A COMPARISON OF EFFECTIVE RECRUITMENT METHODS OF IN-STATE AND OUT-OF-STATE STUDENTS IN THE DEPARTMENT OF AGRICULTURAL SCIENCES AT WEST TEXAS A&M UNIVERSITY

by

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ABSTRACT

The purpose of this descriptive study was to determine which of the current recruiting methods employed by the Department of Agricultural Sciences at West Texas A&M University are most effective in attracting in-state and out-of-state students. Chapman's Model of Student College Choice served as the theoretical framework for this study. The target population of this descriptive study was identified as undergraduate students enrolled in the Department of Agricultural Sciences as West Texas A&M University. In order to achieve the purpose of this study, data was collected via Qualtrics survey from students claiming a major within the Department of Agricultural Sciences. The instrument used in data collection was adapted from Wildman (1997). Relative to Chapman, the survey looked to measure student characteristics, external influences, and recruiting methods. A seven point Likert type scale, rank order, selections, and short answers were used to capture the data needed. Key external influences upon student college choice found in this study included on and off camp visits, personal conversation with departmental faculty and representatives, parents, and affordability of attendance. Recommendations were made toward collection of longitudinal data in this area as well as best practices to deal with the future growing population of both in-state and out-ofstate students.

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CHAPTER I

INTRODUCTION

As competition among universities intensifies, a need for thorough understanding of the student market is becoming more vital (Coccari and Javalgi, 1995). Recruitment strategies employed by a university are an important factor attracting and retaining enrollment numbers and maintaining the university's growth. The National Center for Educational Statistics (NCES, 2012) expects enrollment in postsecondary, degreegranting institutions to increase 15% between fall of 2010, the last year of actual data, and fall 2021.

The Department of Agricultural Sciences at West Texas A&M University has put a heavy emphasis on recruiting students. The university's recruitment strategies could be an important factor in attracting students and keeping enrollment numbers growing to a desirable level. The recruitment of prospective students is very important to a university as a whole and even the department. The Department of Agricultural Sciences seeks out hard-working, agriculture students who are eager to become involved within the department, whether they come from in-state or out-of-state. The department avidly works toward recruiting the best students nationwide in order to maintain competitive judging teams, successful students clubs, and sustain a worthy status of prepared and sought after graduates. Recruitment methods for the department take on many faces.

Some involved more time, money and effort than others. Examples of the department's current practices include: prospective student visits with faculty, high school visits, FFA and 4-H events, as well as the use of promotional items. When prospective students take a campus tour, a faculty member from the Department of Agricultural Sciences meets one-on-one with the student. This one-on-one time is utilized to discuss degree options, departmental clubs and teams, and answer questions the students or parents/guardians have about the department, degree information, or even campus life. Traveling to recruit prospective students is also a means of the department's recruitment methods. Places representatives travel varies but some frequently include FFA events, livestock shows, and high school classroom visits. Each involves different resources to make possible.

Statement of the Problem

The Department of Agricultural Sciences at West Texas A&M University has seen a large increase in out-of-state enrollment in recent years. It is believed this increase is in reference to recruitment efforts; however there is no data to support this conclusion. With no designated full-time recruitment position or team for the college or the department, the Department of Agricultural Sciences faculty, students, and staff at WTAMU has taken on the responsibilities to recruit prospective students nationwide.

The most precious resources being poured into recruitment methods are time and money. The department strives to recruit, retain and develop highly sought after students whom will enter the work force after graduation. There is a need to determine what methods work best when appealing to in-state and out-of-state students, in order to utilize departmental time and money in the most effective way possible. Also, there is a need to understand which techniques are too heavily emphasized and are resulting in an ineffective recruitment method.

The knowledge obtained from this study will help the department determine the most effective recruitment methods used to attract in-state and out-of-state students.

Purpose and Objectives

The purpose of this study was to determine which recruitment methods being used by the Department of Agricultural Sciences at West Texas A&M University are most successful and beneficial when appealing to both in-state and out-of-state students. Specific research objectives for this study included:

1. Identify the most effective recruitment methods employed by the Department

of Agricultural Sciences for attracting both out-of-state and in-state students.

2. Compare recruiting methods and university characteristics for attracting out-ofstate versus in-state students to the Department of Agricultural Sciences.

3. Identify major factors other than current recruiting methods which influence

attendance of students from out-of-state and in-state to the Department of

Agricultural Sciences.

4. Identify individuals who were influential to student's university choice.

5. Identify key demographic characteristics of participants within this study.

Definition of Terms

For this study, the following terms were defined in order to help the reader better understand the study.

<u>In-state student</u> – a student who graduated from a Texas high school.

<u>Out-of-State student</u> – a student who graduated from a high school outside of the state of Texas.

<u>Recruitment</u> – any method or strategy in which attracts students to enroll in the university.

<u>Recruitment Method</u> – any recruitment activity the Department of Agricultural Sciences at WTAMU used to recruit prospective students with the help of funding from the Agriculture Development Association.

<u>Agriculture Development Association (ADA)</u> – an association of alumni and supporters of the West Texas A&M University's Department of Agricultural Sciences, who serves as a resource and support system for the students faculty, and administration in the department.

<u>Department of Agricultural Sciences</u> – a department within the College of Agriculture and Natural Sciences at West Texas A&M University, whose focus is teaching and researching in areas related to the agriculture industry.

<u>First Generation College Student</u> –a student who is the first from their immediate family to enroll in and attend a university.

<u>Community College/Transfer Student</u> – a student who was previously enrolled in another college or university.

Limitations

This research was restricted to some limitations. The first was data from all undergraduate students who are working to complete their undergraduate degree from the Department of Agricultural Sciences were asked to participate. The census was limited to

722 students, and then limited by which students took the survey. A total of 235 students participated, making the response rate 32.54%.

Secondly, the researcher also acknowledged another limitation within the scope of the study. As participation was voluntary, an unequal representation from the different majors within the Department of Agricultural Sciences at WTAMU may occur.

As within many surveys, this research hinges on a questionnaire based on selfreported data. Many researchers have examined the reliability and credibility of selfreported data (Baird, 1976; Berdie, 1971; Pohlman and Beggs, 1974, Turner and Martin, 1984). Filson (2013) suggested self-reported data is usually affected by two issues. The first being the inability of the respondents to provide accurate information, which may be a result of students not having adequate experiences to solidify a decision in questions or statements, or simply students may not understand the question. The second issue being the unwillingness of respondents to provide accurate information, which represents the possibility students deliberately report incorrect information. Research has been used to show people generally tend to report accurately, with the exception of items which may be sensitive, or placed in an awkward or embarrassing position (Filson, 2013).

Self-reported data can be subject to the halo effect. The halo effect explains the opportunity for students to slightly inflate certain features or characteristics of behavior or performance. Pike (1999) found even though the halo effect exists, it is relatively constant across all types of students. This also implies even though students may report inaccurate information, the effect is consistent between students. This suggests the halo effect does not display an advantage or disadvantage to one group of students or another (Filson, 2013).

Assumptions

For this study, the researcher assumed the students who completed the survey answered the questions true and accurate. Also, it was assumed the participants were indeed undergraduate students enrolled in the Department of Agricultural Sciences at West Texas A&M University for the fall 2015 semester and all participants in the study understood the definitions and information provided in the instrument.

Significance of Study

The Department of Agricultural Sciences strives to recruit, retain and develop highly sought after students whom will enter the work force after graduation. Recruitment methods make up a major component of this goal. This study assesses each of the recruiting methods being used by the Department of Agricultural Sciences. This study will provide answers regarding the most effective recruitment methods being used by the Department of Agricultural Sciences to attract both in-state and out-of-state students. This study will supply the data needed to determine the effectiveness of each method the department implements in its recruitment and can potentially provide suggestions to restructure the recruitment efforts to be more effective and competitive with other universities.

By applying the knowledge gained from this study, the Department of Agricultural Sciences can take steps to increase student enrollment while running a highly efficient recruiting program. While this study is intended to improve the Department of Agricultural Sciences recruitment methods, it can also be useful to colleges and universities nation-wide by providing a knowledge-base to compare their own current methods.

CHAPTER II

REVIEW OF RELATED LITERATURE

Purpose and Objectives

The purpose of this study was to determine which recruitment methods are most effective for recruiting in-state and out-of-state students to the Department of Agricultural Sciences at West Texas A&M University. Specific research objectives for this study included:

1. Identify the most effective recruitment methods employed by the Department

of Agricultural Sciences for attracting both out-of-state and in-state students.

2. Compare recruiting methods and university characteristics for attracting out-ofstate versus in-state students to the Department of Agricultural Sciences.

3. Identify major factors other than current recruiting methods which influence attendance of students from out-of-state and in-state to the Department of Agricultural Sciences.

4. Identify individuals who were influential to student's university choice.

5. Identify key demographic characteristics of participants within this study.

Theoretical Framework

Chapmans' Model of Student College Choice is one of the most well-known models of recruitment of students into higher education institutions. Chapman's Model of Student College Choice (1981) shows two areas that influence a student's college choice which are student characteristics and external influences. Student Characteristics can be simplified into four factors; 1) socioeconomic status (SES), 2) level of educational aspirations, 3) aptitude and 4) high school performance. External influences can be broken into three categories that include: significant persons, fixed college characteristics, and college efforts to communicate with prospective student. Both student characteristics and external influences support the students' college choice as well as the students' general expectation of college life.



Figure 1 Chapman's Model of Student College Choice

Student Characteristics

As stated earlier, the four factors explaining student characteristics are: socioeconomic status (SES), level of educational aspirations, aptitude and high school performance.

Socioeconomic Status

Socioeconomic status is a reflection of a students' family income. Chapman (1981) specified students from homes with above average SES levels are more likely to attend a four-year institution than students from homes with average or below average SES levels.

Paulsen and St. John (2002) found 64% of participants chose a college because of low tuition, student aid or both, while more than half (54%) chose their college because it was close to work and because of their low living costs while attending college. In the same study, it was identified a higher percentage of low-income students aspired to complete only a vocational qualification or only some college, rather than an advanced degree. Titus (2006) found that 46% first-time, full-time, freshmen at the lowest SES quartiles completed college within six years after first enrolling in the same four-year institution, compared with 51% of those in the second quartile, 63% in the third quartile and 71% in the highest quartile. Students with low SES background have a lower attainment beyond a bachelor's degree, while student with higher SES backgrounds were more likely to earn a M.A., M.D., or J.D (Walpole, 2003). Another study by Carnevale and Rose (2003) found students with higher SES levels attended a high school was more successful in providing access to a higher education institution.

Level of Educational Aspirations

The level of education aspiration or expectation lends itself to not only what the person realistically believes they can accomplish but also their wishes and desires (Chapman, 1981). Students who come from families with higher income and college educated parents are more likely to go to college themselves. Leppel, Williams, and Waldauer (2001) found parental occupations have an impact on students' choice of major. This study found when both parents are in professional or executive occupations, female students are more likely to choose a science, engineering, or health-related major while male students are more likely to choose humanities or social science and, more precisely, business related degree.

Aptitude

Aptitude is the reflection of high school performance on aptitude tests associated with college entrance examinations. Chapman (1981) suggested when students self-select institutions in which they apply to, each institutions has other students with similar aptitude levels. Carnevale and Rose (2003) found families who expected their children to attend a four-year university were more likely to have their children take the SAT/ACT and were more likely to score higher when they did with students who had lower family expectations.

High School Performance

High school performance is often referred to in terms of GPA and class rank. Colleges and higher institutions clearly describe the admission requirements for a university. These admission requirements usually include high school GPA and class rank. In return, prospective students use this information to determine if they want to

apply to the college or university. Chapman (1981) believed as academic performance increased so did the encouragement from family, friends, and high school personnel which further influenced students' choice of college. With increased performance come increased opportunities for scholarships, another sources of influences in college choice (Williams, 2207).

