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PERCEPTIONS AND ATTITUDES OF RECRUITMENT EFFORTS FOR UNDERGRADUATE ENROLLMENT IN SOUTHERN ILLINOIS UNIVERSITY COLLEGE OF AGRICULTURAL SCIENCES

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By

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AN ABSTRACT OF THE THESIS OF

LINDSAY J. FRANCIS, for the Master of Science degree in Agricultural Systems, presented on March 31st, 2017, at Southern Illinois University Carbondale.

TITLE: PERCEPTIONS AND ATTITUDES OF RECRUITMENT EFFORTS FOR UNDERGRADUATE ENROLLMENT IN SOUTHERN ILLINOIS UNIVERSITY COLLEGE OF AGRICULTURAL SCIENCES. MAJOR PROFESSOR: Dr. Seburn Pense

The purpose of this study was to evaluate the efficiency of and improve the recruitment efforts of The College of Agricultural Sciences at Southern Illinois University Carbondale. This study surveyed a group of freshmen and first-year transfer students enrolled in the College of Agricultural Sciences (COAS) at Southern Illinois University Carbondale (SIUC) in the fall of 2016 on why they chose to attend, and what factors were considered when making their choice. 184 students were sent surveys and a total of 62 students completed the survey, giving a response rate of 34%. The instrument contained a 21 item questionnaire, with responses of both open and close ended items. The survey found that the reputation of the COAS, as well as the faculty and staff's dedication of welcoming and assisting (potential students) were identified as the most influential factors in a student choosing to attend the COAS. It was found that parents, followed closely by high school agriculture teachers, held the greatest influence in prospective students' college choice process. Other results show why the students selected and enrolled were due to the affordability of the COAS, scholarships, and the specific programs that were offered. Noting these results, the COAS would be able to continue to increase enrollment numbers.

DEDICATION

I dedicate this research to the College of Agricultural Sciences in the hopes that it will complement the recruitment efforts of our faculty, staff, and students. I also dedicate this research to Peter D. Dirks, Coordinator of Recruitment & Retention, friend and mentor.

ACKNOWLEDGEMENTS

I would like to formally thank my Graduate Committee, Dr. Seburn Pense, Dr. Chris Clemons, Dr. Jon Schoonover, and Mr. Peter Dirks for their support, time, and encouragement. The hours of time my committee has put into helping me complete this project is immeasurable; I cannot thank them enough. I would like to express my gratitude to my supervisors, Dr. Seburn Pense, Dr. Chris Clemons, and Mr. Peter Dirks, whose expertise, understanding, and patience, added considerably to my graduate experience. I appreciate their vast knowledge and skill in many areas, but most importantly their drive to educate myself and their students on how to apply these skills to educational projects and real-world experiences. Without Mr. Dirks' encouragement all throughout my time at SIUC, I would not have even considered to continue my education into graduate school. I would like to thank Dr. Jon Schoonover for taking time out of his busy schedule to be a part of my committee. I would also like to thank Dean Latour and the COAS for allowing me to work with the Agbassador recruiting program throughout my time at SIUC, and for this wonderful opportunity of a graduate assistantship & funding to complete my Master's degree. I would also like to thank Susan Graham, Charlotte Sarao, Marianne Shields, and Rhiannon Storm for their encouragement and assistance. I would also like to thank the SIUC instructors and lecturers who invited me into their classrooms to talk about my research, the Agbassador Team, and the COAS students who assisted in the survey.

A special thanks to my high school agriculture teacher and FFA advisor, Mr. Matt Belusko, and Mrs. Valerie Belusko, for encouraging me to move out of my comfort zone all through high school, and at times, serving as a second set of parents to me. Without their encouragement I may not have followed my path into agriculture education. I want to thank my

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CHAPTER I

INTRODUCTION

Excellent recruitment and retention of students has long been a factor in the success of institutions of higher education. A potential student's interest is the greatest opportunity for an educational institution to showcase all that they offer. This is where they can show how they can create opportunities for success, from the student's acceptance letter, to their graduation, and beyond, for the interested student. Before the student's interest is sparked, the student needs to be aware these colleges, universities, and their opportunities even exist. This is where recruitment comes into play. Recruitment can be considered something as simple as a billboard along the interstate, a colorful flyer in the mail, a social media page, to a student recruiter. The forms of recruitment channels goes on. Once the student is attending the educational institution, it is imperative that the student has the resources and advisement to reach their personal academic goals. This is where excellent retention is needed for the student's success, as well as the educational institution's success.

In today's economy, universities have financial obstacles to overcome, and for many, a large obstacle is declining enrollment (Offenstein & Shulock, 2010). When an institution can see what recruitment and retention strategies are working, as well as what strategies can be improved, declining enrollment is one less worry with which they have to deal. Today, institutions of higher education are facing reductions in, and at times, a complete lack of state funding. Now, more than ever, it is essential that an institution uses its resources wisely, and utilizes the best recruitment channels in order to continue increasing enrollment and providing an excellent institution for its students, faculty and staff.

Research Objectives

The primary objective of this exploratory study was to evaluate the efficiency of and improve the recruitment efforts of Southern Illinois University Carbondale's College of Agricultural Sciences (COAS). Another goal was to identify the factors that current College of Agricultural Sciences (COAS) students considered in their choice of Southern Illinois University Carbondale (SIUC). Within these findings, another goal was to identify the channels of communication the students used to find out about the COAS. This objective was to assist the COAS to be able to view which recruitment strategies held the best return on their investment of time, money, and resources within the college. Certain factors are out of their hands, but the COAS had successfully recruited and retained students for many years. The COAS celebrated their 60th Anniversary in the fall of 2015 (Hahn, 2015). This study was another step to help ensure Southern Illinois University Carbondale's College of Agricultural Sciences would show students all that the university had to offer, and in turn ensure students selected the right university for their needs while preparing for their future careers. This could assist the COAS in being the best it could be for its students, faculty, and staff.

The research objectives guiding this study were:

1. Where is Southern Illinois University COAS receiving the most return on their investment of time, money, and resources-in terms of their recruitment strategies?
2. What factors are students considering in their selection of Southern Illinois University College of Agricultural Sciences (COAS)?
3. How can the results of this study be applied to the recruitment efforts at the College of Agricultural Sciences?

Theoretical Framework

The theoretical framework applied to this study consisted of two separate models. The first and foremost was Chapman's Model of Student College Choice (1981). Chapman's model represented two groups of factors that affect a student's college choice. One group was student characteristics, which consisted of "socioeconomic status, aptitude, levels of educational aspirations, and high school performance; and external influences, which included significant persons, which were listed as friends, parents, and high school personnel; fixed college characteristics, such as cost (financial aid), location, availability of programs; and university communication with students, which consisted of campus visits, written information, and admissions/recruiting" (Baker, Settle, Chiarelli, & Irani, 2013, p. 56; Chapman, 1981, p. 490). Student characteristics affects the college's choice of students, while the external influences affect the student's choice of colleges. Together, the student characteristics and external influences affect a student's general expectations of college life (Chapman, 1981). The current study focused on evaluating the efficiency of and the improvement of recruitment efforts of Southern Illinois University Carbondale College of Agricultural Sciences, as mentioned in the introduction, yet Chapman's model of factors of student characteristics and external influences all played into a student's selection of college or university. External influences, such as an institution's fixed characteristics and an institution's efforts to communicate with students is an integral part of an institution's recruitment tactics.

The model of Hodges and Karpova's (2010) work on the influences of selecting a college major also provided a framework for this study. In Hodges and Karpova's 2010 model, they showed that there are three foundational components students consider when choosing a major.

These include interpersonal factors, personal characteristics, and environmental factors. Interpersonal factors include parents, friends/peers, high school teachers, and college instructors. Personal characteristics include objective factors, such as age, gender, ethnicity, and socioeconomic status; and subjective factors such as interest and aptitude in a subject, personality traits and work values. Environmental factors include those which are college related, which involves class size, quality and reputation of school/program; and occupation/industry related, which involves employment opportunities, earning potential, potential careers, and industry dynamics. While their study focused on college major selection for the fashion industry, it did have implications for agriculture, as well as selecting an educational institution. Interpersonal, personal, and environmental factors all play into a student's selection of a college or university, connecting with the recruitment tactics of an institution, as well as the selection of their major (Hodges & Karpova, 2010; Stair, Danjean, Blackburn, & Bunch, 2016).

With two theoretical models from similar studies, the proposed theoretical framework created for this study was on a student's choice of an educational institution. It put together several factors that affect a student's choice. The factors listed include internal factors such as the student's personal goals, student's personal preference/impressions, and the student's education level (high school or community college). The framework also included external factors, such as scholarship availability, extracurricular activity involvement (FFA), and influences (family, friends, and teachers). The educational institution's factors are shown in the framework as well, including the location (from student's home), the cost/price, and programs (activities, offerings); as well as the visibility of the institution (recruitment). See Figure 1.1.

