E. I do not feel confident that my major will allow me to find a job with good pay	1	2	3	4	5
F. I don't think there are adequate opportunities within my major to stand out from my peers	1	2	3	4	5
G. I feel that I have a working knowledge of job availabilities within my major	1	2	3	4	5
H. I feel that there is recognition of my major in my community	1	2	3	4	5
I. This major will allow me to make a difference in the world	1	2	3	4	5
J. This major will allow me to live in my desired location	1	2	3	4	5

4. **Directions:** Please circle the number that best describes the level of influence each item below had on your choice of major

	<b>Not Applicable</b>	<b>Not Influential</b>	<b>Somewhat Influential</b>	<b>Neutral</b>	<b>Influential</b>	<b>Very Influential</b>
A. High School Agriculture classes	0	1	2	3	4	5
B. Relative working in an agriculture industry	0	1	2	3	4	5
C. Previous 4-H experience	0	1	2	3	4	5
D. Availability of future job openings	0	1	2	3	4	5
E. Projected future earnings after graduation	0	1	2	3	4	5

5. **Directions:** Please circle the number that that best describes the influence each item below played in the selection of your current major:

	<b>Not Influential</b>	<b>Somewhat Influential</b>	<b>Neutral</b>	<b>Influential</b>	<b>Highly Influential</b>
A. Being interested in my major	1	2	3	4	5
B. My family's acceptance of my major	1	2	3	4	5
C. Making a difference in this field of study	1	2	3	4	5
D. Future availability of good jobs within this major	1	2	3	4	5
E. The ability to make a good living within this major	1	2	3	4	5
F. The opportunity for higher education	1	2	3	4	5
G. Working in a field that is consistent with my personal values	1	2	3	4	5
H. Fitting in with students in the major	1	2	3	4	5
I. Desired location of job opportunities	1	2	3	4	5
J. Availability of hands on experiences	1	2	3	4	5
K. Desired working conditions for jobs in this field	1	2	3	4	5

6. **Directions:** Please circle the number that best describes your participation at Kansas State University:

	Disagree	Agree
A. I had career-related part time job off campus	1	2
B. I had a non-career related part-time job off campus	1	2
C. I had a career-related part-time job on campus	1	2
D. I had a non-career related part-time job on campus	1	2
E. I participated in an internship related to my major	1	2
F. I studied abroad for my major	1	2
G. I was actively involved in at least 1 student organization in the College of Agriculture	1	2
H. I participated on a competitive/judging team in the College of Agriculture	1	2
I. I participated in at least 1 student organization outside the College of Agriculture	1	2

7. **Directions:** Please circle the number that most accurately represents your expected annual income:

	1 year after graduation	5 years after graduation	10 years after graduation
A. \$0-10,000	1	2	3
B. \$10,001-30,000	1	2	3
C. \$30,001-50,000	1	2	3
D. \$50,0001-75,000	1	2	3
E. \$75,001-100,000	1	2	3
F. \$100,001 or greater	1	2	3
G. Not sure	1	2	3

8. **Directions:** Please circle the number that represents the extent to which you believe the following items below will be barriers to your future employment.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. There were not enough opportunities to speak with employers within my major while in college	1	2	3	4	5
B. I was not academically prepared within my major	1	2	3	4	5
C. I did not have enough opportunities to speak with contacts within my field during college	1	2	3	4	5
D. The locations of a job(s) will be too far from my family	1	2	3	4	5
E. The job won't be in my field of interest	1	2	3	4	5
F. Positions will not be available in my field	1	2	3	4	5
G. I won't be competitive with other graduates for the positions available	1	2	3	4	5
H. The salary will not allow me to maintain a good quality of life	1	2	3	4	5

9. From the following list, please indicate the **three** factors that you feel will be most important to you regarding your selection of a job after college. Indicate the most important factor with a 1, and the second and third most influential with a 2 and 3.

- |   |  |
|---|--|
| _____ A. Location                       | _____ F. Co-Workers                            |
| _____ B. Salary                         | _____ G. Relevance to my interests             |
| _____ C. Opportunity for advancement    | _____ H. Long term opportunities in this field |
| _____ D. Prestige of job                | _____ I. Making a difference in this field     |
| _____ E. Community perception of my job | _____ J. Other_____                            |

\_\_\_\_\_10. Which of the following best describes the employment status you anticipate following graduation? Please write the letter on the space left of the question.

- a. Seeking employment
- b. Employed part time
- c. Employed full time
- d. Continuing education
- e. Military Service
- f. Unemployed by choice
- g. Not Sure

**If you chose A, B, C, or D please go to question 11, if you chose E, F, or G, please go to question 13.**

\_\_\_\_\_11. What field best fits the job opportunity you anticipate following graduation? Please write the letter on the space left of the question.