Extracurricular Activities

Clubs and extracurricular activities were ranked eighth by participants as important factors to look at as incoming freshman (Shrestha, Suvedi, & Foster, 2011). In Dunn, Hains, and Epps (2013) more than half of the participants (91%) identified participation in extracurricular activities positively contributed to their college experience. Academic-related activities positively associated with a student's freshman year GPA (Bauer & Liang , 2003). When comparing participants in extracurricular activities to non-participants, participants who participated in extracurricular activities had a higher academic performance (Burris, S; Ashorn, L.J., Akers, C., Fraze, S., Brashears, T., and McCulloch, A., 2010). However, participants in extracurricular activities indicated they found it more challenging to balance academic and extracurricular activities.

4-H and FFA Experience

Park and Dyer (2005) stated college students who participated in secondary agriculture sciences and/or youth organizations were typically involved in similar organizations and experiences while in college. Moore and Brown (2005) also reported those student involved in secondary agriculture and FFA attended college fewer semesters and changed their majors less often which resulted in these student graduating

earlier. The study also identified those students had significantly lower, first semester GPA, semester average GPA and cumulative GPA than students without a secondary agriculture experience. However, Smith, Garton, and Kitchel (2010) stated a significant difference existed in the collegiate academic performance of students with prior secondary agriculture experience to those who did not have a secondary agriculture experience. Many researchers have concluded undergraduates who enrolled in high school agrisciences and participated in FFA and/or 4-H were more likely to complete their degree program than students who did not participate (Ball, Garton and Dyer, 2001; Cole & Bokor, 1989; Dyer et al., 1999; Dyer et al., 1996). Park and Dyer (2005) found one of the contributions former 4-H and FFA members make to a college of agriculture is the recruitment of new students.

External Factors

The three categories within the external influences are describes by Chapman (1981) are: the influences of a significant person, fixed college characteristics and college efforts to communicate with prospective students.

Chapman (1981) determined this model does not exhaust the possibilities of influence, but it does identify the major factors being considered. A students' college decision will not be based on one sole aspect of the model, but as a collective whole.

Significant Persons

Young adults often take opinions from significant people into consideration when selecting a college. These impacts come from comments, direct advice, as well as demonstration. Wildman and Torres (2001) found both college (7.5%) and high school (7.4%) friends are the least influential when selecting a college and major. Rayfield, Murphy, Skaggs and Shafer (2013) found similar findings in a Texas A&M University study; participants identified college (26.7%) and high school (33%) friends to also be one of the least influential on their college choice.

Chapman specified influences come from parents (43%). In the Texas A&M University study conducted by Rayfield et al. (2013), students identified the person who had the most influence on their decision to major in the College of Agriculture and Life Sciences were parents and guardians (18.1%). Wildman and Torres (2001) discovered students' personal role models (39%) were more influential than their parents/guardians (20%) in their college major. Other researchers agreed parents/guardians were the most influential individual when a student is selecting a college major (Harren et al., 2011, Cole & Thompson, 1999; Rayfield et al., 2013; Rocca, 2013).

Rayfield et al. (2013) found 59.9% of participants reported their high school principal or administrator were the least influential in their decision. Chapman (1981) found counselors (22%) and teachers (10%) we also the least influential in their decision.

Rayfield et al. (2013) identified those relatives in an agricultural or life sciences field of work to be very influential. In the 2001 study done by Wildman and Torres, the students' perception of a professional's influence in selecting a major ranked agriculture profession, extension professionals, high school science teachers and vocational agriculture teachers highest. Cole and Thompson (1999) declared high school agriculture science teachers should continue to be valued in the recruitment processes. They also stated extension professionals may have the greatest potential of providing additional

help with recruitment to agriculture sciences majors and colleges. Other high school staff and faculty members, such as teachers, counselors and principals were not as influential (Wildman and Torres, 2001).

Washburn, Garton, and Vaughn (2002) found students coming into contact with colleges of agriculture alumni could prove beneficial to students in the college information gathering stage.

Fixed College Characteristics

Fixed college characteristics are made up of cost, location, environment, and the availability of desired programs. These factors do not change with ease, thus influencing college choice (Chapman, 1981).

Cost

Cost of attendance is one of the leading influential factors of whether a student will attend a college (Chapman, 1981). Leslie and Brinkman (1988) and Heller (1997) estimate every \$100 increase leads to a decline in enrollment up to 1.00 percentage points. Cost is often reduced with financial aid, which is supposed to help reduce or eliminate the problem. Scholarships and financial aid were found to be a somewhat important factor by both Rocca and Washburn (2005) and Shrestha (2011). Hodges and Barbuto Jr., (2002) found financial aid to be one of the most influential factors when recruiting both rural and urban high school students. At Iowa State University, Scofield (1995) found scholarships came in fifth behind parent influence, current students, agriculture science teachers, and other family members for the level of influence to attend Iowa State University. Yet, Wildman and Torres (2001) found the factors ranked the

lowest in terms of level of influence were financial incentives and scholarships from the department.

Location

Location is also a direct influencing factor on a student's attendance to a university. Chapman (1981) found over 50% of entering freshmen attended colleges within 50 miles of their home, and 92% attend college within five hundred miles of their home. Students with high ability and no financial need consider a wider, more vast range of colleges and universities than those less able and in need of more financial assistance.

Availability of Programs

Chapman (1981) found students select a college in which they believe they can get the courses they need to enter graduate school or to get jobs. Burnaby, Howe, and Malgwi (2005) found interest in the subject is a very strong influence for both men and women. Their results indicated initial choice of a program came with the interest level of the subject.

College Efforts to Communicate with Students

Chapman (1981) stated students who expect to go to college are more apt to seek college information themselves. Efforts to communicate with students can take on many forms. When prospective students are ready to determine which college they will attend, they become highly interested in gaining detailed information about academic programs and social life on campuses (Hossler, 1999). Campus visits and opportunities to visit with faculty and learn more about campus life become important parts of the conversation process (Hossler, 1999). According to Hossler (1999) there are two guiding principles to the communication process with prospective students: personalization and timing.

Hossler's (1999) research shows the more personalized an admissions office can make the admissions process, the more positive the response will be from the student. In direct mail, telemarketing, campus visits, and all other forms of recruitment, students view the level of personalization as a form of courtship (Hossler, 1999). This form of courtship is a way for campuses to let students know "we would like to have you join us and spend some time here" (Hossler, 1999).

Sources of Information

Cartmell, Herren, and Robertson (2011) reported personal conversation with a professor, degree program information on a web site, printed university publications, College of Agricultural Sciences and Natural Resources (CASNR) publication, and the university web site information were other useful sources of information used by students. In the Shrestha (2011) study, results identified 31.8% relied on family and friends, 27.1% on university and college websites and 12.2% looked at printed materials. Many researchers agree printed materials are the top three sources of information for students (Cole and Thompson, 1999; Hoyt and Brown, 2003; Peiter et al., 2004; Robinson et al., 2007; Rocca and Washburn, 2005; Segler-Conrad et al., 2004). However, Rayfield et al. (2013) and Robinson et al. (2007) reported recruiting materials were not as influential in students' decision regarding college choice.

Shrestha (2011) found 5% received information from high school counselors, teachers and the faculty from Michigan State University's College of Agriculture and Natural Resources. Cartmell et al. (2011) reported the least useful sources of information were TV, radio, newspaper or magazine advertisements, participation in 4-H events on campus and visits to high schools by CASNR representatives.

The Rayfield et al., (2013) study at Texas A&M University found the only very influential factor was the Texas A&M University's internet sources about the students' major with a percentage of 12.7. Like the Texas A&M University study, many other researchers have discovered university and college websites are important sources of information in today's technology driven world (Hoyt and Brown, 2003; Butler et al., 2004; Rocca and Washburn, 2005; Shrestha et al., 2011).

The use of mobile phones is relatively new to recruiting and communicating with prospective students. Smartphones and tablets allow students to constantly stay connected to the web. In the 2015 E-Expectations Report issued by Ruffalo Noel Levitz, 40% of 2015 seniors checked their email or mobile device more than once a day. The report also shows seniors (86%) and juniors (89%) are using search engines to find college websites rather than entering the URLs directly. While texting is becoming more popular, 73% of seniors and 70% of juniors said they were willing to receive a text message from colleges, however only 29% of seniors and 10% of juniors have ever received a text message from a college.

Campus Visits

Cartmell II et al. (2011) found the most useful and most used sources of information was visiting the campus (87.6%). Other studies concurred with the conclusion campus visits are the most useful and great source of information (Cole and Fanno, 1999; Hoyt and Brown, 2003; Peiter et al., 2004; Robinson et al., 2007; Rocca and Washburn, 2005; Washburn et al., 2002). Cartmell et al. (2011) reported more than half of graduates use information from campus visits to make their college choice. Alike, Hesel (2004) agreed campus visits are the single most influential source of information

for students when choosing a college. Seeing facilities, talking to professors, and attending class made students more interested in the institution then in return became their first choice school (Hesel, 2004). Students participated in on-campus events while touring the campus ranked it at the 5th and 6th most useful sources of information for first time enrollees (Robinson et al., 2007). Cartmell et al. (2011) suggested institutions need to continue to increase opportunities to attract prospective students to campuses and strive to provide them with a positive experience and professors should be available to meet with the student.

Recruitment/Marketing

The marketing plan of a university or college, or efforts to communicate and identify prospective students can be highly influential to students' when choosing a college. Any marketing strategy begins with the activity of informing potential students of the strengths and marketable features of a university or college (Riesenberg, 1987). Recruitment encompasses many different avenues. Promotional items, high school visits, hosting events on campus, traditional printed recruitment materials and social media are the most used items by colleges and universities.

Promotional Items

Promotional materials are influential on students' college choice and play a role in the decision making process. The use of promotional items can be utilized as a marketing strategy by making prospective students aware of the university's and department's brand. Although promotional materials have not been found to be the most influential on a students' decision, the actuality is the more aware consumers are about a product and brand the more likely they are to purchase.

High School Visits

Visits from Oregon State University staff and agriculture ambassadors as well as extension or 4-H leaders were the least useful information (Cole and Thompson, 1999). Rayfield et al., (2013) also confirmed high school visits (48.4%) were one of the least influential items on a students' decision. In the 2013 Marketing and Student Recruitment Practices Benchmark Report for Four-Year and Two-Year Institutions publicized by Noel Levitiz, found high school visits by admissions representatives was 53.8% somewhat effective, however 98.8% of institutions are using this method.

Hosting of Events on Campus

Rayfield et al., (2013) examined the recruitment experiences may have influenced students' decisions to select a major in the College of Agriculture and Life Sciences at Texas A&M University. In this study 4-H or FFA career (45.3%) and leadership (42.7%) development events hosted on campus were ranked as the least influential recruitment experiences. Cole and Thompson (1999) completed a study at Oregon State University also confirmed 4-H/FFA activities on campus were not influential to students enrolling at a university. On the contrary, Rocca and Washburn (2007) found 75% of former FFA participants had participated in a student activity or event on campus while in high school. In the 2013 Marketing and Student Recruitment Practices Benchmark Report for Four-Year and Two-Year Institutions published by Noel Levitis, campus open house events (75.3%) and campus visit days for high school students (65.0%) were identified to be the most effective recruitment methods. The same study identified 95% of institutions are using both these methods to recruit students.

Printed Materials

Cartmell II et al. (2011) found printed materials are important sources of information; however prospective students are using web sites more often. One study took suggestions into consideration about printed materials including: making materials more graphically interesting through the use of bright colors, unique shapes and more visual elements, and to include easy-to-understand information about tuition, books, and housing (Armstrong & Lumsden, 2000). Other suggestions from the study were to include more pictures of classrooms, breakdown of prices per semester hour, and statistics (Armstrong & Lumsden, 2000). Boys and Espey (2012) suggested colleges of agriculture could positively influence recruitment methods by providing prospective students with improved information about the diversity of career opportunities within agriculture.