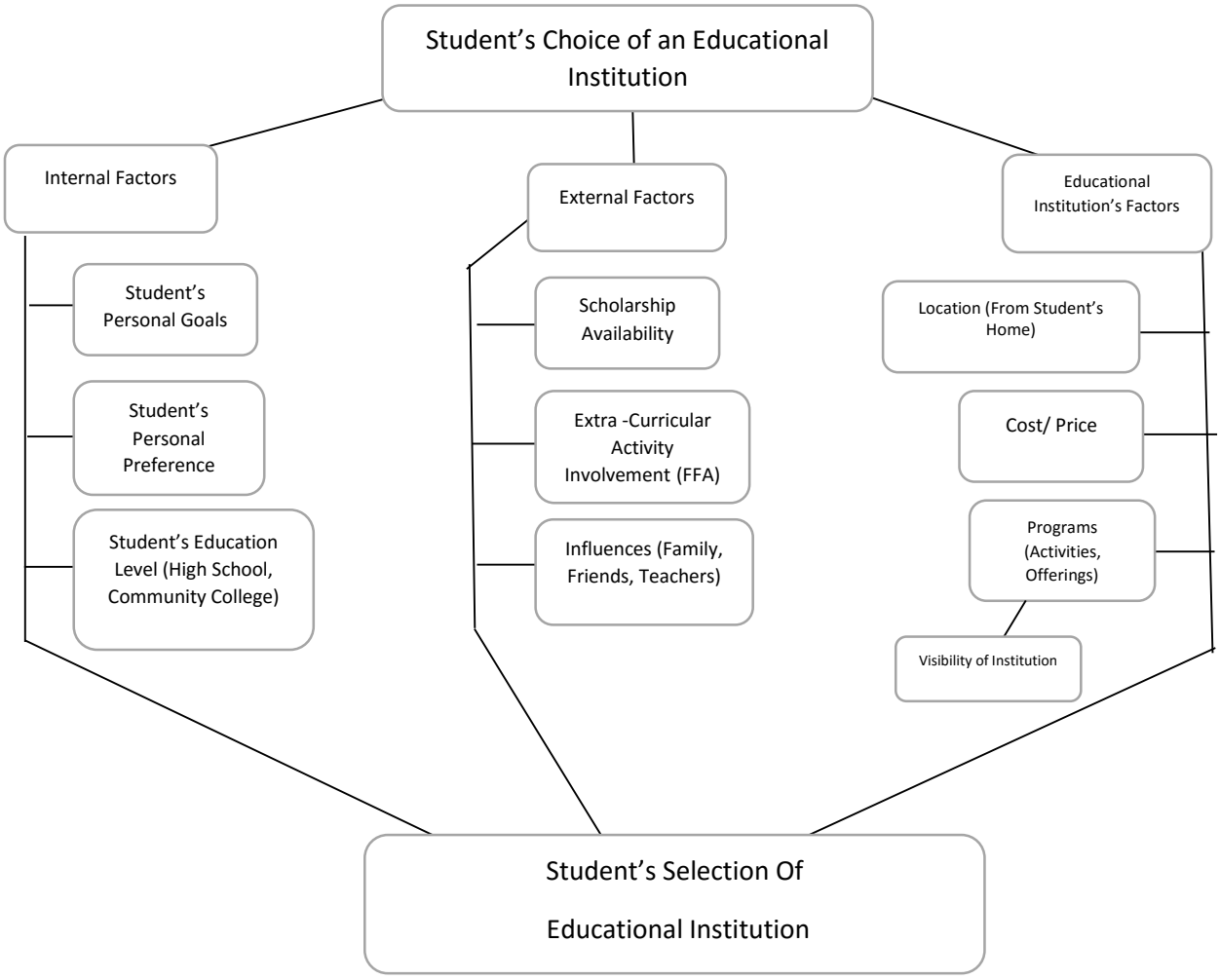

Figure 1.1 Student's Choice of Educational Institution (Chapman, 1981; Hodges and Karpova, 2010; Francis, 2016).

Definition of Terms

SIUC- Southern Illinois University Carbondale

COAS- College of Agricultural Sciences

Agbassador- Student Ambassador for the College of Agricultural Sciences, part of the recruiting team of students that visit schools and help be the face of the College (SIU, 2015; Martin, 2008).

The National FFA Organization, a.k.a FFA- An "intra curricular student organization for those interested in agriculture and leadership. This organization provides leadership, learning, and career development opportunities" for high school students (What is FFA, 2015).

Freshman: A student that arrived at SIUC with twenty-six or less credit hours, many initially after high school (SIU, 2015).

Transfer Junior: A student that transferred in to SIU with twenty-six or more transferable credits from community college or other university upon arrival to SIU (SIU, 2015).

CHAPTER II

REVIEW OF THE LITERATURE

A review of the relevant literature has identified several themes that are influential in a college student's selection in a College of Agricultural Sciences. Particular recruitment strategy themes are seen in multiple studies. Several themes have emerged, and have been grouped into principle factors, and these principle factors guided the selection of questions included in the study's survey. These principal factors include: the importance of student recruitment in Colleges of Agriculture (Sciences) (Baker, Settle, Chiarelli, & Irani, 2013; Calvin, & Pense, 2013; Dyer, Breja, & Wittler, 2002; Herren, Cartmell II, & Robertson, 2011; Henry, Talbert, & Morris, 2014; Irlbeck, Adams, Akers, Burris, & Jones, 2014; Martin, 2008; Maringe, 2006; Thieman, Rosch, & Suarez, 2016; Torres & Wildman, 2001; Osborne & Dyer, 2000; Rayfield, Murphrey, Skaggs, & Shafer, 2013; Rhoades, Irani, Telg, & Myers, 2008; Stair, Danjean, Blackburn, & Bunch, 2016; Washburn, Garton, & Vaughn, 2002; Wildman & Torres, 2002); the importance of student's personal academic goals and success (Becker, 1992; Chapman, 1981; Goecker, Smith, Fernandez, Ali, & Goetz, 2015; Herren, Cartmell II, & Robertson, 2011; Hilmer, 1998; Hodges, & Karpova, 2010; Irlbeck, Adams, Akers, Burris, & Jones, 2014; Malveaux, 2003; Moore, & Shulock, 2009; Nauta, 2007; Offenstein, & Shulock, 2010); the importance of the agriculture industry (Bowen & Rumberger, 2002; Calvin & Pense, 2013; Goecker, Smith, Fernandez, Ali, & Goetz, 2015; Herren, Cartmell II, & Robertson, 2011); the impact of Agricultural Education and the National FFA Organization in high schools (Bell, & Fritz, 1992; Bowen & Rumberger, 2002; Calvin & Pense, 2013; Herren, Cartmell II, & Robertson, 2011; Henry, Talbert, & Morris, 2014; Osborne & Dyer, 2000; Phelps, Henry, &

Bird, 2012; Phipps, Osborne, Dyer, & Ball, 2008). Several studies agree that parents or guardians are the most influential person in a student's college choice and is noted as a principle factor in this study, (Osborne & Dyer, 2000; Rayfield, Murphrey, Skaggs, & Shafer, 2013; Chapman 1981; Thieman, Rosch, & Suarez, 2016; Faulkner, Baggett, Bowen, & Bowen, 2009; Marx, Simonsen, & Kitchel, 2014; Rocca & Washburn, 2005; Wahl & Blackhurst, 2000; Barkley & Parrish, 2005; Herren, Cartmell, & Robertson, 2011; Jackman & Smick-Attisano, 1992; Chapman, 1981; Reis and Kahler, 1997; Donnermeyer & Kreps, 1994); as well as the importance of an affordable education (Becker, 1992; Gohn & Albin, 2006; Malveaux, 2003, Kohn, Mansk, & Mundel, 1976; Ishitani, 2006; Paulsen, 1998; Hochstein & Butler, 1983; Hilmer, 1998).

While some themes and findings can be applied to any recruitment situation or instance, others are different and cannot be generalized to every educational institution. Colleges of Agriculture (COA's) and Colleges of Agriculture Sciences (COAS) share several similar recruitment strategies and needs, yet each individual College and University has their own unique needs, strengths and weaknesses based on their location, enrollment numbers, and the challenges a given year brings. This study on SIUC COAS shows some similarities to the previous studies.

Importance of Student Recruitment and Retention

Recruitment and retention of students is not only important for universities and their students, but for our nation's economy as well. Recruitment and retention "is an urgent national priority for ensuring long term economic growth and prosperity" (Offenstein & Shulock, 2010, p. 1). It is important for universities to see where their efforts of time, money and resources are best spent. At a recruiting event for high school agriculture students, within conversations the

author asked students what they would want to see in a college or university. Most of the answers included an “affordable tuition”, “good classes”, “helpful and qualified teachers”, and “fun activities for my free time”. The College of Agriculture Sciences fits that bill with what they can offer for most agriculture students.

Recruitment of students in higher education is a form of marketing. Litten (Litten, 1982, p. 385), defines marketing as “a frame of mind in which questions are asked about the optimum relationship between an organism and its environment, or parts of its environment, and action is taken that is informed by answers to these questions”. When looking at recruitment from a marketing standpoint, it is imperative for a higher education institution to research and know its own characteristics and image, and fit their characteristics to the characteristics that potential students are searching for (Williams, 1986; Smith & Cavusgil, 1984; Kotler & Murphy, 1981; Litten, 1980; Martin, 1996). A good fit will ultimately result in students who are satisfied with their institution, and in time, reach graduation. Prospective students and their decision process in selecting a university has caught the interest of researchers for a couple of decades. (Martin, 1996; Le Claire, 1988; Elsworth, Day, Hurworth, & Andrews, 1981). There have been several studies in individual Colleges of Agriculture to see what recruits and retains students to the colleges.

“The need to recruit and educate high quality students with degrees from colleges of agriculture has been well established” (Robinson, Garton, & Washburn, 2007, p. 27). Yet, the factors that prospective students consider in selecting a college or university were not as well established. Factors that influence students in their selection of higher education are continually evolving (Martin, 1996; Boatwright, Ching & Parr, 1992).

Ensuring an educational institution discovers and includes these factors in their recruitment strategies provided another reason to conduct this type of study. Colleges of agriculture have the duty of recruiting, retaining, and educating students to meet the employment demands of the agriculture industry (Ball, Garton and Dyer, 2001). In order to prepare these students for the agriculture industry, colleges of agriculture must not only provide excellent programs, but make the tuition affordable, and, most importantly, recruit and retain students in these programs.

What steps can colleges of agriculture follow to ensure that students will continue to enroll in their degree programs? Due to the rising costs of a college education and declining enrollments in colleges of agriculture, effective recruitment is more critical today than ever before. Declining enrollment is "troubling given that colleges of agriculture spend a large amount of time, energy and financial resources on their efforts to recruit students" (Washburn, Garton, & Vaughn, 2002; Baker, Settle, Chiarelli, & Irani, 2013, p. 54). As tuition continues to increase, students will seek alternatives. As of 2014, according to a U.S. Department of Education report, the state of Illinois had lost 16,461 students to out of state educational institutions. This was many more than the 2,117 out-of-state students who enrolled in Illinois educational institutions. The number of students lost due to the Illinois' state budget impasse and the state's university's cutbacks were unknown at this time. Despite such staggering numbers, enrollment in educational institutions of agriculture remained steady, and many, like Southern Illinois University Carbondale's College of Agricultural Sciences, continued to increase their numbers of students (Shipman, 2017; U.S. Department of Education, 2014).

Therefore, colleges of agriculture needed to identify effective strategies to recruit

students. Cole and Fanno (Cole & Fanno, 1999, p. 31) stated that, “Recruitment efforts should give students accurate information about majors, especially in the sciences to be successful in the major. Too frequently, recruitment efforts do not provide adequate information about the majors or the preparation necessary to be successful in the majors”. “The perception of benefits gained from a program and the image of the organization can affect student participation” (Phelps, Henry, Bird, 2012, p. 73; Croom & Flowers, 2001). In Maringe’s 2006 study, it was noticed even then, 10 years before this study, how the competitiveness in the environment of higher education had increased. Institutions are, in a sense, competing for students in the recruitment markets. Today, we are in an ever-changing undergraduate recruitment market, where institutions must evaluate their programs. Continual reassessment of the recruitment strategies deemed most effective in attracting students onto campus and into degree programs is essential (Robinson, Garton, & Washburn, 2007). A study by Baker, Settle, Chiarelli, & Irani in 2013 was held to determine how to reach and attract potential students to majors, and eventually careers, in programs of agriculture more efficiently and effectively. Their results showed that students have a “preference for academic programs that have high visibility (i.e., most people know about the program)” (Baker et. al, 2013, p. 55). The study concluded the largest barrier for enrolling in the program was a lack of awareness about that field of study and its related careers (Baker, Settle, Chiarelli, & Irani, 2013).