- |   |                                     |
|---|-------------------------------------|
| a. General Agriculture                        | i. Bakery Science and Management    |
| b. Agribusiness                               | j. Feed Science and Management      |
| c. Agricultural Communications and Journalism | k. Food Science and Management      |
| d. Agricultural Education                     | l. Horticulture                     |
| e. Agriculture Economics                      | m. Milling Science and Management   |
| f. Agricultural Technology Management         | n. Park Management and Conservation |
| g. Agronomy                                   | o. Wildlife and Outdoor Enterprise  |
| h. Animal Science                             | p. Other:_____                      |

**Please proceed to question #12**



\_\_\_\_\_12. How relevant is your major to your anticipated first position out of college? Please circle one and write the letter on the space left of the question.

- a. Extremely relevant
- b. Relevant
- c. Neutral
- d. Somewhat relevant
- e. Not Relevant

13. **Directions:** Please circle the number that most accurately describes your attitude towards your career goals 1 year, 5 years, and 10 years after graduation.

	Not Applicable	1 year after graduation	5 years after graduation	10 years after graduation
A. I will move up in my company of choice	0	1	2	3
B. I will start my own business	0	1	2	3
C. I will be in management/administration	0	1	2	3
D. I will still be in my first position out of college	0	1	2	3
E. I will be in a completely different field from my first job	0	1	2	3
F. I will be in a completely different field from my major	0	1	2	3
G. I will continue education within my major	0	1	2	3
H. I will continue education without my major	0	1	2	3
I. I will be unemployed by choice	0	1	2	3
J. I will be serving in the armed forces	0	1	2	3

\_\_\_\_\_14. Please select the major in which you are currently enrolled at Kansas State University by locating the letter associated with your major on the following list, and putting that letter in the space provided.

- |   |   |
|---|---|
| a. General Agriculture                        | j. Feed Science and Management                    |
| b. Agribusiness                               | k. Food Science and Management                    |
| c. Agricultural Communications and Journalism | l. Horticulture                                   |
| d. Agricultural Education                     | m. Milling Science and Management                 |
| e. Agricultural Economics                     | n. Park Management and Conservation               |
| f. Agricultural Technology Management         | o. Wildlife and Outdoor Enterprise and Management |
| g. Agronomy                                   | p. Other: _____                                   |
| h. Animal Science and Industry                |   |
| i. Bakery Science and Management              |   |

15. Since enrolling at Kansas State University, have you ever changed majors? Please circle one.

- a. Yes (please go to question #16)      B. No (please go to question #20)

16. If yes, what were the main reason for changing? Circle all that apply. Please place an **X** in the blank next to the question.

- A. I chose my major without much thought
- B. I am not sure how I ended up in my original major
- C. I am not enjoying the classes in which I am enrolled in for my major
- D. The major does not align with my personal goals
- E. The curriculum does not match my career interests
- F. Scholarship opportunities are better in other majors
- G. I have a personality conflict with one or more faculty in my major
- H. I don't fit in with the culture of my major
- I. I feel disconnected to the students in my major
- H. My family does not support my choice in major
- I. Other \_\_\_\_\_

\_\_\_\_\_17. What was your major during your first semester Kansas State University? If you were in a major outside of the College of Agriculture, please specify on the "Other" line. Please write your selection on the space left of the question.

- |   |                                     |
|---|-------------------------------------|
| A. General Agriculture                        | I. Bakery Science and Management    |
| B. Agribusiness                               | J. Feed Science and Management      |
| C. Agricultural Communications and Journalism | K. Food Science and Management      |
| D. Agricultural Education                     | L. Horticulture                     |
| E. Agricultural Economics                     | M. Milling Science and Management   |
| F. Agricultural Technology Management         | N. Park Management and Conservation |
| G. Agronomy                                   | O. Wildlife and Outdoor Enterprise  |
| H. Animal Science and Industry                | P. Other: _____                     |

18. How many times have you changed majors? Please circle one.

1 time          2 times          3 times          4 times          5 or more times

19. How many semesters were you in your original major before changing? Please circle one.

1          2          3          4          5          6          7          8          9          10 or more

20. How would you rate your academic college experience at Kansas State University?

- A. Extremely positive
- B. Positive
- C. Neutral
- D. Negative
- E. Extremely Negative

\_\_\_\_\_ 21. When you began your first semester at Kansas State University, how many college credits had you earned? Please enter a number 0 or a single whole number in the space left of the question.

22. Which option best describes you?

- A. I started college at Kansas State University in the College of Agriculture immediately after high school
- B. I transferred to Kansas State University in the College of Agriculture from a 2 year institution or technical college
- C. I transferred to Kansas State University from another 4 year university
- D. I transferred into the College of Agriculture from another College at Kansas State University
- E. Other: \_\_\_\_\_

23. What is the zipcode of your hometown? \_\_\_\_\_

24. WID: \_\_\_\_\_