Social Media

Social media has opened new horizons for e-recruiting. YouTube and Facebook continue to lead the way as social media channels used by high school juniors and seniors, however, Snapchat has found itself in third with Instagram following in fourth (Levits, 2015). In the 2015 E-Expectations Report issued by Ruffalo Noel Levitz, 65% of seniors and 44% of juniors have looked at an institution's Facebook page, while 60% clicked "like". About 30-40% percent of junior and seniors reported viewing a college's YouTube page or related videos (Levits, 2015). Social media allow companies of all sizes and structures to engage in timely and direct end-consumer contact at relatively low cost and higher levels of efficiency than can be achieved with more traditional communication (Kaplan & Haenlein, 2010). Rayfield et al. (2013) recommended colleges

of agriculture should explore all means of social media in order to effectively communicate with potential students.

Enrollment

According to the National Center for Education Statistics (2015) enrollment of the 2013-2014 academic school year at West Texas A&M University was comprised of 88% in-state student, 10% out-of-state students and 2% foreign students. Mak and Moncur (2002) proved states with more degree-granting higher education institutions tend to have a lower rate of college-bound freshman enrolling in schools in other states. This study also proved states with low in-state tuition and fees tend to retain a higher percentage of their in-state college bound students.

Out-of-State Enrollment

Universities are more interested in their graduates being successful than on where their students come from or go after they graduate (Groen & White, 2004). One study suggested the income effect of tuition and college prestige is larger than the price effect of non-resident tuition variations across institutions and relatively low student-faculty ratio is expected to draw more out-of-state students (Mixon Jr. & Hsing, 1994). Nonresident students are oriented to institutions located in areas where the prospects for future employment are strong (Baryla Jr & Dotterweich, 2001). In 1998, 23.5% of New Mexico, 24% of Colorado, 29.7% of Wyoming and 12.9% of Oklahoma college bound freshman attended college out of their home state (Mak & Moncur, 2003). A growing number of states have implemented broad-based merit scholarships which provide free or reduced tuition at in-state institution to their high school graduates who have achieved grades above some minimum threshold (Selingo, 2001).

In-State Enrollment

A student's state of residence is determined by his or her permanent residence or the residence of the parents/guardians (Johns and Viehlan, 1989). Public institutions generally get most of their students from within their state (Alm & Winters, 2009). Many studies suggest financial aid and tuition predict the migration of students. One study suggested greater distance to the nearest university decreases the likelihood a student will attend a college or university, and, therefore, increases the likelihood he or she will attend a university (Alm & Winters, 2009).

Community College and Transfer Enrollment

Community college students must also be included in recruitment of prospective students as well. Horn, Peter, Rooney (2002) reported 42% of all undergraduates nationwide were enrolled in two-year community colleges in the 1999-2000 school year. Students transferring credit hours into a university ranked credit evaluation and transfer to be the third most important factor (Shrestha, 2011).

Selecting a College Major

Wildman and Torres (2001) identified three factors of students' perception of college factors influence selecting a major. These factors ranked: 1) faculty's friendliness in the department, 2) friendly atmosphere in the college of agriculture, and 3) teaching reputation of the department and teaching reputation of major's professor. All three of these factors were identified as somewhat influential to the majority of the students.

Academic reputation, quality of facilities, campus environment, and scholarship were agreed upon by other researchers these factors were all influential characteristics for choosing a college (Cartmell II, Herren, & Robertson, 2011). Other researchers' results

prove two of the most important factors influencing college choice are the institutional reputation and the academic program characteristics (Chapman, 1981; Hodges and Barbuto, Jr., 2002; Hoyt and Brown, 2003; Pratt and Evens, 2002; Robinson et al., 2007; Rocca and Washburn, 2005; Washburn et al., 2002). In a study completed by Cartmell II et al. (2011), Oklahoma State University students identified opportunities after graduation were the most influential institutional characteristic. The same study found quality and reputation of courses and faculty to be desirable characteristics.

Rocca and Washburn (2007) reported class size was more important to students coming directly from high school than those transferring from a community college. Shrestha (2010) reported class size ranked 10th for students entering the college of agriculture and natural resources. Although in other studies, class size was one of the least important factors for future agriculture majors (Robinson et al., 2007; Rocca and Washburn, 2007; Washburn et al., 2002).

CHAPTER III

METHODOLOGY

Purpose and Objectives

The purpose of this study was to determine which recruitment methods are most effective for recruiting in-state and out-of-state students to the Department of Agricultural Sciences at West Texas A&M University. Specific research objectives for this study included:

 Identify the most effective recruitment methods employed by the Department of Agricultural Sciences for attracting both out-of-state and in-state students.
 Compare recruiting methods and university characteristics for attracting out-ofstate versus in-state students to the Department of Agricultural Sciences.
 Identify major factors other than current recruiting methods which influence attendance of students from out-of-state and in-state to the Department of Agricultural Sciences.

4. Identify individuals who were influential to student's university choice.

5. Identify key demographic characteristics of participants within this study.

<u>Design</u>

The researcher used a descriptive survey research method for this study. This method was used to describe the effectiveness of recruitment efforts on a students' college choice. This was measured by students ranking and indicating the importance of specific recruitment factors and the influence it had on them. In turn, the data collected from the survey was used to develop a better understanding of what methods are most successful for recruiting both in-state and out-of-state students to the Department of Agricultural Sciences at West Texas A&M University.

Population

The target population of this study consisted of all undergraduate students in the Department of Agricultural Sciences at West Texas A&M University currently enrolled in the Fall 2015 semester. Potential participants were identified from a data specialist at WTAMU. The frame was obtained September 25, 2015, via spreadsheet shared by e-mail from the information specialist. The frame contained only e-mail addresses for the population consisting of 722 students.

<u>Instrument</u>

The survey instrument was created as a tool to determine recruiting techniques students were exposed to and how influential they were on choosing to enroll in the Department of Agricultural Sciences at WTAMU. The instrument was adapted from Chapman's (1981) Model of Student College Choice and Wildman and Torres' (2001) study of factors identified when selecting a major in agriculture.

The survey instrument was separated into seven sections and was completed on a voluntary basis by the students whom received an email with the survey link. Section one
identified student demographics. Age, gender, ethnicity, family income, current major, and participation in student activities and organizations were acquired.

Section two of the instrument was comprised of questions to determine the students' first exposure and experience with the Department of Agricultural Sciences at WTAMU. These experiences included campus visits, various livestock shows attended by a departmental representative, FFA events, 4-H events, and visits with a faculty member from the Department of Agricultural Sciences. The answers were based either a 'yes' or 'no' selection or a seven-point Likert scale as well as open ended questions. The descriptors of the seven-points of effectiveness were as follows (1) very ineffective, (2) ineffective, (3) somewhat ineffective, (4) neither effective or ineffective, (5) somewhat effective, (6) effective, (7) very effective.

Section three of the survey instrument was comprised of questions regarding how effective recruiting factors and promotional paraphernalia were in the students' decision to pursue an agriculture degree within the Department of Agricultural Sciences at WTAMU. The answers were a combination of 'yes' or 'no' selection, selection of all applicable, and a seven-point Likert scale, with an option of 'did not receive'. The descriptors of the seven points of effectiveness on their decision to attend WTAMU were as follows: (1) very ineffective, (2) ineffective, (3) somewhat ineffective, (4) neither effective or ineffective, (5) somewhat effective, (6) effective, (7) very effective.

Section four of the instrument was aimed to capture background experiences of survey participants relative to their selection of this state university and program of agricultural sciences and their current involvement with the Department of Agricultural

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Sciences. The answers were combinations of open ended questions as well as a selection of all applicable.

Section five of the survey instrument was targeted towards identifying the influence of major factors other than current recruiting methods which influence attendance of students from out-of-state and in-state in the Department of Agricultural Sciences. The answers were based on a seven point Likert scale as well as ranking order. The descriptors for the seven point Likert scale were: (1) very bad, (2) bad, (3) poor, (4) neither good nor bad, (5) fair, (6) good and (7) very good.

Section six of the survey instrumented sought to identify individuals who were influential to a students' university choice. Students were asked to rank (1-11) how influential a person was on their decision to attend the Department of Agricultural Sciences at WTAMU. When ranking each items students were made aware that (1) was the most influential and (11) was the least influential.

Finally, the last section of the instrument was targeted towards students who are interested in changing either their current major or transferring to another university. Answers were a combination of selections and opened ended.

Validity and Reliability

Once the survey was developed, it was reviewed and edited by a panel of experts from the Department of Agricultural Sciences at WTAMU. Changes were made based on recommendations from the panel. The Institutional Review Board (IRB) required a review of the survey. It was approved on September 25, 2015.

To check for reliability of the scale questions in the survey, Cronbach's Alpha was calculated (.906) post hoc for all Likert type scale items. This statistic shows the survey was a reliable instrument and there was consistency in the questions answered. Cronbach's alpha is a numerical coefficient of reliability to determine if the variable derived from the test instrument provided stable and reliable responses over a repeated administration of the tests (Reynaldo and Santos, 1999). Alpha is expressed as a number between 0 and 1, with a higher number correlating to more accurate results (Tavakol and Dannick, 2011).

The researcher chose to survey the population for several reasons. First semester freshman and first semester transfer students were more familiar with the current recruiting methods being used to attract them to the university and department. Community college transfers usually come in as college juniors; by surveying all undergraduate students all transfer students were included in the population.

Data Collection

The instrument was reviewed and approved by the university's Institutional Review Board (IRB). The target population was informed their involvement in the study was completely voluntary, following the university's IRB protocol. Participants were informed their provided responses would remain confidential and only summarized data will be reported in order to protect the identity of each individual respondent. The population was given contact information for the researchers and the university's IRB for any follow up questions about their participation in the study.

The survey was developed in Qualtrics and sent via e-mail to 722 possible participants who were classified as undergraduate students from the Department of Agricultural Science. E-mail addresses were attained from a data specialist at WTAMU. The first email requesting students' participation was sent September 28, 2015. Four

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follow-up e-mails were sent to students on October 5, October 12, and October 19, 2015. Each e-mail boasted a unique "Subject" and content. It was stated no compensations would be given for participation. A total of 235 surveys were completed and submitted.

Data was collected using Dillman's (2000) tailored design methods, modified to fit this particular situation. The study utilized three of the five parts: (1) respondent friendly questionnaire, (2) up to five contacts with the participants, and (3) personalized correspondence, no incentives were offered and since surveys were completed online there was not a self-addresses, stamped envelope included.

Data Analysis

Data was exported from Qualtrics to a Microsoft Excel document. If a participant selected 'did not receive' as an answer to a survey questions, the respected answer was replaced with a period in order for data to be analyzed. Data from this survey was analyzed using SPSS statistical package 2.2 and SAS 9.4 on a PC operating platform. Descriptive statistics, frequencies, and percentages were used to summarize data.

CHAPTER IV

RESULTS AND FINDINGS

Purpose and Objectives

The purpose of this study was to determine which recruitment methods are most effective for recruiting in-state and out-of-state students to the Department of Agricultural Sciences at West Texas A&M University. Specific research objectives for this study included:

1. Identify the most effective recruitment methods employed by the Department of Agricultural Sciences for attracting both out-of-state and in-state students.

2. Compare recruiting methods and university characteristics for attracting out-ofstate versus in-state students to the Department of Agricultural Sciences.

3. Identify major factors other than current recruiting methods which influence attendance of students from out-of-state and in-state to the Department of Agricultural Sciences.

4. Identify individuals who were influential to student's university choice.

5. Identify key demographic characteristics of participants within this study.

Findings Related to Objective One

The first objective of this research was to describe the most effective recruitment methods employed by the Department of Agricultural Sciences for attracting both out-ofstate and in-state students. Representatives from the Department of Agricultural Sciences travel too many places and events, meet with many prospective students, and give out many different promotional items.