D.W. Chapman’s 1981 model focused on the factors that influence first year college students to select an educational institution, as well as the student’s own characteristics. Chapman identified a student’s characteristics, such as aspirations and prior educational performance, to influence a student’s college choice. Significant persons in a student's life, such

as parents, role models, teachers, and friends, were noted as a strong influence. Chapman also noted that factors such as the cost of attending an institution, the available financial aid, the location, particular courses offered, and the communication efforts all played a role in students' college choice (Chapman, 1981). In Dyer, Breja, & Wittler's 2002 study *Predictors of Student Retention in Colleges of Agriculture*, they discovered that "Where the mission was once the education of students in agriculture, the emerging trend may be to educate students about agriculture" (Dyer, Breja, & Wittler, 2002, p.11). Their research model focused on the need to study the factors which influence a student's selection and pursuit of a field of study and corresponding career choice. This focus came about knowing the nationwide need for recruiting and retaining quality students to enter the agricultural workforce after graduation (Dyer, Breja, & Wittler, 2002).

The factors that influence students in their selection of higher education are continually evolving (DesJardins et al, 1999; Martin, 1996; Boatwright, Ching & Parr, 1992). Factors such as an institution's cost, financial aid, courses, career exploration and advancement opportunities offered, as well as parental, teacher, and role model influence, are all suggested by studies to be considered in recruitment strategies. These studies assisted in establishing models and ideas to follow for this particular study.

Importance of Student's Academic Goals

It is important for a university or college to know what they are doing correctly to recruit and keep their students at their institution, as well for their students to attain their own academic goals (Nandeshwar, Menzies, & Nelson, 2011). The recruitment and retention of a student to a college or university are major steps in a student's path to graduation. Further study

of recruitment shows that colleges and universities measure their success not only by graduation of students, but by assisting students to accomplish academic goals and milestones (Offenstein & Shulock, 2010). When notice is taken on the student's academic goals to reach on their way to graduation, it is easier for an institution to assist the student to reach their goals along the way. While it is important to graduate students, it's essential to help students reach goals and prepare them for their future careers and the real world. Retention efforts of attentive advisement, career services, and programs to assist students to achieve success are beneficial to the students, the college or university as a whole, as well as the economy, in the long run. Colleges of Agriculture have a role in recruiting, retaining, and developing a "sufficient scientific and professional workforce that addresses the challenges of the 21st century" (Doerfert, 2011, p. 9; National Research Council, 2009; Stair, Danjean, Blackburn, & Bunch, 2016). With this great responsibility, it is helpful to note that specific department and college factors have influenced students' choices of selecting a College of Agriculture. "Friendliness of the departmental faculty and the overall atmosphere in the College of Agriculture" are two factors that have been shown in studies to increase the chances of a potential student selecting a specific College of Agriculture (COA) (Barkley & Parrish, 2005, p. 5; Wildman & Torres, 2002). On the same hand, poor communication from the departments within the College of Agriculture can steer students away and eliminate that COA from their choices (Baker, Irani, Abrams, & Telg, 2010).

Taking note of the differences of COA students - knowing that a one size fits all approach cannot be utilized- can assist a COA in providing the best opportunities and learning environment for their students. One difference that has been noticed in relevant literature is the differences of first year, original freshman students, and first year transfer from community

college students. Many factors will provide differences in these two student categories, and one common difference is the timing of "transfer shock" in students. While first year freshman can experience the changes and adaptations to university life their very first semester, at a younger age, community college transfer students may experience this "transfer shock" during their third year of schooling (or later), their first year at a four-year institution. The term 'transfer shock" was coined by John Hills in 1965, and he described this as the distress a new student (that has completed at least a semester at a community college) could feel when "attempting to make a connection or acclimate to their new institution's culture" (Hills, 1965, p. 1). A consequence of this may result in a decrease in grade point average, which can vary due to the "unexpected rigor of the coursework" to the difficulty of adjusting to the new campus culture (Hills, 1965, p. 1, 2; Cejda, 1997). This is one of the many reasons that a college must provide attentive advisement, career services, and programs to assist students to achieve success.

"High rates of placement for graduates following completion of a degree program heavily depends on the student's right match with a degree program that will provide them the opportunity for academic success and an avenue to accomplish their professional career goals" (Thieman, Rosch, & Suarez, 2016, p. 30; Nauta, 2007). The COAS provides an agriculture career fair each fall for COAS students to network with over 40 prospective agricultural companies, as well as information and connections with available internships and full time jobs in the agriculture industry.

Importance of the Agriculture Industry

"Agriculture by nature is a vast and complex industry. It encompasses professions ranging from production to law. Today, this industry deals with technological developments,

consumer interest, governmental policies, and the threat to U.S. food systems increasing" (Herren, Cartmell II, & Robertson, 2011, p. 54). This industry will see more employment opportunities for agriculture, food, renewable natural resources, and environment graduates (Herren, Cartmell II, & Robertson, 2011; Goecker, Smith, Fernandez, Ali, & Goetz-Theller, 2015).

The importance of educating students that the agriculture industry is so much more than "cows, plows, and sows" is imperative- the opportunities and job vacancies are just waiting for students to take advantage of them and excel. According to a study by Bell and Fritz, "Students usually equate a career in agriculture with farming or ranching only, rather than with the science or business of agriculture which leads to a pervasively negative opinion of pursuing a career in agriculture" (Orthel, Sorensen, Lierman & Riesenberg, 1989; Bell & Fritz, 1992, p. 1). "Promoting careers in agriculture can be particularly difficult because of negative perceptions. Agricultural careers are often viewed as only being related to production agriculture and difficult work for low pay, and students are generally unaware of the wide range of careers available in agriculture" (Baker, Settle, Chiarelli, & Irani, 2013 p. 54; Dobbins, King, Fravel, Keels, Covington, 2002; Sutphin & Newsom-Stewart, 1995). Many students, as well as adults, hear the words agriculture industry, and assume that working on family livestock production operations or grain farming is all that there is to agriculture. However, only 10% of people employed in agriculture are actually employed by family farm production operations (Careers in Agriculture, 2015).

Some students may not take the initiative to research the available jobs in agriculture, or may just be completely unaware. For example, students may desire a career in agriculture

because they are interested in working outdoors (Wildman & Torres, 2002), but they may be less likely to actually choose a major in agriculture if they are not aware of relevant job opportunities (Myers, Breja, & Dyer, 2004). This is where high school agriculture instructors, the National FFA Organization, and even college and university recruiters come into the picture to inform and educate students on the possible opportunities of careers in the agriculture industry.

This lack of knowledge and interest could cause a decrease in enrollment in secondary and post-secondary agriculture programs (Martin, 2008). The decline in student enrollment; however, would not be due to a lack of employment opportunities for graduates. "Agriculture continues to struggle to find enough qualified students to advance the industry. Thus, recruiting practice improvement is imperative" (Baker, Settle, Chiarelli, & Irani, 2013, p. 1).

"The career opportunities in the agriculture industry today are vast and growing as we speak- around 58,000 job vacancies are open-when there are around only 35,000 agriculture graduates. There are not enough college graduates to fill these agriculture industry careers. These students with knowledge of agriculture, renewable natural resources, food, and the environment are needed for today's priorities of food security, sustainable energy, and environmental quality" (Goecker, Smith, Fernandez, Ali, & Goetz-Theller, 2015, p. 2). Food, fiber, and natural resources careers, or the agriculture industry, in other words, are necessary in today's world and will continue to be. In order to fill these positions, colleges and universities must first recruit excellent students. "The agriculture industry is offering exciting and plentiful opportunities for college graduates, challenging assignments, and opportunities for growth in an industry that combines local work with global impact" (Irlbeck, Adams, Akers, Burris, & Jones, 2014, p. 155; Byrum, 2012). "High levels of career decision self-efficacy correlate with students' persistence

in their chosen majors" (Nauta, 2007, p. 30; Thieman, Rosch, & Suarez, 2016). As of 2015, the agriculture industry employed around 22 million people in the United States (Careers in Agriculture, 2015). There are hundreds of different careers in the agriculture industry. Careers are divided into many categories that include Agri-science, Forestry, Horticulture, Communications, Agri-business Management, and Food Science (Careers in Agriculture, 2015). "Scientists, seed suppliers, crop insurers, bankers, food chemists, ethanol producers, veterinarians, risk assessors & quality control experts, institutional food buyers, are all a part of the Agriculture industry. This combination of individuals, institutions, and businesses must work together across barriers of different languages, different disciplines, and national differences to accomplish goals" (National Research Council, 2009, p. 25).

Colleges of Agriculture have the responsibility of recruiting and cultivating the workforce of the future for the diverse and dynamic agriculture industry. From the 2009 National Research Council, it was noted that "During the next ten years, colleges of agriculture will be challenged to transform their role in higher education and their relationship to the evolving global food and agricultural enterprise. If successful, agriculture colleges will emerge as an important venue for scholars and stakeholders to address some of the most complex and urgent problems facing (our) society" (National Research Council, 2009, p. 25).

A recommendation by the 2009 National Research Council suggested "Academic institutions offering undergraduate education in agriculture should engage in strategic planning to determine how they can best recruit, retain and prepare the agriculture graduate of today and tomorrow. Not only is this planning essential for the health of the college, but the future of agriculture as well. This strategic planning should be an extended and ongoing process of

change, evaluation, and adaptation. Implementation will need to follow the ideas, pilot testing, and continual assessment used to refine and improve new programs and policies" (p. 25).

Importance of Agriculture Education

A powerful quote from The National Research Council shows just how essential agricultural education -both post-secondary and high school- is to the future. "Agriculture departments play a role in shaping the future of agriculture and its role in sustaining our world" (National Research Council, 2009, p. 25). In order to fill the increasing demands of the agriculture, food, and natural resources industries, agricultural literacy is essential for today's society (Henry, Talbert, Morris, 2014; Borck & Bell, 2010; Bowen & Rumberger, 2002; Warner & Washburn, 2007). It has been mentioned earlier that the plentiful career opportunities in this industry are essential for the growth and prosperity of the world. However, there are concerns about the decline of agriculture students (Wildman & Torres, 2002). This shortage is not due to lack of opportunities, but lack of knowledge about these career opportunities. In general, students are unaware of the career opportunities that await them, even with evidence that students have interests in the scientific, business, social and environmental issues related to and involved with food and agriculture.