Participants were asked about different sources of information which connected them to the Department of Agricultural Sciences and how effective those sources were in their decision to attend this state university. All items were measured utilizing a sevenpoint, Likert-type scale. Table 4.1 illustrates these findings for in-state participants and Table 4.2 illustrates findings for out-of-state participants. For both in-state (M=5.48, SD=1.04) and out-of-state (M=5.84, SD=1.27) participants, having a personal conversation with a Department of Agricultural Sciences professor on campus was the most effective connection. Following closely behind is a personal conversation with a Department of Agricultural Sciences representative for both in-state (M=5.34, SD=0.88) and out-of-state (M=5.69, SD=1.42). The least effective connections for the in-state group was having a Department of Agricultural Sciences representative at their high school (M= 4.29, SD=0.67); TV, radio, newspaper, magazine, or other advertisement about the Department of Agricultural Sciences (*M*=4.30, *SD*=0.65); and Department of Agricultural Sciences social media (M=4.36, SD=0.57). For out-of-state participants, the least effective connections were having a Department of Agricultural Sciences representative at their high school (M=3.86, SD=0.99); Department of Agricultural Sciences social media (M=3.98, SD=0.95); and Participation in an on campus recruitment program (*M*=4.21, *SD*=0.80).

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Table 4.1 Effectiveness of Department of Agricultural Scie	nces Soi	urce of 1	nforma	tion on l f	n-State	Particiț	oants' C	ollege	Choice
	IV	Г	IS	Z	SE	त्म	VE	≍́	SD
Personal conversation with a Dept. of Agricultural Sciences professor on campus	10	2	2	30	15	26	62	5.48	1.04
Personal Conversation with a Dept. of Agricultural Sciences representative	6	4	4	36	16	28	51	5.34	0.88
Participation in student activity events on campus	∞	2	4	43	15	22	53	5.27	0.90
Letter and/or information received in the mail from the Dept. of Agricultural Science	7	4	4	44	26	33	29	4.99	0.63
Dept. of Agricultural Sciences website	10	S	S	49	23	31	21	4.72	0.58
Dept. of Agricultural Sciences printed publications	13	S	4	47	23	32	20	4.65	0.58
Participation in an on campus recruitment program	13	S	7	57	16	21	23	4.50	0.59
Dept. of Agricultural Sciences Social Media	13	8	7	60	18	21	18	4.36	0.57
TV, Radio, Newspaper, Magazine, or other Advertisement about the Dept. of Agriculture Sciences	14	6	S	67	14	23	14	4.30	0.65
Dept. of Agricultural Sciences representative at your high school	16	Γ	S	66	9	15	23	4.29	0.67
<i>Note</i> : VI (Very Ineffective); I (Ineffective); SI (§ (Somewhat Effective); E (Effective); VE (Very]	Somewh: Effective	at Ineffe 2).	ctive);	N (Neith	ıer Effec	tive no	r Ineffe	ctive); ;	SE

Table 4.2

Effectiveness of Department of Agricultural Sciences Source of Information on Out-of-State Participants' College Choice

				f					
	VI	Ι	SI	N	SE	Е	VE	Μ	SD
Personal conversation with a Dept. of Agricultural Sciences professor on campus	1	0	1	10	1	9	22	5.84	1.27
Participation in student activity events on campus	3	0	2	26	9	2	1	5.69	1.42
Personal Conversation with a Dept. of Agricultural Sciences representative	2	0	1	8	6	9	17	5.58	0.99
Dept. of Agricultural Sciences website	1	0	3	12	15	8	5	4.91	0.65
Letter and/or information received in the mail from the Dept. of Agricultural Science	2	0	3	12	10	13	3	4.84	0.69
Dept. of Agricultural Sciences printed publications	3	0	2	19	12	5	2	4.40	0.70
TV, Radio, Newspaper, Magazine, or other Advertisement about the Dept. of Agriculture Sciences	2	0	2	28	4	5	2	4.28	0.91
Participation in an on campus recruitment program	3	1	2	24	5	7	1	4.21	0.80
Dept. of Agricultural Sciences Social Media	3	1	2	28	4	4	0	3.98	0.95
Dept. of Agricultural Sciences representative at your high school	3	2	3	30	2	1	2	3.86	0.99

Note: VI (Very Ineffective); I (Ineffective); SI (Somewhat Ineffective); N (Neither Effective nor Ineffective); SE (Somewhat Effective); E (Effective); VE (Very Effective).

On Campus visits are an important step in the recruitment process. However, off campus visits, such as stock shows, and visits at 4-H and FFA events, like District 1 4-H Round Up ad FFA Career Development Events, with departmental representatives are also very vital to recruiting new students to the Department of Agricultural Sciences. Table 4.3 illustrates the frequencies and percentages of participants who had on and off campus visits as well as visits at 4-H or FFA events. Majority of both in-state (n=104, 61.5%) and out-of-state (n=30, 61.2%) participants made an on campus visit prior to enrolling in the Department of Agricultural Sciences.

Table 4.3Types of Visits Participants Encountered

	In- (n=	state =169)	Out-c (n=	f-state =49)
	f	(%)	f	(%)
On Campus	104	61.5	30	61.2
Off Campus	45	26.8	8	16.3
4-H or FFA Event	79	46.7	2	4.1

Table 4.4 represents the effectiveness of these visits for in-state participants and table 4.5 represent the effectiveness of these visits for out-of-state participants. For instate participants, on campus visits were the most effective (M=5.50, SD=1.13), while the least effective was off campus visits (M=4.82, SD=0.67). On campus visits were also the most effective for out-of-state students (M=5.55, SD=1.01), while 4-H and FFA events visits were the least effective (M=3.77, SD=1.21).

Table 4.4	
Effectiveness of Visits on In-State Participants'	College Choice

				f					
	VI	Ι	SI	Ν	SE	Е	VE	M	SD
On Campus Visit	15	2	1	25	10	31	69	5.50	1.13
4-H or FFA event	13	5	3	47	10	26	45	4.97	0.79
Off Campus	11	3	5	51	15	23	33	4.82	0.67
Note: VI(Very	Ineffec	tive); I	(Ineffect	tive); SI	(Somew	hat Inef	fective);	N (Neith	ner

Effective or Ineffective); SE (Somewhat Effective); E (Effective); VE (Very Effective); DNR (Did not Receive).

Table 4.5Effectiveness of Visits on Out-of-State Participants' College Choice

				f					
	VI	Ι	SI	Ν	SE	Е	VE	Μ	SD
On Campus Visit	4	0	1	5	6	13	18	5.55	1.01
Off Campus	2	0	1	29	2	5	2	4.24	1.01
4-H or FFA event	3	2	0	32	0	2	0	3.77	1.21

Note: VI(Very Ineffective); I (Ineffective); SI (Somewhat Ineffective); N (Neither Effective or Ineffective); SE (Somewhat Effective); E (Effective); VE (Very Effective); DNR (Did not Receive).

Participants were asked what events prior to being a student within the

Department of Agricultural Sciences brought them to campus. Table 4.6 represents the

frequencies and percentages for each event(s) participants' identified they attended. For

in-state participants FFA events (n=84, 49.7%) was the most attended event on WT's campus prior to participants being a student. Following was athletic events with a frequency of 22 (13.0%). Out-of-state participants said athletic camps were the most attended event prior to participants being a student. FFA Events (n=5, 10.2) and Athletic Events (n=5, 10.2) followed closely behind. In-state participants identified feedlot camp (n=3, 1.8%) was the least attended event on campus they attended prior to being a student on campus. 4-H events (n=0, 0.0%), UIL Events (n=0, 0.0%), and band camp (n=0, 0.0%) where all the least attended event on WTAMU's campus by out-of-state participant prior to being a student.

Table 4.6.

	 In- (n=	state 169)	Out-of- (n=4)	state 9)
Event	f	(%)	f	(%)
FFA Events	84	49.7	5	10.2
Athletic Events	22	13.0	5	10.2
Athletic Camps	15	8.9	6	12.2
4-H Events	19	11.2	0	0.0
UIL Events	15	8.9	0	0.0
Band Camp	4	2.4	0	0.0
Feedlot Camp	3	1.8	1	2.0

Promotional paraphernalia also serves a marketing purpose to promote the Department of Agricultural Sciences at WTAMU. These materials include: departmental caps, drawstring bags, pens, key chains, sticky notes, sunglasses, and the departmental newsletter, *The Brand*. Figure 2 represents the percentage of in-state participants and Figure 3 represents the percentage of out-of-state participants received any paraphernalia from the Department of Agricultural Sciences prior to enrolling at WTAMU. For in-state participants, 51% (n=85) identified they had received some promotional paraphernalia from the Department of Agricultural Sciences, while 49% (n=83) said they did not received any promotional paraphernalia. 55% (n=27) of out-of-state participants said they had received any promotional paraphernalia.





Figure 3. Percentage of Out-of-State Participants Received Promotional Paraphernalia



Participants were asked to determine the influence of promotional paraphernalia by using a seven- point, Likert-type scale. Table 4.7 and 4.8 display how influential promotional paraphernalia were on a participants' decision to attend the Department of Agricultural Sciences at WTAMU. For in-state participants, receiving a cap was the most effective (M=5.18, SD=0.81). The least effective promotional item for in-state participants was sticky notes (M=4.20, SD=0.48). Out-of-state participants identified receiving a copy of *The Brand* was most effective (M=4.67, SD=0.80), while the least effective item was a key chain (M=3.81, SD=0.91).

Table 4.7Effectiveness of Receiving Promotional Paraphernalia on In-State Participants'College Choice

				f						
	VI	Ι	SI	Ν	SE	Е	VE	DNR	Μ	SD
Cap	3	4	5	16	5	17	23	6	5.18	0.81
Drawstring bag	4	5	4	21	8	15	12	7	4.70	0.56
Sunglasses	4	5	4	15	6	7	12	14	4.57	0.56
The Brand	4	4	2	15	7	4	8	17	4.39	0.54
Key Chain	2	5	6	17	7	5	10	11	4.21	0.46
Sticky Notes	5	5	4	19	9	5	7	13	4.20	0.48

Note: VI(Very Ineffective); I (Ineffective); SI (Somewhat Ineffective); N (Neither Effective or Ineffective); SE (Somewhat Effective); E (Effective); VE (Very Effective); DNR (Did not Receive).

				f						
	VI	Ι	SI	Ν	SE	Е	VE	DNR	Μ	SD
The Brand	1	1	0	7	0	3	3	7	4.67	0.80
Cap	1	3	0	9	1	3	5	3	4.59	0.71
Drawstring bag	1	5	0	12	3	1	4	1	4.15	0.66
Sunglasses	1	1	0	9	0	2	1	7	4.14	0.93
Sticky Notes	3	1	0	7	3	1	1	6	3.81	0.61
Key Chain	2	1	1	10	0	0	2	6	3.81	0.91

Table 4.8Effectiveness of Receiving Promotional Paraphernalia on Out-of-State Participants'College Choice

Note: VI (Very Ineffective); I (Ineffective); SI (Somewhat Ineffective); N (Neither Effective or Ineffective); SE (Somewhat Effective); E (Effective); VE (Very Effective); DNR (Did not Receive).

Findings Related to Objective Two

Objective two sought to compare selected recruiting methods and university characteristics which attract out-of-state and in-state students to the Department of Agricultural Sciences.

Figure 4 compares the means of on campus, off campus, and 4-H or FFA event visits on in-state and out-of-state participants' decision to attend the Department of Agricultural Sciences. For both in-state (M=5.50) and out-of-state (M=5.55) on campus visits were very effective on their decision to enroll in the Department of Agricultural Sciences. For off campus visits in-state (M=4.82) and out-of-state (M=4.24) was slight lower than on campus visit, and appeared to be more effective for in-state participants. Visits at 4-H and FFA events for in-state (M=4.97) and out-of-state (M=3.77) appear to show that these visits are more effective for in-state participants than they are for out-of-state participants.

Figure 4 Effectiveness of Visits on Participants' College Choice



Promotional paraphernalia are common items used to gain prospective students' attention when recruiting. Figure 5 compares the means of the various different promotion items the Department of Agricultural Sciences offers out when recruiting prospective students.

Caps are a common recruiting method used by the Department of Agricultural Sciences. They are handed out at almost every event attended by the Department of Agricultural Sciences. Figure 5 represents the comparison of both groups' effectiveness on receiving a departmental cap prior to attending the Department of Agricultural Sciences at WTAMU. In-state (M=5.18) participants identified that receiving a cap was

very effective on their decision to attend the Department of Agricultural Sciences at WTAMU and had a higher mean than out-of-state (M=4.59).

Sunglasses are also used as a promotional item at trade-shows. In-state (M=4.57) participants had a higher mean related to the effectiveness of receiving this item on their decision to attend the Department of Agricultural Sciences than out-of-state (M=4.14) participants.

Students who visit campus through an official campus tour receive a drawstring bag upon their arrival to the Department of Agricultural Sciences. Figure 5 shows the mean of how participants rated the effectives of receiving a drawstring bag on their decision to attend WTAMU. In-state (M=4.70) participants had a higher mean related to the effectiveness of receiving this item on their decision to attend the Department of Agricultural Sciences than out-of-state (M=4.15) participants.

When a student is receiving a drawstring bag, they also receive the Department of Agricultural Sciences annual newsletter, *The Brand*. *The Brand* is also handed out at trade shows and many other events attended by the Department of Agricultural Sciences. Figure 5 illustrates means of how participants rated the effectiveness of receiving a copy of *The Brand* on a decision to attend WTAMU. Out-of-state (M=4.67) participants had a higher mean related to the effectiveness of receiving this item on their decision to attend the Department of Agricultural Sciences than in-state (M=4.39) participants.

Sticky notes are also used as promotional paraphernalia and are handed out at trade shows. They are also in the drawstring bags prospective students receive on their official campus tour. Figure 5, again, illustrates the means of how participants rated the effectiveness of receiving sticky notes on a decision to attend WTAMU. In-state

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(M=4.20) participants again, had a higher mean related to the effectiveness of receiving this item on their decision to attend the Department of Agricultural Sciences. However, this item has the lowest mean of all promotional paraphernalia items. Out-of-state (M=3.81) participants had the same mean related to the effectiveness of receiving sticky notes and a key chain.

Lastly, key chains are used as handouts at trade shows to prospective students. Figure 5 exhibits the means of how participants rated the effectives of receiving a key chain on their decision to attend WTAMU. In-state (M=4.21) participants had a higher mean related to the effectiveness of receiving this item on their decision to attend the Department of Agricultural Sciences than out-of-state (M=3.81) participants. However, key chain ties with sticky notes as having lowest means for out-of-state participants.



Figure 5 Effectiveness of Promotional Paraphernalia on Participants' College Choice

Sources of information are vital to the Department of Agricultural Sciences awareness. Figure 6 expresses the means of how participants rated the effectiveness of the different sources of information the Department of Agricultural Sciences utilizes in the recruitment process.

Out-of-state participants that have a higher mean related to the effectiveness of different sources of information on their decision to attend the Department of Agricultural Sciences that are greater than those indicated by in-state participants are: personal conversation with a Department of Agricultural Sciences professor on campus (M=5.84), participation in student activity event on campus (M=5.69), personal conversation with Department of Agricultural Sciences representative (M=5.58), and the Department of Agricultural Sciences website (M=4.91).

For in-state participants, the sources of information that have higher means related to the effectiveness of this item on their decision to attend the Department of Agricultural Sciences that are greater than those indicated by out-of-state participants are: Department of Agricultural Sciences printed publications (M=4.65), Participation in on campus recruitment programs (M=4.50), Department of Agricultural Sciences social media (M=4.36), TV, Radio, Newspaper, Magazine or other advertisements about the Department of Agricultural Sciences (M=4.30), having a departmental representative at high school (M=4.29), and receiving a letter or any information in the mail from the Department of Agricultural Sciences (M=4.99).



In-State Out-of-State

Figure 7 illustrates the comparison of means between in-state and out-of-state participants responses of the effectiveness of university factors on their college decision. According to Chapman, cost of attendance is one of the leading influential factors of whether students will attend a college (1981). Figure 7 demonstrates the means of how participants rate the type of influence low tuition had on their decision to enroll at WTAMU. Out-of-state (M=6.37) participants identified a higher mean than in-state (M=5.98) participants.

Student fees also play a role in cost upon enrollment. Figure 7 also illustrates the means of how participants rated the type of influence low student fees plays on their decision to enroll at WTAMU. Out-of-state (M=6.47) participants identified a higher mean than in-state (M=5.84) participants did.

Chapman (1981) also identified location as a vital aspect of the college enrollment process. Figure 7 displays the means of how participants ranked the type of influence a longer distance from home has on their decision to attend and enroll in the Department of Agricultural Sciences at WTAMU. When compared, in-state (M=4.95) participants had a higher mean for shorter distance from home than out-of-state (M=4.24) participants. However, when comparing a longer distance from home, out-of-state (M=4.65) participants had a higher mean than in-state (M=4.45) participants.



Figure 7 Influence of University Factors on Participants' College Choice



Findings Related to Objective Three

Objective three's purpose was to identify major factors other than current recruiting methods, such as university and departmental characteristics, which influence attendance of students from out-of-state and in-state to the Department of Agricultural Sciences. Table 4.9 illustrates the type of influence university characteristics have on the in-state participants' decision to enroll in the Department of Agricultural Sciences, and Table 4.10 displays the type of influence university factors have on out-of-state participants.

For in-state participants small class size (M=6.29, SD=1.42), followed by low tuition (M=5.98, SD=1.21), and low cost in student fees (M=5.81, SD=1.02) all have a

very good influence on their decision to enroll in the Department of Agricultural Sciences. However, prominence of university athletic teams (M=4.37, SD=0.80), longer distance from home (M=4.45, SD=0.69), and shorter distance from home (M=4.95, SD=0.66) all have the least influence on their decision to enroll in the department.

Out-of-state participants identified low cost in student fees (M=6.47, SD=1.58); low tuition (M=6.37, SD=1.54); and small class size (M=6.21, SD=1.31) all have a very good influence on their decision to enroll in the Department of Agricultural Sciences. However shorter distance from home (M=4.24, SD=1.00); prominence of university athletic teams (M=4.59, SD=1.07); and longer distance from home (M=4.65, SD=0.82) all have the least influence on their decision to enroll in the Department of Agricultural Sciences.

				f					
	VB	В	Р	Ν	F	G	VG	Μ	SD
Small class Size	1	0	0	10	10	50	79	6.29	1.42
Low Tuition	4	1	4	9	18	47	69	5.98	1.21
Low cost of student fees	5	0	5	14	17	53	57	5.81	1.08
Prestige of University	3	1	2	22	16	60	45	5.73	1.02
Campus Safety and Security	1	1	1	42	17	45	43	5.53	0.86
Low cost of room and board	9	2	14	37	20	35	33	4.96	0.62
Shorter distance from home	10	4	7	44	20	28	37	4.95	0.66
Longer Distance from home	9	3	9	74	16	16	20	4.45	0.69
Prominence of university athletic teams	6	2	11	87	11	19	13	4.37	0.80

Table 4.9Influence of University Factors on In-State Participants' College Choice

Note: VB (Very Bad), B (Bad), P (Poor), N (Neither Good nor Bad), F (Fair), G (Good), VG (Very Good)

				f					
	VB	В	Р	Ν	F	G	VG	M	SD
Low cost of student fees	0	0	0	1	4	12	26	6.47	1.58
Low Tuition	0	1	0	1	3	13	25	6.37	1.54
Small class Size	0	0	0	4	3	16	20	6.21	1.31
Prestige of University	0	0	0	8	3	17	13	5.85	1.08
Campus Safety and Security	0	0	0	13	5	14	11	5.53	0.86
Low cost of room and board	1	0	3	14	4	7	12	5.17	0.77
Longer Distance from home	1	2	0	22	2	8	5	4.65	0.82
Prominence of university athletic teams	0	0	0	30	4	1	6	4.59	1.07
Shorter distance from home	2	1	0	29	3	3	3	4.24	1.00

Table 4.10Influence of University Factors on Out-of-State Participants' College Choice

Note: VB (Very Bad), B (Bad), P (Poor), N (Neither Good nor Bad), F (Fair), G (Good), VG (Very Good)

Participants were asked to rank (1-9) the most influential departmental characteristics on their attendance to WTAMU and the Department of Agricultural Sciences. Rank #1 is the most influential while rank #9 was the least influential. Table 4.11 shows the frequencies of how often participants ranked the characteristic #1.

Both in-state (n=41, 22.9%) and out-of-state (n=15, 34.9%) participants ranked the welcoming atmosphere in the Department of Agricultural Sciences as the most influential characteristics. Next, in-state participants ranked opportunities after graduation (n=25, 18.2%), while out-of-state participants ranked the quality and reputation of the Department of Agricultural Sciences faculty (n=12, 27.9%) second most influential. The least influential characteristic on in-state participants decision to attend and enrolled in the Department of Agricultural Sciences ranked was: Department of Agricultural Sciences advertisements (n=2, 1.5%); activities hosted by the Department. of Agricultural Sciences on WT's campus (n=5, 3.6%); and Department of Agricultural Sciences alumni (n=6, 4.4%) as least influential on their decision to attend and enrolled in the Department of Agricultural Sciences. Out-of-state participants ranked Department of Agricultural Sciences advertisements (n=1, 2.3%); activities hosted by the Department of Agricultural Sciences alumni (n=1, 2.3%); activities hosted by the Department of Agricultural Sciences alumni (n=1, 2.3%); activities hosted by the Department of Agricultural Sciences alumni (n=1, 2.3%) as the least influential characteristics.

	In-state (n=169)		Out-of- (n=4	-state ·9)
Departmental Characteristics	<i>f R</i> ank #1	(%)	<i>f R</i> ank #1	(%)
Welcoming atmosphere in the Dept. of Agricultural Sciences	41	22.9	15	34.9
Quality and reputation of the Dept. of Agricultural Sciences faculty	19	13.9	12	27.9
Opportunities after graduation	25	18.2	5	11.6
Scholarships from the Dept. of Agricultural Sciences	16	11.7	2	4.7
Quality and reputation of the Dept. of Agricultural Sciences students	13	9.5	2	4.7
Quality of agriculture facilities	10	7.3	4	9.3
Dept. of Agricultural Sciences Alumni	6	4.4	1	2.3
Activities hosted by the Dept. of Agricultural Sciences on WT's Campus	5	3.6	1	2.3
Dept. of Agriculture Sciences Advertisements	2	1.5	1	2.3

Table 4.11Influence of Departmental Characteristics on Participants' College Choice

Findings Related to Objective Four

Objective four identified individuals who were influential to participants' university choice. Participants were asked to rank (1-11) the most influential person of their attendance to WTAMU and the Department of Agricultural Sciences. Rank #1 is the most influential while rank #11 was the least influential. Table 4.12 displays the calculated responses for each person of influence. The frequencies and percentages representing the number of participants which ranked a particular person as most influential are shown below. For both in-state (n=44, 30.6%) and our-of-state (n=10, 23.3%) participants,

parent(s)/guardian(s) was ranked the highest. In-state participants ranked high school principal or administrator (n=1, 0.7%); high school teacher (other than ag) (n=4, 2.8%); extension agent or leader (n=4, 2.8%); and high school counselor (n=4, 2.8%) as the least influential. Out-of-state participants ranked high school principal or administrator, high school teacher (other than ag), extension agent or leader, and high school counselor all the same (n=1, 2.3%) as having the lowest influence on their decision.

Table 4.12Person of Influence on Participants' College Choice

	In-state (n=144)		Out-of (n=4	-state 45)
Person	<i>f R</i> ank #1	(%)	<i>f R</i> ank #1	(%)
Parent(s)/Guardian(s)	44	30.6	10	23.3
High School Agricultural Science Teacher	31	21.5	4	9.3
Agricultural Professional	19	11.2	12	27.9
WT Dept. of Agricultural Sciences graduate	13	9.0	4	9.3
Personal role Model/Mentor	11	7.6	6	14.0
Siblings	6	4.2	3	6.1
Other relatives	7	4.9	2	4.7
High School Counselor	4	2.8	1	2.3
Extension Agent or Leader	4	2.8	1	2.3
High School Teacher (other than ag)	4	2.8	1	2.3
High School Principal or Administrator	1	0.7	1	2.3

Findings Related to Objective Five

Objective five sought to describe demographics of participants completing the survey. Participants were asked to identify their home state. Figure 8 shows the breakdown of participants' home states. The majority of participants were from Texas and are considered in-state; the remaining 47 are from states other than Texas and are considered out-of-state.