The food and agriculture system of today has developed into a more diverse industry that reflects the public's expectations. It encompasses the traditional practices of production to retailing, as well as the natural resources and human/community well-being (Torres & Wildman, 2001; Kunkel et al, 1996; National Research Council, 1996). A 2014 study by Henry, Talbert, and Morris reported "through participant belief that inclusion of agricultural education courses into curricula played a major role in breaking students' stereotypes regarding agricultural

careers" (p. 89). Today's educators are challenged with not only the task of helping a student make the connection with their interest in these issues and a degree, but ultimately a career in agriculture as well (National Research Council, 2009).

Agriculture has been a part of classrooms in the United States since the passing of the Morrill Act in 1862, also known as the Land Grant Act. The Morrill Act, sponsored by Justin Morrill, a Vermont Congressman, was officially titled "An Act Donating Public Lands to the Several States and Territories which may provide Colleges for the Benefit of Agriculture and the Mechanic Arts" (Primary Documents in American History, 2016; Encyclopedia Britannica, 2016). Over sixty colleges that specialized in mechanic arts and agriculture were created by these grants. Agriculture education often goes hand in hand with the National FFA Organization and its opportunities, and will be discussed later in the literature review. "Developing knowledge and skill in agriculture and natural resources to support the industry, occupational needs, and personal interests of students continues to form the foundation of school based agriculture courses, curricula, and teaching approaches…agricultural education programs, students, and teachers have never been as diverse as they are today, and the pressure to impact individual student success has never been greater" (Phipps, Osborne, Dyer, & Ball, 2008, Pg. 35). Educators of agriculture understand the importance of making education accessible to all students- regardless of their academic and social skills. The components of agriculture education include laboratory and classroom instruction, as well as supervised agriculture experience programs (SAE Programs). The National FFA Organization is another optional, yet common element in agriculture education in schools. "Ag Ed is based on a strong philosophy of learning through practice and application, individualized instruction, career and leadership development,

community based programs, and exposure to the agricultural industry as a dynamic, high-tech field of vital importance to individuals and society at large" (Phipps, Osborne, Dyer, & Ball, 2008, Pg. 34). Post-secondary agricultural education prepares students for agricultural occupations- with some occupations available directly out of high school (Phipps, Osborne, Dyer, & Ball, 2008). Past studies have reported that high school courses had a great influence on choice of major to study, which in turn influences choice of college (Barkley & Parrish, 2005; Dyer, Breja, & Andreasen, 1999; Dyer, Breja, & Wittler, 2002; Wildman & Torres, 2002).

Importance and Impact of the National FFA Organization

Students enrolled in high school agriculture classes get a competitive edge in many aspects of agriculture, especially in the awareness of agriculture careers and opportunities, as well as earlier awareness of the agricultural colleges at 4 year universities. These students also have the opportunity to be a part of the National FFA Organization, an "intercurricular student organization for those interested in agriculture and leadership" (What is FFA, 2015). Today, there are over 600,000 members of the National FFA Organization in the United States (National FFA Organization, 2015).

The National FFA Organization provides learning, leadership, and career development opportunities. The National FFA Organization is also shortened and referred to as "FFA" by many people. The mission of the organization speaks volumes of the positive impact it can bring upon students. "FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agriculture education" (FFA Mission, National FFA Organization, 2015). The activities and events that FFA members can take part in range from career development events, earning scholarships,

conventions showcasing student's achievements, and giving students opportunities to meet FFA members from around the country, as well as network with agriculture companies and agricultural colleges and universities. Career development events are where students can compete against other agriculture students (FFA members) while polishing skills that will be useful in future careers, like public speaking, agricultural animal critiquing, critical thinking, solving business related problems, food safety, and agronomy, to name a few. Each year, the National FFA Organization offers thousands of dollars in college scholarships and grants to high school agriculture departments for education. At state and national FFA conventions, students have opportunities to showcase their FFA achievements, such as winning at career development events, science fair presentations, and earning FFA degrees.

Students are also given time to explore the career and college fair at these conventions. Agricultural companies, community colleges, and universities are there to speak with students about their opportunities with the companies or what the community colleges and universities have to offer the students. The College of Agricultural Sciences has a well-known presence at the Illinois state and national FFA conventions. These conventions are excellent opportunities to educate and recruit high school agriculture students about the many opportunities in the agriculture industry available for them. The National FFA Organization has an extremely positive impact for the agriculture industry, agriculture divisions at community colleges, universities, and most importantly, the students. "The National FFA Organization (FFA) is a career and technical student organization which contains components emphasizing agricultural knowledge, citizenship, leadership, and life skills (Phelps, Henry, & Bird, 2012, p. 70; Brown, 2002; Dormody & Seevers, 1994; Horstmeier & Ricketts, 2009; Larson, Hansen, & Walker,

2005; Miller, Anderson, Swafford, & Seibel, 2007; Wood, Larson, & Brown, 2009). FFA is currently one of the largest youth development organizations available in U.S. public schools that provides numerous positive youth development opportunities to students enrolled in school–based agricultural education programs" (Phelps, Henry, Bird, 2012, p. 70; National FFA Organization, 2015).

In the later years of the 20th century, enrollment in the FFA began to decline. The FFA realized the concern of this, and then implemented changes to the organization. These changes included updating the organization name and programming, and continue today. "These changes were intended to reverse the declining enrollment trend by expanding the image of FFA beyond production agriculture to attract a larger, more diverse group of students possessing a broad range of backgrounds and interests" (Phelps, Henry, Bird, 2012, p.71; National FFA Organization, 2010; National Research Council, 1988). "FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education" (FFA.org, 1995). Along with striving to accomplish the FFA mission, members are required to follow a code of ethics (FFA.org, 1995).

Impact of Parental Influence

Many factors impact a student's choice to continue their education. High school teachers, counselors, coaches, and agricultural educators have their own level of influence, but recent studies show that parents have the highest impact and influence on a student's choice of higher education (Rayfield, Murphrey, Skaggs, & Shafer, 2013; Chapman 1981). Specifically, a mother's influence is noted as the most influential individual when it comes to making career decisions, which is usually parallel with selecting an institution of higher education (Thieman,

Rosch, & Suarez, 2016; Faulkner, Baggett, Bowen, & Bowen, 2009; Marx, Simonsen, & Kitchel, 2014; Rocca & Washburn, 2005; Wahl & Blackhurst, 2000).

Parental influence is first, and is then often followed by the influence of friends (Barkley & Parrish, 2005; Herren, Cartmell, & Robertson, 2011; Jackman & Smick-Attisano, 1992; Chapman, 1981; Reis & Kahler, 1997; Donnermeyer & Kreps, 1994). In a study by Osborne & Dyer in 2000, it was shown that parents thought positively of their children enrolling in high school agriculture classes, but were not so sure about encouraging their children to go into an agriculture career. This is a reason why finding ways to educate parents, as well as the general public, on the many career opportunities in the agriculture industry, is so important.

The College of Agricultural Sciences cannot reach out and educate everyone in the world about the career opportunities in the agriculture industry, but it can start to educate on its own campus. One of the college's registered student organizations that is open to all majors, the Collegiate Farm Bureau, sets aside certain days of the year to pass out apples and popcorn to students on campus, and initiate discussions and answer questions about the agriculture industry. These minimal efforts can educate a few at a time, and can develop into more conversations with other students about career opportunities within the agriculture industry, then can turn into conversations with adults and parents as well.

Importance of an Affordable Education

"Regardless of the type of schooling purchased, an expenditure for postsecondary schooling is an investment if it generates additional income in the future; the skills acquired during these years of study are the human capital or asset created by the investment" (Becker,

1992, p. 92). With this idea in mind, students view higher education as investment, and not an investment to take lightly. “Benefits of higher education are realized by both individuals and society. Today, public perception is that the benefits of higher education are more of a personal investment (Gohn & Albin, 2006, pgs. 16-17; Malveaux, 2003). Some individual benefits include wider personal opportunities and increased quality of life after college. Society benefits include lower levels of unemployment, higher levels of community-civic participation and lower levels of poverty (Gohn & Albin, 2006).

Students respond to reductions in price and lower costs when selecting an institution of higher education. Students also compare costs of heading straight to the workforce, attending community college first, then possibly transferring, compared to attending a 4 year university directly after high school. The costs of universities and community colleges have a large effect on whether students will attend or not (Hilmer, 1998). To assist students in seeing the value of the price they are paying for their education, institutions will ensure students are aware of employment opportunities that are available after they graduate (Ishitani, 2006). “We recognize that college is both an investment and a consumer good, and that the taste for college may vary with individual background” (Kohn, Mansk, & Mundel, 1976, p. 394). This is present now more than ever, and while students do see college as an investment, they are willing to shop around and search for the most affordable institution to fit their academic needs. At the time of this study, the SIU Board of Trustees was set to consider a $257 million housing construction plan that officials hope and would increase student enrollment and improve retention rates. SIU President Randy Dunn said “This increase is not likely to deter prospective students from enrolling at the university and we think it will build the attractiveness of the campus as a whole.

Families today are willing to pay a price for something that's seen as a good value," Dunn said. (Leonard, 2016). Previous studies have shown that students respond positively to availability of financial aid packages, grants, work study, and scholarships (Ishitani, 2006; Paulsen, 1998; Hochstein & Butler, 1983).

College of Agricultural Sciences Recruitment and Retention Efforts

Recruitment for the College of Agricultural Sciences is a group effort. The recruitment and retention efforts of the COAS at SIUC include Agbassador recruitment visits to high schools, community colleges, college fairs, State and National FFA Conventions, and Farm Progress Shows. The open house events, college showcases, and COAS farm tours are a major factor in the COAS recruitment efforts. The most useful source of information for a potential student choosing a college, according to Washburn, Garton, & Vaughn's study, was a campus visit. (Washburn, Garton, & Vaughn, 2002).

FFA events for high school students held at the COAS are a recruiting goldmine as well. The COAS has a strong connection with high school agriculture teachers; this is a positive connection in general. This is especially significant for their recruitment due to the fact that, as explained in the *Journal of Agricultural Education* by Calvin and Pense (2013), more time is spent with agriculture teachers and their students than with other teachers. These connections give many opportunities to talk about and visit the COAS at SIUC. Other recruitment efforts from the COAS include mailings, informative brochures, and advertisement. Talbert et al. (1997) suggested "higher education institutions, particularly colleges of agriculture, should aim to expand recruitment efforts to include underrepresented students. Urban school districts provide opportunities for an increased applicant pool with larger populations of students from diverse

ethnic backgrounds. Expansion and development of urban secondary agricultural education programs would significantly increase agricultural awareness among urban students and in turn recruitment opportunities for higher education" (Henry, Talbert, Morris, 2014, p. 90; Talbert et al. 1997). The COAS recruitment efforts certainly have listened to suggestions as such, and implemented statewide and neighboring state recruitment, as well as visits to urban areas such as St. Louis and Chicago High School for Agricultural Sciences.