Figure 8 Participants by Home State



Figure 9 displays the breakdown of in-state participants by home town in the top 26 counties of the Texas Panhandle. Of the 159 in-state participants, 27% (n=44) identified that their hometown was located within the top 26 counties of the Texas Panhandle. The largest number of participants identified that their hometown was within Potter county (n=17).

Figure 9 In-state Participants by Top 26 Texas Counties

2 Da	llam	s	herman	ł	1 Hansford	(1 Dchiltree	L	1 .ipscomb
Hartle	Υ		Moore	н	1 Iutchinson		Roberts	н	1 Iemphill
1 Oldh	am		17 Potter	(1 Carson		4 Gray	v	Vheeler
2 Deaf Sr	nith	F	4 Randall	A	1 rmstrong	Donley		Cu	1 ollingsworth
Parmer	4 Castro		Swisher	ſ	1 Briscoe		1 Hall		Childress

Table 4.13 shows the percentages of participants by gender. A gender difference did not appear between in-state and out-of-state participants. Of in-state participants, 36.7% were male (n=62) and 63.3% were female (n=107). With out-of-state student, 30.6% were male (n=15) and 69.4 were female (n=34).

Table 4.13 Participants by Gender

	In-state (<i>n</i> =169)		Out-of-state (<i>n</i> =49)	
Gender	f	(%)	f	(%)
Female	107	63.3	34	69.4
Male	62	36.7	15	30.6

The ethnicity of participants is described in Table 4.14. For the in-state participants 85.2% indicated ethnicity as White/Caucasian (n=144). Other ethnicities reported in this group were Hispanic (n=20, 11.8%); Asian (n=1, 0.6%); and other ethnicities (n=4, 2.4%). For out-of-state participants, White/Caucasian (n=45, 91.8%) was also the largest reported ethnic group. This was followed by Hispanic (n=4, 8.2%). No participants from out-of-state reported ethnicity as Asian, Pacific Islander, African American, Native American, or any other ethnicity (n=0, 0.0%).

Table 4.14 Participants by Ethnicity

	In-state (<i>n</i> =169)		Out-of-state (<i>n</i> =49)	
Ethnicity	f	(%)	f	(%)
White/Caucasian	144	85.2	45	91.8
Hispanic	20	11.8	4	8.2
Other	4	2.4	0	0.0
Asian	1	0.6	0	0.0
Native American	0	0.0	0	0.0
Pacific Islander	0	0.0	0	0.0
African American	0	0.0	0	0.0

Table 4.15 shows annual family income for participants in this research study. For in-state participants the largest representation identified a family income of \$100,000 or more (n=44, 26.8%). This is followed by \$60,000 - \$69,999 (n=19, 11.6%); \$40,000 - \$49,999 (n=18, 11.0%); \$70,000 - \$79,999 (n=18, 11.0%); \$90,000 - \$99,999 (n=16, 9.8%); \$80,000 - \$89,999 (n=15, 9.1%); \$50,000 - \$59,999 (n=13, 7.9%); \$30,000 - \$39,999 (n=9, 5.5%); below \$20,000 (n=7, 4.3%); and \$20,000 - \$29,999 (n=5, 3.0%).

For participants from out-of-state participants, the largest representation came from the family income group of \$100,000 or more (n=15, 31.3%). Following family income category were the categories of \$90,000 - \$99,999 (n=6, 12.5%); \$80,000 -\$89,999 (n=6, 12.5%); \$40,000 - \$49,999 (n=5, 10.4%); \$70,000 - \$79,999 (n=4, 8.3%); below \$20,000 (n=3, 6.3%); \$30,000 - \$39,999 (n=3, 6.3%); \$20,000 - \$29,999 (n=2, 4.2%); \$50,000 - \$59,999 (n=2, 4.2%); and \$60,000 - \$69,999 (n=2, 4.2%).

Table 4.15Participants by Annual Family Income

	In-state (<i>n</i> =209)		Out-o (n	of-state =48)
Income	f	(%)	f	(%)
Below \$20,000	7	4.3	3	6.1
\$20,000 - \$29,999	5	3.0	2	4.1
\$30,000 - \$39,999	9	5.5	3	6.1
\$40,000 - \$49,999	18	11.0	5	10.2
\$50,000 - \$59,999	13	7.9	2	4.1
\$60,000 - \$69,999	19	11.6	2	4.1
\$70,000 - \$79,999	18	11.0	4	8.2
\$80,000 - \$89,999	15	9.1	6	12.2
\$90,000 - \$99,999	16	9.8	6	12.2
\$100,000+	44	26.8	15	30.6

Other demographic information which was collected and recorded was age. Age was recorded as a precautionary measure as the Chapman's (1981) Model of Student College Choice is only designed for rationally aged college students (18 - 21 years old). Table 4.16 shows participants by age. For in-state participants, the majority age division also fell between 18 and 20 years old (*n*=107, 63.3%). This was followed by 21 to 23 years old (*n*=56, 33.1%); 30 or older (*n*=3, 1.8%); 24 to 26 (*n*=2, 1.2%); and finally under 18 (*n*=1, 0.6%). Like the overall and in-state frequencies, out-of-state participants also had a majority of participants between the ages of 18 and 20 (*n*=31, 63.3%). The next age division, was 21 to 23 year old (*n*=17, 34.7%); and finally 30 and old (*n*=1, 2.0%). No out-of-state participants were under the age of 18 (*n*=0, 0.0%) or between the ages of 24 and 26 (*n*=0, 0.0%).

Table 4.16 Participants by Age

	In-state (<i>n</i> =169)		Out-o (n	of-state =49)
Age	f	(%)	f	(%)
Under 18	1	0.6	0	0.0
18 -20	107	63.3	31	63.3
21 – 23	56	33.1	17	34.7
24-26	2	1.2	0	0.0
30+	3	1.8	1	2.0

Highlighted in Table 4.17 are the frequencies of first generation college participants. For in-state participants, the majority of participants (n=136, 80.5%) were not being first generation college students, while 19.5% (n=33) were. 34.7% (n=17) of out-of-state participants are first generation college students, while 65.3% (n=32) were not.

Table 4.17First Generate College Students

	In-state (<i>n</i> =169)		Out-of-state (<i>n</i> =49)	
First Generation College Students	f	(%)	f	(%)
Yes	33	19.5	17	34.7
No	136	80.5	32	65.3

Figure 10 displays high school participation in organizations and activities. The top participation activities for in-state participants were FFA (n=115, 68.0%); National Honors Society (n=76, 45.0%); church related activities (n=69, 40.8%); 4-H (n=54, 32%); and school electives (n=61, 36.1%). Less than three percent (n=4, 2.4%) of in-state

participants were not involved in any organizations and/or activities. For out-of-state participants participation levels were slightly different. FFA (n=28, 57.1%) was the highest participated in organization and/or activities, following was 4-H (n=24, 49.0%); church related activities (n=22, 44.9%); National Honors Society (n=18, 36.7%); school electives (n=15, 30.6%); and finally student government (n=13, 26.5%). 2.0% (n=1) of out-of-state participants were not involved in any organizations and/or activities.



Participants' High School Participation in Organizations and Activities

Figure 10

■ In-State ■ Out-of-state
Table 4.18 describes the different agricultural sciences majors amongst participants. Of in-state participants, the largest representation of participants major in animal science (n=32, 19.8%). This is closely followed by pre-veterinary medicine (n=25, 15.4%); agricultural media and communication (n=22, 13.6%); agricultural education teacher certification (n=21, 13.0%,); agribusiness (n=20, 12.3%); agricultural business and economics (n=18, 11.1%); plant, soil and environmental sciences (n=10, 6.2%); Equine Industry and Business (n=9, 5.6%); and agriculture (n=5, 3.1%). Under five percent (n=7, 4.7%) said they were looking to change their major within the department. Of in-state-participants, almost 80% (n=115, 77.7%) said they are not looking to transfer to a different university, while 22.3% (n=33) said they were.

The largest representation of out-of-state participants major is tied between animal science (n=11, 22.9%). This is closely followed by agriculture education teacher certification (n=8, 16.7%); equine industry and business (n=7, 14.6%); tied is agricultural media and communication (n=6, 12.5 %,) and agricultural business and economics (n=6, 12.5%); agribusiness (n=4, 8.3%) and tied again plant, soil and environmental sciences (n=3, 6.3%) and pre-veterinary medicine (n=3, 6.3%). No out-of-state participants identified agriculture as their current major. No participants said they were looking to change their major within the department (n=0, 0.0%). Of out-of-state-participants almost 90% (n=36, 83.7%) said they are not looking to transfer to a different university, while 16.3% (n=7) said they were.

Table 4.18 Participants by Major

	In-s (<i>n</i> =	state 162)	Out-c (<i>n</i> =	of-state =48)
Major	f	(%)	f	(%)
Animal Science	32	19.8	11	22.9
Agriculture Education, Teacher Certification	21	13.0	8	16.7
Pre-Veterinary Medicine	25	15.4	3	6.3
Agricultural Media and Communication	22	13.6	6	12.5
Agribusiness	20	12.3	4	8.3
Agricultural Business and Economics	18	11.1	6	12.5
Equine Industry and Business	9	5.6	7	14.6
Plant, Soil and Environmental Sciences	10	6.2	3	6.3
Agriculture	5	3.1	0	0.0

Table 4.19 highlights the departmental club involvement and event participation. For in-state participants, colligate FFA is also the highest participated club (n=64, 37.9%) with freshman round up (n=52, 30.8%); Homecoming (n=44, 26.0%); and agriculture communicators of tomorrow (n=28, 16.6%) all following behind. Out-of-state participants had the highest participation in freshman round up (n=20, 40.8%). Following was colligate FFA (n=16, 32.7%); homecoming (n=12, 24.5%) and Block and Bridle (n=10, 20.4%).

	In-state $(n=169)$		Out-	of-state =49)
Departmental Club and Event	f	(%)	$\frac{f}{f}$	(%)
Colligate FFA	<u> </u>	37.9	16	32.7
Freshman Round-up	52	30.8	20	40.8
Homecoming	44	26.0	12	24.5
Agriculture Communicators of Tomorrow	28	16.6	9	18.4
Agribusiness Club	26	15.4	6	12.2
Block and Bridle	20	11.8	10	20.4
Farm and Ranch Club	23	13.6	3	6.1
Pre-Vet	24	14.2	2	4.1
Quiz Bowl	19	11.2	3	6.1
Herdsmen/Herdsmen Hearts	16	9.5	4	8.2
Horseman's Association	6	3.6	6	12.2
Livestock Judging	8	4.7	2	4.1
Equestrian Team	3	1.8	5	10.2
Horse Judging	0	0.0	4	8.2
Stock Horse Team	3	1.8	1	2.0
Rodeo	2	1.2	2	4.1
Meats Judging	2	1.2	0	0.0

Table 4.19Participants by Departmental Club Involvement and Event Participation

CHAPTER V

RECOMMENDATIONS AND CONCLUSIONS

Purpose and Objectives

The purpose of this study was to determine which recruitment methods are most effective for recruiting in-state and out-of-state students to the Department of Agricultural Sciences at West Texas A&M University. Specific research objectives for this study included:

 Identify the most effective recruitment methods employed by the Department of Agricultural Sciences for attracting both out-of-state and in-state students.
Compare recruiting methods and university characteristics for attracting out-ofstate versus in-state students to the Department of Agricultural Sciences.
Identify major factors other than current recruiting methods which influence attendance of students from out-of-state and in-state to the Department of Agricultural Sciences.

4. Identify individuals who were influential to student's university choice.

5. Identify key demographic characteristics of participants within this study.

Population

The target population of this study consisted of all undergraduate students in the Department of Agricultural Sciences at West Texas A&M University currently enrolled in the Fall 2015 semester. These groups of participants were considered appropriate to the study for three key student characteristics. First, these participants were all agriculture majors at West Texas A&M University. Second, this group of participants represented a variety of agriculture majors within the Department of Agriculture Sciences. Finally this group represented both in-state and out-of-state residence.