The faculty and staff's efforts of advisement are an extremely important factor in our student's retention. Without their efforts, students would lack guidance and would be more likely to drop out without being steered into the right direction. COAS students have the option of living in a Living Learning Community, or LLC, where agriculture students can live, study, and connect together in the same building. In a study done by Moore and Shulock, it was found that students that lived in learning communities were "found to be more engaged and to have a stronger sense of belonging to the campus community" (Moore & Shulock, 2009, p. 8). SIUC COAS freshman students are required to take an orientation class (UCOL) that gives them an introduction to college life and surroundings and how to navigate their way through college. In the same study by Moore and Shulock, it was shown that there are benefits to first year students taking an orientation course (Moore & Shulock, 2009).

Current students and alumni play an important part in recruitment and retention of COAS students, perhaps without even knowing their impact. When alumni speak about their careers and the path to where they are now, many mention their Alma Mater with pride. Current students visit home and talk about their experiences, and this spreads the word about and perhaps even recruits others to at least consider SIUC COAS when contemplating where to attend college.

CHAPTER III

METHODS

Methodology and Procedures

While this is not a true mixed-methods study, the survey involved quantitative and qualitative responses. The data for this qualitative study were collected from current undergraduate students enrolled in their first year in the COAS at SIUC. All first year freshmen students and transfer junior students enrolled in the COAS were given the opportunity to participate in the survey. With the total undergraduate enrollment of the COAS being 826 students, the 184 eligible students (first year freshman and transfer juniors) made up for 22% of the entire COAS undergraduate students. The survey consisted of a twenty-one question instrument, sent through the student's university email. Southern Illinois University students are assigned their personal email addresses when they accept to attend and register for classes at SIUC. This email is the main form of outside class communication between students and their instructors or professors. "Virtually all members of some survey populations now have web access and the ability to use it for responding to questionnaires. University students are examples of such populations" (Dillman, Smyth, Melani, 2009). The student's email addresses were obtained from the COAS Dean's Office after application and approval of Human Subject Approval forms. A common sampling error in studies involves not surveying the entire population, just a part of the population (Dillman, Smyth, & Melani, 2009). In this study, this common error was avoided due to the fact the population had access on campus to their email and the internet. By utilizing the university email, false respondent bias could be prevented, and students were most likely to check this email server at least twice a week while doing school

work. The survey was sent the first week of the fall semester, so students were not loaded down with homework, projects, and tests at this point. Dillman et. al (2009) suggests to personalize the email contacts so that the participants won't see the addresses of other participants. This assists in privacy, as well as having the participant not feel like part of a mass mailing. The email containing the survey link was sent with all recipients listed in the Blind Carbon Copy (BCC) line, so the receiver would only see the author's name in the address lines. This personalization increases the feeling of confidentiality, as well as increasing the likelihood of receiving responses if it appears to be individually sent (Dillman, Smyth, & Melani, 2009).

The section "Testing for Correctness" of the study by Baker, Crawford, & Swinehart (2004), provided some framework for the questions to ask the sample population during the pilot test stage. Their suggestions included "Are all questions and answers present, in the proper order, with no spelling or grammatical errors? Have the organization's standards been followed? Are all specified fills, whether from sample preloads, from respondent answers, or generated internally by the application program correct and appearing as specified?" (Baker, Crawford, & Swinehart, 2004, Pg. 375). The Advisory Committee and Dillman's (2011) guidelines provided suggestions throughout the entire survey process. The pilot stage and revisions from it are essential, in order to prevent inaccurate answers due to unclear wording of questions (Dillman, 2011). The pilot test and its suggestions were to ensure these issues would not arise in the final survey.

The pilot of this instrument was carried out in April 2016 to a test sample population of 20 current COAS students. These students were a mixture of majors, ages, and grade levels. Some of the students were members and officers of Registered Students Organizations, including

but not limited to, Agbassadors, Collegiate FFA, Forestry Society, Collegiate Farm Bureau, and Pre-Veterinary Club. Some students were non-traditional, serving in military branches before attending college, or having a few years in between high school and attending college. The author felt that some of the selected students were most likely to complete a survey in order to help the College of Agricultural Sciences, considering their current involvement with the COAS. Other students selected for the pilot test survey were students that were not involved with the COAS, other than being current students. The author attempted to include all types of students in order to get a well-rounded range of opinions. Twenty students received the pilot test of the survey through their SIUC email, with an attachment to the link for the survey within Google Docs. After answering the 21 questions for the pilot test survey, there were additional open-ended questions involving where the survey could be improved and provided opportunity for suggestions. Only 10 students responded to the pilot test. The author feels the lack of responses was due to some students not being familiar with the researcher, and in April many students are not engaged for the semester and/or focusing solely on finals, careers, and summer plans. After receiving feedback, a few minor alterations were made to the instrument, including adding possible responses such as “none of the above”, and “neither” to fully include answers from students that may have not had experiences with events involved within the survey question. These suggestions and feedback from the pilot test helped ensure that the survey questionnaire was clear, concise, and the responses would prove useful to the research.

In the first week of the fall 2016 semester, 185 students were emailed the survey in Google Forms through the SIU student email server. These students were a sample consisting of only the first year freshmen and transfer students enrolled in the COAS. The link for the survey

within the email sent students to a Google Form to complete the survey. Of the students that were emailed, the author received 1 error email, for the student was no longer part of the COAS, which reduced the sample to 184 students. Of the 184 students contacted, the author received 62 completed surveys, providing a response rate of 34%.

Instrument and Survey Design

The survey instrument was designed based on reviewed literature of channels and factors that affect undergraduate student recruitment in institutions of higher education. This questionnaire style survey is a qualitative review of current student's perceptions of the COAS and its recruitment efforts. The questionnaire style survey included 21 questions (Appendix A). The questions were based on research of similar studies, and influencing factors of college decisions. The questions were set up in multiple ways, including multiple choice, yes/no, while many questions gave opportunities for written responses, as well as suggestions on what could improve the COAS in general and the transfer process to the COAS. Additionally, a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, 5 = Strongly Agree) was included in the instrument for question responses. Questions inquired how the participants first discovered SIUC COAS, initial perspectives of SIUC, scholarships received from SIUC, influences on their decision to choose SIUC such as parents, teachers, and other factors. Participants also had chances to answer what recruitment events initially informed them about SIUC & the COAS, kept an interest in, and eventually brought them to the COAS to complete their degree. Some examples of recruitment events included in the survey were Agbassador Recruitment, Mailings and Information Brochures, Friends and Family's Influence, and Financial/Price/Scholarships, to name a few.

Tables are included to show which events were the most influential in recruiting students to the COAS. This information was to assist the COAS in evaluating their recruitment.

Measures

The main instrument used in this study was Google Forms to give the questionnaire style survey and assist in collecting the data. Both closed and open-ended questions were included. With only one survey administered, there were no risks of pre/posttest or test reliability issues (Trochim, 2006). The author considers this instrument reliable, since each time it was used, the author received the same information, aside from the variance in the open ended response sections (Trochim, 2006). The instrument was viewed and used the same by each respondent. The reliability was criterion referenced, from the review of literature and discussions with the advisory committee, educators, and students of higher education.

Survey Design

A web-based, questionnaire style survey for this study was thought of as the best alternative for gathering information. One reason was that web-based questionnaires are "easy to administer, efficiently gather relatively large amounts of data at a low cost, and can reach a large number of people with the touch of a key" (Sivo, Saunders, Chang, & Jiang, 2006, Pg. 352.; Dillman, Smyth, & Melani, 2009). Compared to being interviewed face-to-face, the respondents may feel more comfortable providing answers. The structure of the survey's questions can "allow respondents to provide answers about themselves or some other unit of analysis such as their work group, project, or organization" (Sivo, Saunders, Chang, & Jiang, 2006, Pg. 352; Dillman, 2000). With Internet usage in the United States at an all-time high, as in at least 84% of

the population (World Bank, 2013), information technology use in education has continued to increase. Many college students have described the Internet as a functional tool that helps them to communicate with professors, conduct research, and access library materials" (Rhoades, Irani, Telg, & Myers, 2008, p. 108). College students represent the largest population of Internet users (LaRose, Mastro, & Eastin, 2001). Noticing that students use the internet daily, sending the survey through SIU email on the internet was thought to be the most efficient way to deliver the survey.

Dillman's Tailored Design Method (TDM) (1999) was utilized in this study. This methodology was created to account for the uncontrollable factors in a survey study that affect subject's participation and levels of response. These uncontrollable factors that affect survey participation can include the population's attitudes and their own beliefs (Dillman, 2011). "The backbone of Dillman's Tailored Design Method is its use of five necessary elements: (One) a respondent-friendly questionnaire, (Two) a five-contact strategy, (Three) a return envelope with real first-class stamps, (Four) personalized correspondence, and (Five) token prepaid financial incentives" (Sivo, Saunders, Chang, & Jiang, 2006 pg. 365; Dillman, 1999). For an online survey, element (Three) is unnecessary. Elements (One) and (Two) were included and are discussed further in this study. Element (Four) was partially implemented, with face to face discussions with fellow COAS students in passing and in classrooms. As for element (Five), the satisfaction of assisting a fellow Saluki and their COAS was considered the incentive to participate.

The pilot test ensured the survey was easy to read and understand by the participants. Revisions were made according to the participant's suggestions. Their suggestions, as well as

Dillman's guidelines for surveys assisted in the ease of completing the questionnaire survey. A Dillman survey guideline is to "ask questions about events in the order the events occurred" (Dillman, Smyth, & Melani, 2009). The author placed the survey questions, in order from where a student initially discovers a university, through the recruitment process, all the way through to the selection of and then attending the university. Peter Dirks, SIUC's Coordinator of Recruitment, Retention, and Student Success (personal communication, March 2016; Publication Manual of the American Psychological Association, 2011) assisted in guiding the construction of this criterion, as well as the review of the literature. Dillman also suggests to "place items with the same response categories into an item-in-a -series format" (Dillman, 2000). Dillman also advised to "keep questionnaires short on voluntary surveys" and make questions "relevant, fast, and easy" (Dillman, Smyth, & Melani, 2009). The author considers 21 questions are a short amount and can be answered quickly, yet asks an ample amount of questions to get the most information with little effort from the respondents.

According to Dillman, (Dillman, Smyth, & Melani, 2009), at least 5 contacts, or 5 different ways of reaching out to the participants are suggested in order to receive the most responses for a survey. Dillman stated "Multiple contacts are essential for maximizing response to surveys" (Dillman, Smyth, & Melani, 2009). The first contact was sending the survey on Google Forms through students' Southern Illinois University emails. This was sent the first week of school, in order to prevent bias from the students enjoying (or not) the school-related and extracurricular events from their first semester. The next contact consisted of visiting the university college class for freshmen students. The importance of and who had already taken the study was discussed. The number of responses after the first and second contact were 36. To

increase the response rate, the author sent the survey link to the COAS Dean's Office to be sent out from their official email address. This contact included Dillman's suggestion of sponsorship by an authority. "Obtain sponsorship by legitimate authority. People are more likely to comply with a request if it comes from an authoritative source that has been legitimized by larger society to make such requests and expect compliance (Dillman, 2000, p. 28, Manucia, Baumann, & Cialdini, 1984; Groves, Cialdini, & Couper, 1992). The COAS Dean's Office email address sent the survey through SIU email to the same students two weeks after sending the original email. After this, the response rate had increased to 44 responses. The next contact was conversing with friends that are current students about the importance of the study, and asking them to remind their friends that received the email about the survey to please complete the survey. The response rates then increased to 47. The next contact to increase the response rate was placing printed reminders around the Agriculture building in common areas to remind students to complete the survey, but the survey response rate did not show any signs of an increase. The final contact was, with the permission of faculty and instructor staff, visiting classes with large amounts of first-year students and discussing the study, then bringing eligible students who have not taken the study to a reserved computer lab to complete the survey. This increased the response rate to 62. This different technique was suggested by the graduate committee, (Dr. Pense, Dr. Clemons, Dr. Schoonover, and Mr. Dirks, personal communication, 2016) and is also in line with Dillman's suggestions of using different techniques to increase response rates. "Different from previous ones are generally more powerful than the repetition of a previously used technique" (Dillman, 2000, Pg. 243).

For criterion-referenced tests, Wiersma & Jurs (1990) provide general "factors through

which a researcher may enhance the reliability of an instrument" (Pense, 2002). The researcher used the following factors to assist in the development of the instrument: "High-quality copying and format: Make sure that the items are legible and not too crowded on the page. A test that looks sharp will promote an appropriate reaction from the students. Clear directions to the student: The student needs to know how to respond to the questions. Any ambiguity may introduce inconsistencies. Discriminating items: Items that have undergone item analysis and have been found to be positively discriminating will increase the test's reliability" (Pense, 2002; Wiersma & Jurs, 1990). The author did not collect demographic information, such as gender and ethnicity, in order to avoid deterring participants from completing the survey. The author did not want to ask any personal or identifying information due to concerns it would lower the response rate. According to Dillman (2000), questions like demographics, can cause the survey taker to be uninterested. A survey taker finding an uninteresting survey can put the risk of an incomplete survey to the table. Another reason for not collecting demographic information was that the university already had this information, and it could be viewed if one was interested enough. The content of the answers was viewed as the most important factor.

Survey Response

Out of the 184 surveys sent out, the author received 62 responses, resulting in a response of 34%. According to Babbie's study (1990), a 60% response rate is acceptable and noted as "good" (Babbie, 1990; Sivo, Saunders, Chang, & Jiang, 2006). Although the response rate of 34% is not the rate the author had hoped for, it was still a meaningful amount of data and would assist the COAS in evaluating their recruitment. The reasons for the large non-response rate could be a factor of many things- students do not have the time or concern for the survey, and

some students may have started but did not complete the survey. One assumption by the author of a reason for some of the non-response involves the current concerns of SIUC students and their their email addresses. Some SIUC email addresses have been compromised by a student receiving an email from a supposed SIU student (name@siu.edu), opening the email, then accidently clicking and following links to "upgrade their email account" from a "SIU Helpdesk Administrator", and then their account is compromised by the hackers, along with receiving several thousand junk emails in a short span of time. Because of this, students may be wary of an email from an unfamiliar SIUC student, concerned that it may contain a virus or may compromise their email account. This leads to them ignoring, deleting, and possibly marking the email as "spam" or "junk". Dillman discusses this type of non-response error in his work as well. "Clicking on links and responding to surveys is also a scary process for some responders, less because of their objections to the survey, than because of the worry about whether such an action will result in their computer being infected by a virus" (Dillman, Smyth, & Melani, 2009 pg. 445). This reasoning is why the author's final contact of visiting the classrooms face-to-face was used to ensure students knew about the survey, as well as trusted the source it's coming from to prevent this fear or hesitation of taking the questionnaire survey. Applying tis contact earlier in the study could have positively affected the response rate. Non-response from participants is always a threat to survey studies, so the author was sure to apply multiple contacts to ensure the author received the largest number of responses possible.

To account for a non-response error, a statistical t-test was conducted between early and late respondents. After running the test, it was found that there was no significant statistical difference. Research reported by Clausen and Ford (1947) shows that non-respondents and late

respondents are similar. (Pense, 2009; Clausen & Ford, 1947). Based on the t-test results and this previous study, it was correlated and assumed that no difference would exist between the non-respondents and respondents in this study.

The T-test was run with the survey question 6 ("On a scale of 1 to 5, [1 being the least, 5 being the greatest] what was your high school/community college's perception of SIU College of Agricultural Sciences?") and survey question 15 ("On a scale of 1 to 5, [1 being the least, 5 being the greatest] what were your initial perceptions of the Carbondale Community and SIUC?"). These questions were selected to compare to each other due to the fact that they both had Likert scale rankings for the responses.

CHAPTER IV

RESULTS

Limitations

An important disclaimer to note is that due to the response rate, the results cannot be generalized to others outside the survey population. Sixty-six percent of the survey population did not participate. Some students may have forgotten to fill out or finish the survey. Another shortfall was that only the first year freshman and transfer students that were enrolled in undergraduate courses at the COAS currently in the fall of 2016 were included in the study.

Another limitation of this study was that the results cannot be generalized for all college aged students, but may give insight on what may recruit and retain students to other agricultural colleges similar in size to the COAS. Another limitation is that there was a brief time frame to ask these questions. The survey was presented in the first month of the fall 2016 semester. The students and their responses may have changed as their time at SIUC COAS progressed.

This project could easily be continued throughout the years, and varying answers could be seen from other students as the study continues.

Findings

Care should be taken in generalizing findings to populations. While the findings cannot be generalized to others outside of the survey population, the sample was purposeful, and the study is descriptive of the population (Dr. Pense, 2017, personal communication). The survey found several major factors in a student's decision to attend the COAS that were similar to other studies. Parents were listed as the largest influence on a student's decision for choosing SIUC (selecting a college or university), closely followed by High School FFA Advisor/Teacher.

Participants listed that the provision of scholarships by SIUC and the affordability of SIUC were major factors in their choice of SIUC. When it comes down to the final choice of attending SIUC, the most common factors that students listed were the reputation of SIUC COAS, and the welcoming and helpful faculty and staff. Most student respondents have had interactions with Agbassadors and SIUC recruitment; including classroom visits, visiting at FFA conventions and agriculture shows, and SIUC provision of email and mail information. Respondents have all had opportunities and interactions at open houses and tours of the COAS. Overall, initial perceptions of SIUC, COAS and the Carbondale community were viewed positively by students, high schools, and community colleges.

Perception of SIUC, COAS, & Carbondale Community

Most of the student respondents agreed that the COAS offered all educational aspects they value in post-secondary education (Question 1). 24 (38.7%) responses strongly agreed, 37 (59.7%) responses agreed, 1 (1.6%) neutral response, and 0 responses disagreed/strongly disagreed that the COAS offered all educational aspects they value in post-secondary education. Results are shown below in Table 1.

Table 1 SIUC- COAS Student's Perception of Educational Aspects

SIUC- COAS Student's Perception of Educational Aspects

(N= 184 n= 62)

Score	*n*	%
Strongly Agree	24	38.7
Agree	37	59.7
Neutral	1	1.6
Disagree	0	0
Strongly Disagree	0	0

The student respondent's High Schools and Community Colleges had high perceptions of the COAS (Question 6). Scores were on a scale of 1 to 5, with 1 being the least, 5 being the greatest. The mean score was 4. The responses ranged from 1 to 5, with most values at the high end. 22 (35.5%) respondents scored the perceptions as 5, 27 (43.5%) respondents scored the perceptions as 4, 12 (19.4%) respondents scored the perceptions as a 3, 0 respondents scored the perceptions as 2, and 1 (1.6%) respondent scored the perceptions as 1. Results are shown below in Table 2.

Table 2 High School/Community College Perception

High School/Community College Perception

(N= 184 n= 62)

Score	*n*	%
5	22	35.5
4	27	43.5
3	12	19.4
2	0	0
1	1	1.6

The student respondents' initial perceptions of the Carbondale Community and SIUC (Question 15) were very high. The median score was 4. 28 (45.2%) respondents scored their perceptions as 5, 24 (38.7%) respondents scored their perceptions as 4, 7 (11.3%) respondents scored their perceptions as 3, 2 (3.2%) respondents scored their perceptions as 2, 1 (1.6%) respondent scored their perceptions as 1. Results are shown below in Table 3.

Table 3 Perception of SIUC- COAS & Carbondale Community-Student's Initial Perception

Perception of SIUC- COAS & Carbondale Community

Student's Initial Perception

(N= 184 n= 62)

Score	*n*	%
5	28	45.2
4	24	38.7
3	7	11.3
2	2	3.2
1	1	1.6

Student Contact with the COAS

A student's High School Agriculture Teacher was the top response for how the student first heard about SIU COAS (Question 3) with 19 responses (30.6%). Next, 11 responses (17.7%) for parents. Other responses included SIU mailing with 6 responses (9.6%), the student's own college search/research or through a friend with 5 responses (8%), and SIU recruitment visiting their classroom with 4 responses (6.5%). While events were listed as individual aspects, SIUC recruitment visits and SIU mailings are efforts of COAS recruitment coordinator and the team of Agbassadors. The recruitment coordinator and team have visited high schools and community colleges over the years and have built a connection with the teachers. Combined, the mailings and recruitment efforts are closely behind the next largest response of parents. Other responses include High School Guidance Counselor, SIUC Alumni,

and Community College Agriculture Teacher, each with 3 responses (4.8%), FFA Event at COAS with 2 responses (3.4%), and 1 response (1.8%) for other, a Baseball Coach contacted the student. Results are shown below in Table 4.

Table 4 Student Contact with COAS -How did you first hear about SIU COAS?

Student Contact with COAS

How did you first hear about SIU COAS?

(N= 184 n= 62)

Contact	*n*	%
High School Agriculture Teacher	19	30.6
Parent/Family	11	17.7
SIU Mailing	6	9.6
Own Research	5	8
SIUC Recruitment Visit	4	6.5
High School Guidance Counselor	3	4.8
SIUC Alumni	3	4.8
Friend	5	8
FFA Event at COAS	2	3.4
Community College Agriculture Teacher	3	4.8
Other, Baseball Coach Contacted Student	1	1.8

For Question 4, "Did you initially visit SIU College of Agricultural Sciences through your High School or Community College?" 43 responses (69.35%) show that the student's initial visit to SIU COAS was on their own. Eighteen responses (29%) initially visited on a high school trip and 1 responded (1.6%) that they initially visited on a community college sponsored trip. Results of Question 4 are shown below in Table 5.