Conclusions

Conclusion from Objective One

This section of the survey was used to identify the most effective recruitment efforts employed by the Department of Agricultural Sciences for attracting both in-state and out-of-state students.

The first factor was identifying the most effective connection made by the department to communicate with prospective students. In-state participants identified having a personal conversation, whether the conversation was with a professor on campus (M=5.48, SD=1.08) or with a departmental representative (M=5.34, SD=0.88) was the most effective connection made. Out-of-state participants identified the most effective connection made was having a personal conversation with a professor on campus (M=5.84, SD=1.27), followed by participation in student activities events on campus (M=5.69, SD=1.42). Other studies have shown personal contact or conversation with professors was one of the most important and useful ways to gain information (Peiter et al., 2004; Segler-Conrad et al., 2004; Washburn et al., 2002).

A personal conversation with a professor on campus can be related back to a campus visit. In-state participants, 61.5% (*n*=104) said they visited campus prior to enrolling within the department. 61.2% (*n*=30) of out-of-state participants also said they

had visited campus prior to enrolling within the department. Both in-state (M=5.50, SD=1.13) and out-of-state (M=5.82, SD=1.25) agreed an on campus visit was the most effective type of visit on their decision to attend the Department of Agricultural Sciences. Other than on campus visits, students were also asked about off campus and 4-H and FFA visit. In-state participants identified visits at 4-H or FFA events (n=79, 46.7%) was second most effective (M=4.97, SD=0.79) on their decision to attend the department. While off campus visits (n=45, 26.8%) was the least effective (M=4.82, SD=0.79) type of visit.

Other events which brought in-state participants to West Texas A&M University prior to their enrollment were FFA events (n=84, 49.7%); athletic events (n=22, 13.0%); and 4-H events (n=19, 11.2%). For out-of-state participants, other events which brought them to campus were athletic camps (n=6, 12.2%); FFA events (n=5, 10.2%); and athletic events (n=5, 10.2%). Cole and Thompson (1999) found FFA/4-H activities on campus were not influential to student enrollment. Rayfield and Murphey (2013) also agreed 4-H and FFA events on campus as well as high school visits were the least influential.

In today's technology driven world, many researchers have found university and college websites are important sources of information (Hoyt and Brown, 2003); Butler et al., 2004; Rayfield and Murphy, 2013; Rocca and Washburn, 2005; Shrestha et al., 2011). In this study completed at West Texas A&M University, in-state participants ranked the departmental website (M=4.72, SD=0.58) 5th and the department's social media (M=4.36, SD=0.57) ranked 8th. Out-of-state participants ranked the departmental website (M=4.91, SD=0.65) 4th and the department's social media (M=3.98, SD=0.95) 9th.

The goal of the Department of Agricultural Sciences is to get some sort of information or promotional material in a prospective students' hand, whether is a meeting on or off campus. Some of these items include caps, drawstring bags, pens, key chains, sticky notes, sunglasses, or a departmental newsletter known as, The Brand. Of the completed surveys, 51% (n=85) of in-state and 55% (n=27) of out-of-state participants said they had received some sort of paraphernalia from the department. When asked about the effectiveness of receiving these items on their decision to enroll in the Department of Agricultural Sciences at West Texas A&M University, in-state participants rated caps (M=5.18, SD=0.81) as being the most effective promotional item. Out-of-state students rated receiving a copy of The Brand (M=4.67, SD=0.80) was the most effective on their decision to attend the department.

Conclusion from Objective Two

Objective two sought to compare selected recruitment methods attracted out-ofstate versus in-state students to the Department of Agricultural Sciences.

Recruitment methods which appear to be more successful at attracting in-state students are: campus visits, receiving a cap as part of promotional paraphernalia, having a personal conversation with a Department of Agricultural Sciences professor on campus or with a representative off campus and participating in student activity events on campus.

University characteristics appear to be more successful at attracting in-state students: the low cost of tuition and enrollment and low cost in student fees.

The recruiting methods appear to be more successful at attracting out-of-state students are: on campus visits, receiving a letter and/or information in the mail from the Department of Agricultural Sciences on, having a personal conversation with a Department of Agricultural Sciences professor campus, have a personal conversation with a Department of Agricultural Sciences representative off campus.

Like in-state participants, the university characteristics appear to be more successful at attracting out-of-state students is the low cost of tuition and enrollment and low cost of student fees.

Conclusion from Objective Three

This section of the survey sought to identify major factors other than current recruiting methods, such as university and departmental characteristics, which influence attendance of students from out-of-state and in-state to the Department of Agricultural Sciences.

In-state participants found university factors such as small class size (M=6.29, SD=1.42), low tuition (M=5.98, SD=1.21), low cost of student fees (M=5.81, SD=1.08), prestige of university (M=5.73, SD=1.02) and campus safety and security (M=5.53, SD=0.86) all to be influential in their decision to attend WTAMU and the Department of Agricultural Sciences.

Out-of-state participants identified university factors such as low cost of student fees (M=6.47, SD=1.58), low tuition (M=6.37, SD=1.54), small class size (M=6.21, SD=1.31) prestige of university (M=5.85, SD=1.08) and campus safety and security

(M=5.53, SD=0.86) to all be the most influential characteristics on their decision to attend WTAMU and the Department of Agricultural Sciences.

Chapman (1981) agreed cost is one of the highest influences of whether a student will attend a university. Many studies have found class size to be one of the least important factors for future agriculture majors (Robinson et al., 2007; Rocca and Washburn, 2005; Washburn et al., 2002). However, Rocca and Washburn (2007) also reported class size was more important to students coming directly from high school than those transfer from a community college.

When asked about departmental factors were most influential, in-state participants ranked the welcoming atmosphere in the Department of Agricultural Sciences (n=41, 22.9%) as the most frequent and influential departmental factor influenced their attendance. Opportunities after graduation (n=25, 18.2%) was also ranked as most influential by many participants. Next was the quality and reputation of the Department of Agricultural Sciences faculty (n=19, 13.9%). Department of Agricultural Sciences advertisements (n=2, 1.5%), activities hosted by the Department of Agricultural Sciences on WTAMU campus (n=5, 3.6) and Department of Agricultural Sciences alumni (n=6, 4.4%) all appear to be the least influential on the participants' decision to attend WTAMU and the Department of Agricultural Sciences.

Out-of-state participants ranked the welcoming atmosphere in the Department of Agricultural Sciences (n=15, 34.9%) as the most frequent and influential departmental factor influenced their attendance. The quality and reputation of the Department of Agricultural Sciences faculty (n=12, 27.9%) was also ranked as most

influential by participants. Other researchers' results prove two of the most important factors influencing college choice are the institutional reputation and the academic program characteristics (Chapman, 1981; Hodges and Barbuto, Jr., 2002; Hoyt and Brown, 2003; Pratt and Evens, 2002; Robinson et al., 2007; Rocca and Washburn, 2005; Washburn et al., 2002). Next was opportunities after graduation (n=5, 11.6) and quality of agricultural facilities (n=4, 9.3%). Scholarship from the Department of Agricultural Sciences students both had a frequency of being ranked #1 twice (4.7%). The following factors had a frequency of being ranked #1 twice (4.7%). The following factors had a frequency of being ranked #1 once (2.3%): Department of Agricultural Sciences' alumni, Activities hosted by the Department of Agricultural Sciences on WTAMU campus, and lastly Department of agricultural Sciences advertisements.

Wildman and Torres (2001) identified some of the same college factors to be very influential to students. Those factors were: faculty's friendliness in the department, friendly atmosphere in the college of agriculture, teaching reputation of the department and teaching reputation of major's professors.

Conclusion from Objective Four

Objective four sought to identify individuals who were influential to students' university choice. For in-state participants, parents(s)/Guardian(s) was ranked the most frequently as #1 and the most influential (n=44, 30.6%). Following them was high school agricultural sciences teacher (n=31, 21.5%), agricultural professional (n=19, 11.2), West Texas A&M University Department of Agricultural Sciences graduate (n=13, 9.0%) and personal role model/mentor (n=11, 7.6).

Out-of-state participants ranked agricultural professionals most frequently and the most influential (n=12, 27.9%). This was followed by parent(s)/Guardian(s) (n=10, 23.3), personal role model/mentor (n=6, 14.0%), tied with a frequency of 4 (9.3%) was high school agricultural sciences teacher and West Texas A&M Department of Agricultural Sciences graduates.

Many researchers agree parent(s)/guardians(s) were the most influential individual on a students' decision (Herren et al., 2011; Cole & Thompson, 1999; Peiter et al., 2004). In 2008, Williams et al. identified high school agricultural sciences teachers were the fourth most influential to students at Texas Tech University. Cole and Thompson (1999) declared high school agricultural science teachers should continue to be valued in the recruitment process, also stating extension staff may have the greatest potential of providing additional help with recruitment to agricultural sciences majors and universities.

Conclusion from Objective Five

Objective five sought to identify key demographic characteristics of participants within this study.

While 159 participants identified Texas as their home state. Of the 159 in-state participants, 27% (n=44) identified that their hometown was located within the top 26 counties of the Texas Panhandle. The largest number of participants identified that their hometown was within Potter county (n=17). Mak and Moncur (2002) proved states with more degree-granting higher education institutions tend to have a lower rate of college-bound freshman enrolling in schools in other states. Colorado (n=14) and New Mexico (n=10) had the next highest level of participation.

For in-state participants, over half (63.3%) were female while 36.7% were male. The trend continued with out-of-state participants while over half (69.4%) were females and right at thirty percent (30.6%) were males.

The primary ethnicity indicated by in-state participants was white/Caucasian with 85.2% (n=144), while the second largest ethnicity indicated was Hispanic (n=20, 11.8%). Out-of-state participants also indicated white/Caucasian as the largest ethnicity group (n=45, 91.8%) and the Hispanic group followed with a frequency of 4 (8.2%).

The largest family income range was indicated by both in-state (n=44, 26.8) and out-of-state (n=15, 30.6%) participants was the range of \$100,000 plus. For in-state participants, the range of \$60,000 - \$69,999 came in next (n=19, 11.6). However for out-of-state participants, two different ranges tied for the next position. Both \$80,000 - \$89,999 and \$90,000-\$99,999 both had a frequency of six (12.2%).

The majority of both in-state (n=107, 63.3%) and out-of-state (n=31, 63.3%) groups identified as being between 18 and 20. The next largest age group for both in-state (n=56, 33.1%) and out-of-state (n=17, 34.7%) participants were the ages of 21 to 23.

Just under one fifth (19.5%) of in-state participants were first from their immediate family to attend a university, while less than thirty-five percent (34.7%) of out-of-state participants are first from their immediate family to attend a university.

Almost seventy percent (68.0%) of in-state participants were involved in the National FFA Organization in high school. Less than one half (45.0%) reported being involved in the National Honors Society. While almost two fifths (40.8%) identified with being involved in church related activities. Just over one quarter (32.0%) of participants were involved in their local 4-H program.

For out-of-state participants, over half (57.1%) of the participants were involved in the National FFA Organization while 4-H was just under one half (49.0%). Church related activities (n=15, 30.6%) and the National Honors Society (n=18, 36.7%) came in next.

Recommendations

With this descriptive study, caution should be used in interpretation of results and generalizations to other populations should not occur. However based on this standard data it is recommended all parties involved consider the following:

- This study has identified student characteristics and external influences which have brought both in-state and out-of-state participant groups to West Texas A&M University and the Department of Agricultural Sciences. Similar longitudinal data should be collected and targeted toward all students enrolled in the Department of Agricultural Sciences at West Texas A&M University. It could also be beneficial to study variances among groups of student classifications. This research should consist of both quantitative and qualitative methodologies. Finally, the best practices of recruitment should be developed to assist the university personnel who continually face time, financial and labor constraints.
- Campus visits and personal conversations were found to be the most influential factor on both in-state and out-of-state students' decision to attend and enroll in the Department of Agricultural Sciences. Faculty and personnel should keep this

in mind and utilize FFA and 4-H events bring prospective students onto campus. FFA was also the highest participated in event brought in-state participants on campus prior to enrollment, while athletic camps was the highest participated in event brought out-of-state participants to campus prior to enrollment. This will allow for students to have a personal conversation with faculty or departmental representatives. Faculty should also target the parent(s)/guardian(s) when appropriate, as they continue to be the most influential person in a student's college decision.