Table 5 Student Contact with COAS - Initial Visit to SIU COAS

Student Contact with COAS

Initial Visit to SIU COAS

(N= 184 n= 62)

Contact	Yes Responses	%
High School	18	29
Community College	1	1.6
On Own	43	69.4

Many student responder's first/initial visit to the COAS was not through a National FFA Organization Event (Question 5), with 43 (69.4%) responses of No. The survey did not specify what type of FFA event (District or State event). These results are shown in Table 6.

Table 6 Student Contact with COAS - Initial Visit to SIU COAS through FFA?

Student Contact with COAS

Initial Visit to SIU COAS through FFA?

(N= 184 n= 62)

	n	%
Yes	19	30.6
No	43	69.4

Most of the student respondents have attended an SIUC Open House with 33 responses (53.2%), and many have attended a tour, with 19 responses (30.6%). The question did not specify if this was a tour given after an Open House, or an individual tour the student set up with the COAS. 10 respondents (16.1%) have attended both an Open House and a Tour. Results of Question 7 are shown in Table 7.

Table 7 Student Contact with COAS- Attendance of Open House, Tour

Student Contact with COAS

Attendance of Open House, Tour

(N= 184 n= 62)

	Yes Responses	%
Tour	19	30.6
Open House	33	53.2
Both Tour & Open House	10	16.1

For Question 11: "Did you initially visit SIU College of Agricultural Sciences on your own? (Specifically, initially visited without a high school/community college sponsored trip)", 47, (75.8%) responded yes.

Contact by the COAS and Agbassadors

The COAS and Agbassadors reaching out to potential and current students was another part of the recruitment process. For Question 12: "Have you had any SIU College of Agricultural Sciences Agbassadors visit your school?" Of the responses, 20, (32.3%) answered Yes. 42 (67.8%) responded No. For Question 13 (Question 13: "Have you spoke to and/or observed SIU Agbassadors at College/Career Fairs, FFA Conventions, and/or Farm Shows?), 14 (22.7%) respondents have communicated with Agbassadors at these events, while 21 (33.9%) respondents have not attended any of the events. The results of Question 13 are shown below in Table 8.

Table 8 Communication with Agbassadors

Communication with Agbassadors

(N= 184, n=62)

Student Responses of Events	*n*	%
Yes, at All Events*	14	22.7
Yes, at State & National FFA Convention	11	17.7
Yes, at Farm Shows	2	3.2
Yes, at College/Career Fair	3	4.8
No, Have Not Noticed at Events	11	17.74
No, Have Not Attended Events	21	33.9

Note: *All Events are College/Career Fairs, FFA Conventions, and Farm Shows.

For Question 14 (Question 14: "Have you received SIU College of Agricultural Sciences information in the mail, email, or both mail and email?"), 45 (72.6%) respondents received SIU COAS information in both mail and email. 1 (1.6%) respondent did not receive either. Only receiving mail or email had 8 responses (12.9%) each. The results of Question 14 are shown below in Table 9.

Table 9 Contact by COAS

Contact by COAS (N=184, n=62)

Types of Contact	*n*	%
Mail	8	12.9
Email	8	12.9
Both Mail & Email	45	72.6
N/A, Received Neither Mail or Email	1	1.6

Family & Friends Influence

Family, and Parents specifically, were listed as the most influential in college selection, followed closely by High School Agriculture Teachers.

For Question 8: "Do you have any family that have attended SIU College of Agricultural Sciences?" there were 13 Yes responses (21%). For Question 9: "Do you have any friends that have attended SIU College of Agricultural Sciences before you arrived at SIU College of Agricultural Sciences?" there were 38 Yes responses (61.3%). For Question 10: "Have you

visited any friends/family near Carbondale before attending SIU College of Agricultural Sciences?" there were 26 Yes responses (41.9%). These results are shown below in Table 10.

Table 10 Influences of Family & Friends

Influences of Family & Friends (N=184, n=62)

Survey Questions	Yes Responses	%
Do you have any family that has attended SIU COAS?	13	21
Do you have any friends that have attended SIU COAS before you arrived?	38	61.3
Have you visited any friends/family near Carbondale before attending SIU College of Agricultural Sciences?	26	41.9

For Question 16 "Please rank in order which stakeholder had the largest influence on your decision in choosing SIUC College of Agricultural Sciences: Parent/Guardian, High School Teacher/Advisor, High School Guidance Counselor, Community College Teacher, if other, please specify", 30 students (48.3%) listed Parent/Parents as the largest influence on their decision, closely followed by 17 responses (27.4%) of High School FFA Advisor/Teacher listed as the largest influence. Community College Teacher, High School Guidance Counselor, and Friends were also listed as the largest influences in some responses. Other responses included: 4 responses for the reputation of the COAS; 2 responses with career aspirations for agriculture influencing their choice, 1 response for the affordability of SIUC compared to other in-state universities, 1 response for visiting the college, 1 response for the vicinity to their home, a

response that mentioned that “Students came to my Veterinary Science class and spoke about the college”, and “Peter Dirks” (Coordinator of Recruitment, Retention, and Student Success).

Affordability/Finance

Most of the students that completed the survey received some form of scholarship, and many took into consideration the affordability of the COAS when making their decision. The results of Question 18 "Did the price of attending SIU College of Agricultural Sciences have a major influence on your choice?" showed 35 Yes responses (56.5%). Question 19: "Did you receive a scholarship through SIU?" showed 47 Yes responses (75.8%). These results are shown below in Table 11.

Table 11 Affordability of COAS

Affordability of COAS (N=184, n=62)

Survey Questions	Yes Responses	%
Did the price of attending SIU COAS have a major influence on your choice?	35	56.5
Did you receive a scholarship through SIU?	47	75.8

Choice of SIU COAS

As for student’s consideration of other colleges or universities (Question 17), 15 of the student responses (24.2%) show that no other universities or colleges were considered. The author felt it was worth mentioning the student’s response of “No, SIU has the best Forestry

Program". Several other colleges and universities were considered, including the University of Illinois in Champaign- Urbana, Murray State, Illinois State, and several Illinois Community Colleges. Eighteen responses included consideration of The University of Illinois in Champaign-Urbana, Illinois; 10 responses included consideration of Murray State in Murray, Kentucky; 9 responses included consideration of Illinois State University; 7 responses included various Illinois community colleges. Several neighboring and in-state universities were mentioned at least twice, including: Iowa State, SEMO, Mizzou, Purdue, and Western IL. Sixty-two responses were received, yet most responses listed more than one school.

Overall, the COAS's reputation of their programs was the most common response to the question (Question 21) of "What were the primary factors that made you choose to attend SIU College of Agricultural Sciences?" Twenty-one responses included the mention of SIUC COAS' reputation of their excellent Agriculture Program. The affordable price of SIUC COAS was the next common response, with 13 responses including the mention of affordability/cost/price. This was closely followed by the COAS being close to the students' home, with 12 responses. The location, environment, and scenery (including proximity to the Shawnee National Forest) was the next common response with 8 responses. Knowing alumni of COAS (family, friends, and teachers, specifically) and the people of the COAS (the people, staff, and faculty, specifically) were the next common response with 7 responses each. This ties in with the friendly, family and welcoming atmosphere response, which was mentioned 6 times. There were 4 responses that specifically mentioned that SIUC COAS "felt like home". Each were listed in the responses 3 times: Degree holders from SIUC COAS have excellent job placement, and received a scholarship.

Several responses mention specific programs, and were listed twice: Equine Science, Pre-Vet, and Horticulture. The Accredited Forestry Program was listed four times. The following were listed in the responses twice: The farm, campus size, networking opportunities, the Clubs/Organizations SIUC offered (CFFA and Agbassadors specifically), and research opportunities as an underclassman."

Several responses mentioned a helpful faculty or staff member, and the welcoming atmosphere of the COAS. Participants responded "I loved it when I visited and still do"; "In-state tuition, the beautiful area, the availability of undergraduate research, hands-on learning."; "Talking with Peter Dirks, the "homey" feeling, the personalities of the professors I met"; "The College of Agricultural Sciences offers horticulture and the staff seemed very caring and kind."; "Speaking with Dr. Atkinson when I came to visit SIU, and learning about SIU's philosophies for teaching their students to be successful."; "It is one of the best agricultural schools around and I have friends and family that are down here with me." "The College of Ag people were more personable than the ACES people at U of I"; "I knew many individuals that attended SIU who enjoyed it and I heard much about the Ag education program."; "I wanted to further my education I received at community college and they have a good ag program that I've had friends and teachers attend."

From an Animal Science Student: "I chose SIU Ag. Sciences because of how informative the Dean and Dr. Atkinson were at my college visit. They informed me that if you are not cut out for the job you're working towards, they'll let you know. Additionally, they will help you to find a new path. The way they care about their students' success says a lot."

From a Forestry Student: "Well, first of all it's in Illinois and that is where I am from.

Second, not too many colleges or universities offer forestry as a major, so SIUC was highly recommended. Third, I did not need a second language as a requirement whereas most other universities do. Fourth, SIUC is very close to the train station, so going home will be easy. Fifth, I wanted to go somewhere in the country and not in the city, since I love trees and breathing. I couldn't really take forestry classes in the city anyways. Six, SIUC is very close to many National Parks, which I want to work at one someday. Seven, all they (SIUC) cared about was me being a student and succeeding. Finally, I chose SIUC College of Agricultural Science because when I visited everyone was so nice and helpful instead of just taking me around campus in a tight schedule (which every other university I visited did). SIUC College of Agricultural Science (Patti) helped me with figuring out where I belonged at SIU. In other words helped me decide my career goals and helped me with a lot more! Thanks SIUC College of Agricultural Science! I would not be a college student if it wasn't for you!!!"

For Question 2: "Has your transition from High School/Community College been a smooth one, in regards to transcript processing, housing, advisement, and the financial aid process? If not, what were issues you came upon?" Forty-nine of the respondents, most of the students, responded that yes, the transition from High School or Community College to SIU was a smooth one or mostly smooth. Five students responded no, due to difficulties with the Financial Aid Process, and two, with being unfamiliar with the area. Both instances are out of the control of the COAS. Four responses were no, due to the fact of transferring issues (Dual Credit and Community College credits). Two students responded no, due to the fact that they did not know anyone in the first week. Those responses are likely to change as the year goes by. A few "No" responses were worth mentioning, due to the fact that the COAS can keep these in mind to

provide information to prevent further confusion or difficulties. “My transition was mostly smooth. The only hurdle was that as an Ag Education major that I did not know I needed to apply to the teacher education program which is in the college of education.” “Yes to certain degree. Transferring in from community college was not as smooth as it should have been. If SIU could come up with a better way to help get students at community college ready for SIU”.

For Question 20: "Could SIU College of Agricultural Sciences add anything to their curriculum/college that you would like to see/have available?” thirty-six students responded with just “no”, which is over half of the respondents. The other respondents had several suggestions of what to add, including: “More communication about classes that are required” More communication and less divisions” Three responses wished for “More internships and scholarships”. A few responses fell under the PSAS/CSEM curriculum category: “Improved mechanic facilities (2), A working wood shop, Help preparing to apply for applicator license, CDL, etc., More precision ag classes, Sustainability, Hydroponics, A minor in brewery science, Organic agriculture. “Campus maintenance- teaching how to maintain plants and helping the campus look nice at the same time”. A few responses fell under the ABE curriculum category: “There needs to be more hands on activities added to the Ag business curriculum for class instead of straight in class book learning”, Add an Agribusiness insurance classes, More marketing. As for the recruitment category: “I would have liked to have toured the farm during an open house when I visited SIU”. A student wanted the opportunity to have a Forestry minor. A few responses fell under the animal science category: Adding a Graduate Level Vet program (2), Wished for Goats or Sheep on the farms (2), Dairy Production, More focus specifically in small animal (2), “Shadowing veterinarians or volunteering at animal shelters near the college or

in other locations in Chicago or other places". A response that could fall under a couple different curriculum categories, and very interesting to the author, was "Classes or clubs on dog mushing, a class on how to survive in the wilderness with safety and with physical experiences". Some of the suggestions would be difficult to create, due to the lack of funding from the state of Illinois, but for certain departments, the curriculum could be evaluated by the faculty, staff, and current students, and discussions of improvement from the feedback.

It appeared clear, in general, that students were pleased in their experience with and selection of SIUC COAS.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

A review of the findings of this project led to the following conclusions. The recruitment and retention efforts at SIUC COAS are a group effort. The prestigious reputation of the COAS' programs and the excellent Faculty and Staff are the current first-year student's main reasons for electing to attend the COAS. Encouragement from parents, high school teachers, and the affordability of the COAS were the other large factors students mentioned on choosing the COAS. Established in 1955, with over sixty years of graduated students, the COAS is doing something right in terms of recruitment (SIU, 2015). The College of Agricultural Sciences puts in the effort to show for the success of the college.

Although the response rate of 34% is well below the established parameters of Babbie's (1990) suggested "good" response rate of 60% (Babbie, 1990; Sivo, Saunders, Chang, & Jiang, 2006), the data collected will still be useful for the COAS in evaluating their recruitment efforts.

Opportunities for open ended answers were provided. The suggestions from the responses could lead to recommendations for the COAS in the future. Further recommendations from the advisory committee for future recruitment studies are included.

Recommendations

Some students have responded that Agbassadors have not visited their schools. The Agbassador team's job is visiting high schools, community colleges, college fairs, and conventions and agriculture shows, but the team is not able to visit every single school in the state. However, as a recommendation,

- At the start of the year the team could assign locations (FFA sections, counties, their home area, etc.) to groups of Agbassadors and require the schools be contacted and visited, to optimize the locations (schools) visited to cover more schools in the state.

Considering all student respondents have attended a campus open house and/or tour, a recommendation is to:

- Continue to focus time, effort, and funding for open houses, tours, and COAS showcases.

Considering the student responses show the largest influence on their selection of SIUC COAS were parents and high school agriculture teachers, recommendations are to:

- Continue to encourage parents to accompany students on visits to campus/open houses.
- Create specific events for parents to visit campus- example such as a social, activity, or a meal. Could link event with an Agriculture Registered Student Organization.
- Continue to build relationships with high school agriculture teachers through recruitment visits to their schools.
- Continue to connect with teachers during high school student events held on campus.

There were responses that mentioned issues involving confusion on the agriculture education program and the transfer process.

- A recommendation is that the COAS can create a road map brochure or document tailored for Agricultural Education majors.
- Create a document for Transfer Students on the things to ensure are taken care of before they start at the COAS.

This study shows the results of how well the hard work and recruitment efforts of the COAS are working, and how to apply and maximize the results from the study to the college. Considering these conclusions, it is recommended that this study should continue, to keep up with the ever changing college student and the factors that influence college choice. A recommendation from the advisory committee, for when this study continues, is to include additional informative questions in the instrument, such as demographic questions. (Dr. Pense, Dr. Clemons, personal communication, 2017). Further research in the area of recruitment would be ideal; however, greater attention to survey design and response would increase the response rate. (Dr. Pense, Dr. Clemons, personal communication, 2017). Another recommendation is to research the opportunities to collect more student responses, perhaps by including the survey in student's course work requirements. Applying the contact of reserving a computer lab, and bringing students from class to take the survey in the early stages of the study is another recommendation. The study could grow to include all four years of undergraduate students, as well as other colleges within the university. Other possibilities for studies are comparing the COAS results to other Colleges of Agriculture/ Agriculture Sciences at other universities. The possibilities are endless on further and deeper studies in the topic of recruitment in undergraduate higher education. Evaluating recruitment practices will assist in the continued growth of the College of Agricultural Sciences at Southern Illinois University Carbondale.

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APPENDICES

APPENDIX A

Student Survey

Question 1: "The College of Agricultural Sciences offers all educational aspects I value in post-secondary education."

Question 2: "Has your transition from High School/Community College been a smooth one, in regards to transcript processing, housing, advisement, and the financial aid process? If not, what were issues you came upon?"

Question 3: "How did you first hear about SIU College of Agricultural Sciences?"

Question 4: "Did you initially visit SIU College of Agricultural Sciences through your High School or Community College?"

Question 5: "Did you initially visit SIU College of Agricultural Sciences through an FFA (The National FFA Organization) event?"

Question 6: "On a scale of 1 to 5, (1 being the least, 5 being the greatest) what was your high school/community college's perception of SIU College of Agricultural Sciences?"

Question 7: "Have you attended an SIU Open House and/or a College of Agricultural Sciences Tour/Showcase?

Question 8: "Do you have any family that have attended SIU College of Agricultural Sciences?"

Question 9: "Do you have any friends that have attended SIU College of Agricultural Sciences before you arrived at SIU College of Agricultural Sciences?"

Question 10: "Have you visited any friends/family near Carbondale before attending SIU College of Agricultural Sciences?"

Question 11: "Did you initially visit SIU College of Agricultural Sciences on your own? (Specifically, initially visited without a high school/community college sponsored trip)"

Question 12: "Have you had any SIU College of Agricultural Sciences Agbassadors visit your school?"

Question 13: "Have you spoke to and/or observed SIU Agbassadors at College/Career Fairs, FFA Conventions, and/or Farm Shows?

Question 14: "Have you received SIU College of Agricultural Sciences information in the mail, email, or both mail and email?"

Question 15: "On a scale of 1 to 5, (1 being the least, 5 being the greatest) what were your initial perceptions of the Carbondale Community and SIUC?"

Question 16: "Please rank in order which stakeholder had the largest influence on your decision in choosing SIUC College of Agricultural Sciences: Parent/Guardian, High School Teacher/Advisor, High School Guidance Counselor, Community College Teacher, if other, please specify."

Question 17: "Did you consider attending other universities/colleges before you chose SIU College of Agricultural Sciences? If yes, please list the universities/colleges."

Question 18: "Did the price of attending SIU College of Agricultural Sciences have a major influence on your choice?"

Question 19: "Did you receive a scholarship through SIU?"

Question 20: "Could SIU College of Agricultural Sciences add anything to their curriculum/college that you would like to see/have available?"

Question 21: "What were the primary factors that made you choose to attend SIU College of Agricultural Sciences?"

APPENDIX B

Research Request Email to Students

PERCEPTIONS AND ATTITUDES OF RECRUITMENT EFFORTS FOR UNDERGRADUATE ENROLLMENT IN SIUC COLLEGE OF AGRICULTURAL SCIENCES

Good Afternoon All,

My name is Lindsay Francis, a Plant, Soil, and Agricultural Systems Graduate Student. I also work as the Recruitment & Retention Graduate Assistant for the College of Agricultural Sciences. As the Recruitment & Retention Graduate Assistant, my research involves recruitment for the College of Agricultural Sciences. I received your email address from the College of Agricultural Sciences Dean's Office.

I invite you to participate in a research study entitled "Perceptions and Attitudes of Recruitment Efforts for Undergraduate Enrollment in SIUC College of Agricultural Sciences". I am currently enrolled in the Plant, Soil, and Agricultural System's Master's program at Southern Illinois University, and I am in the process of writing my Master's Thesis. The purpose of my research is to assist the College of Agricultural Sciences in seeing what the greatest return on their investment of time and resources in recruitment events are.

The enclosed survey has been designed to collect information on current College of Agricultural Science students, and what SIU recruitment events recruited them to this college.

Your participation in this research project is completely voluntary. You may decline

altogether, or leave blank any questions you don't wish to answer. Completion and return of this survey indicates voluntary consent to participate in this study. Participation is restricted to only students over 18 years of age. There are no known risks to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. Only group results will be presented or documented, not individual answers. Data from this research will be kept under lock and key and reported only as a collective combined total. No one other than the researcher, myself, will know your individual answers to this survey. I will take all reasonable steps to protect your identity.

If you agree to participate in this project, please answer the questions on the survey as best you can. It should take approximately 10-15 minutes or less to complete. Please return the survey as soon as possible by replying to this email. There will be no future emails if I receive no reply. After completion of the survey, eight randomly elected students, one from each major in the College of Agricultural Sciences, will receive an email to take part in a follow-up focus group. Participation is voluntary if randomly selected.

If you have any questions about this project, feel free to contact me, Lindsay Francis, at lindsayfrancis@siu.edu, or my faculty advisor, Dr. Seburn Pense, sebpense@siu.edu.

The link for the survey is found here.

Thank you for your assistance in this important endeavor.

Sincerely yours,

LINDSAY J FRANCIS

"This project has been reviewed and approved by the SIUC Human Subjects Committee.

Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Sponsored Projects Administration, Southern Illinois University, Carbondale, IL 62901-4709. Phone (618) 453-4533. E-mail [http:///h]siuhsc@siu.edu"

VITA

Graduate School

Southern Illinois University

Lindsay J. Francis

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Southern Illinois University Carbondale

Bachelor of Science, Agribusiness Economics, May 2015

Title: Perceptions and Attitudes of Recruitment Efforts for Undergraduate Enrollment in Southern Illinois University College of Agricultural Sciences

Major Professor: Seburn L. Pense