- 3. While personal conversations remain highly effective, faculty and personnel should consider travel to both in-state and out-of-state events such as State FFA Conventions and State 4-H Round Ups to recruit prospective students. While at events, faculty and personnel should strive to make a connection with the prospective student, thus making prospective students feel more comfortable about choosing West Texas A&M University and the Department of Agricultural Sciences.
- 4. Parent(s)/guardian(s) are and will remain a factor in the decision of students to attend an institution. Universities and colleges must account for this when recruiting prospective students and continually develop ways to 'recruit' parent(s)/guardians(s) as well. For in-state participants, a high school agricultural sciences teacher was the second most influential person and should still be valued when recruiting in-state students.
- To recruit out-of-state students, recruitment efforts should become focused in New Mexico and Colorado, where the majority of out of state participants

identified as their home town. To recruit in these areas, it is recommended to attend FFA and 4-H events, where almost one hundred percent (94%) of the population in this study participated in.

- 6. As a state university, students find the factors of cost and welcoming atmosphere of the Department of Agricultural Sciences to be highly attractive. As a department, this needs to be utilized to recruit both in-state and out-of-state prospective students.
- 7. Future studies should tie participants' classification and academics to the survey to be able to conclude how classification may affect a participant's receptiveness to recruiting activities demonstrated by the Department of Agricultural Sciences. Other future studies should compare the recruiting methods of other universities to the Department of Agricultural Sciences' to determine what can be improved to compete against Division I universities which seem to be the biggest setback for WTAMU.
- 8. Another future studied should be done to identify brand awareness for the Department of Agricultural Sciences at West Texas A&M University. Understanding how aware prospective students are about the department's branding can help increase knowledge of the department and WTAMU, which will increase enrollment.

Discussion and Implications

For both in-state and out-of-state students, campus tours, personal conversations with professors or representatives, and the welcoming atmosphere of the department

appear to be the most effective recruiting methods and practices employed by the Department of Agricultural Sciences.

Almost all in-state participants (95.86%) and about one-third (34.6%) of out-ofstate participants appeared to have their first experience with the Department of Agricultural Sciences by being on campus for a campus tour or participating in an event held on campus such as FFA, 4-H, and athletic events. Getting prospective students on campus and having them meet with a faculty or representative from the department appear to be the best way to get them to enroll.

Other recruitment methods out-of-state students valued were receiving a letter or information about the department by mail. Armstrong (1999) suggested promotional materials influence a student's choice and play a vital role in the decision making process.

Although promotional materials were not extremely influential in the participants' from both in-state and out-of-state decision to attend the Department of Agricultural sciences, based upon the survey, they do serve as an excellent marketing tool Promotional items can help make students, parents\guardians, high school agricultural science teachers, 4-H agents and leaders and personal role models and mentors aware of WTAMU and the Department of Agricultural Sciences. Chabot (2007) states the more aware consumers are of your product and your brand, the more likely they are going to buy from you.

For the past several years, the Department of Agricultural Sciences at West Texas A&M University has seen consistent growth in enrollment. As the department grows, so

will challenges associated with the factors identified above. Both university and departmental personnel will need to be proactive in dealing with such challenges to assist in recruiting prospective students to the Department of Agricultural Sciences at West Texas A&M University. Cartmell et al. (2011) suggested institutions need to continue to increase opportunities to attract prospective students to campuses and strive to provide them with a positive experience and professors should be available to meet with the student.

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APPENDIX A

Survey Instrument:

Informed Consent Form

Introduction

This study attempts to collect information about differences in individual perception of recruitment methods employed by the Department of Agricultural Sciences.

Procedures

You will be asked several questions pertaining to the Department of Agricultural Sciences recruitment methods. The questionnaire will take approximately 20 minutes or less. Questions are designed to determine how effective and influential recruitment methods within the Department of Agricultural Sciences are. This questionnaire will be conducted with an online Qualtrics-created survey.

Risks/Discomforts

There are no direct risks for participants, other than daily life.

Benefits

There are no direct benefits for participants. However, it is hoped that through your participation, researchers will learn more about which methods gain more student interest.

Confidentiality

All data obtained from participants will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All questionnaires will be concealed, and no one other than then primary investigator and assistant researches listed below will have access to them. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by the primary investigator.

Compensation

There is no direct compensation.

Participation

Participation in this research study is completely voluntary. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to your academic status, GPA or standing with the university. If you desire to withdraw, please close your Internet browser.

Questions about the Research

If you have questions regarding this study, you may contact Whitley Gammill, wgammilll@wtamu.edu, or Lance Kieth, lkieth@wtamu.edu.

Questions about your Rights as Research Participants

If you have questions you do not feel comfortable asking the researcher, you may contact the West Texas A&M University Institutional Review Board for the Protection of Human Subjects, Office of Research Services, or call (806) 651-2732.

Survey of Recruitment Methods to Attract out-of-state and in-state students within the Department of Agricultural Sciences

Please select the correct answer for each question below.

- 1. Gender
 - Male
 - Female
- 2. Age
- o Under 18
- o 18-20
- o 21-23
- o 24-26
- o 27-29
- o 30+: _____
- 3. Ethnicity
 - o White/Caucasian
 - African American
 - Native American
 - o Asian
 - Pacific islander
 - Hispanic
 - Other:_____
- 4. What is your family's annual income range?
 - Below \$20,000
 - o \$20,000 \$29,999
 - o \$30,000 \$39,999
 - o \$40,000 \$49,999
 - o \$50,000 \$59,999
 - o \$60,000 \$69,000
 - o \$70,000 \$79,999
 - o \$80,000 \$89,999
 - o \$90,000 \$99,999
 - o \$100,000+

5. Are you first from you immediate family to attend a university?

- o Yes
- o No
- 6. Did you visit with the Department of Agricultural Sceinces at WTAMU prior to applying?
 - o Yes
 - o No

7. Did you visits with a Department of Agricultural Sceinces representative off campus?

- Yes: where:_____
- o No

8. Who did you visit with off campus?

9. Have you ever visited with a Department of Agricultural Sciences Representative at a 4-H or FA events (i.e. stock show, judging contest, convention, round-up, ect.)

0

- o Yes
- o No

10. Who did you visit with?

11. Where did you visit with a representative at?

12. How effective where these visits on your decision to attend the Department of Agricultural Sciences?

0 _____

	Very Ineffective	Ineffective	Somewhat Ineffective	Neither Effective nor Ineffective	Somewhat Effective	Effective	Very Effective
On Campus Visit	0	0	0	0	0	0	0
Off Campus Visit	0	0	0	0	0	0	0
4-H or FFA Event Visit	0	0	0	0	0	0	0

- 13. Did you or a family member ever receive a Department of Agricultural Sciences cap, drawstring bag, sunglasses, or any other swag prior to enrolling at WTAMU?
 - o Yes
 - o No

- 14. What items did you receive? Select all that apply.
 - o Cap
 - Sunglasses

- Sticky notes
- Pen Keychain

- Drawstring Bag
- The Brand

- Other:_____
- 15. How effective was receiving any of these items on your decision to attend the Department of Agricultural Sciences?

	Very Ineffective	Ineffective	Somewhat Ineffective	Neither Effective nor Ineffective	Somewhat Effective	Effective	Very Effective	Did not Receive
Cap	0	0	0	0	0	0	0	0
Sunglasses	0	0	0	0	0	0	0	0
Drawstring Bag	0	0	0	0	0	0	0	0
The Brand	0	0	0	0	0	0	0	0
Sticky Notes	0	0	0	0	0	0	0	0
Key Chain	0	0	0	0	0	0	0	0
Other:	0	0	0	0	0	0	0	0

16. What is your hometown?

0

17. How many students were in your high school graduating class?

18. Prior to being a student in the Department of Agricultural Sciences, what brought you to WT's campus? Select all that apply.

- 4-H Events
- Athletic Camps
- Athletic Events
- Band Camp
- Feedlot Camp

- FFA Events
- o UIL
- Other:

- 19. Which of the following activities did you participate in while attending high school?
 - o 4-H
 - o Boy/Girl Scouts
 - Cheerleading or Spirit/Pom squad
 - o Church related activities
 - o FFA
 - High school rodeo
 - Hobby clubs (chess, photography, ect.)
 - o JROTC
 - National Honors Society
 - o No High School Activities
 - Other vocational organizations (FCCLA, DECA, BPA, ect.)
 - School electives (drama, band, choir, ect.)
 - School Newspaper or Yearbook
 - School subject clubs (science club, math club, ect.)
 - Student council/Government
 - Other: _____
- 20. What other colleges and/or universities did you visit other than the Department of Agricultural Sciences at WTAMU?
 - 1._____
 - o 2._____ o 3._____
 - o 4._____
 - 0 5._____
- 21. What other colleges and/or universities did you apply to when applying to WTAMU?
 - 0 1._____
 - o 2._____ o 3._____

 - o 4. _____ o 5. _____

- 22. What is your current major?
 - o Agribusiness
 - Agricultural Business and Economics
 - Agricultural Media and Communication
 - Agricultural Education, Teacher Certification
 - o Agriculture
 - o Animal Science
 - o Equine Industry and Business
 - Plant, Soil, and Environmental Sciences
 - Pre-Vet
 - Other : _____
- 23. What Department of Agricultural Sciences student organization and/or activities have you participated in? select all that apply
 - o ACT
 - Agribusiness Club
 - Block and Bridle
 - Colligate FFA
 - o Equestrian Team
 - o Farm and Ranch Club
 - Freshman Round Up
 - Herdsman/Herdsman Hearts
 - Homecoming
 - Horse Judging
 - Horseman's Association
 - Livestock Judging
 - Meat Judging
 - o Pre-Vet Club
 - Quiz Bowl
 - o Rodeo
 - Stock Horse Team
 - Other: _____

24. What type of influence did these factors have on your decision to enroll in the Department of Agricultural Sciences at WTAMU?

	Very Bad	Bad	Poor	Neither Good nor Bad	Fair	Good	Very Good
Low Cost of Student Fees	0	0	0	O	0	0	0
Prestige of University	0	0	0	0	0	0	0
Low Cost of Room and Board	0	0	0	0	0	0	0
Campus Safety and Security	0	0	0	0	0	0	0
Small Class Size	0	0	0	0	0	0	0
Low Tuition	0	0	0	0	0	0	0
Longer Distance from Home	0	0	0	0	0	0	0
Shorter Distance from Home	0	0	0	0	0	0	0
Prominence of University Athletic Teams	0	0	0	0	0	0	0

25. When making your decision to enroll in the Department of Agricultural Sciences at WTAMU how effective was each of these recruiting factors?

	Very Ineffective	Ineffective	Somewhat Ineffective	Neither Effective nor Ineffective	Somewhat Effective	Effective	Very Effective
TV, Radio, Newspaper, Magazine, or other Advertisement about the Dept. of Agricultural Sciences	0	0	0	0	0	0	0
Dept. of Agricultural Sciences printed publications (brochures, etc)	0	0	0	0	0	0	0
received in the mail from the Dept. of Agricultural Sciences	0	0	0	0	0	0	0
Dept. of Agricultural Sciences representative at your high school Personal conversation with a	0	0	0	0	0	0	0
Dept. of Agricultural Sciences professor on campus	0	0	0	0	0	0	0
Dept. of Agricultural Sciences website	0	0	0	0	0	0	0
Sept. of Agricultural Sciences Social Media	0	0	0	0	0	0	0
Dept. of Agricultural Sciences representative	0	0	0	0	0	0	0
Participation in an on campus recruitment program (Discover WT, ect.) Participation in student	0	0	0	0	0	0	0
activity events on campus (4- H, FFA, feedlot camp, music, sports, ect.)	0	0	0	0	0	0	0

- 26. Rank who was most influential in your decision to attend the Department of Agricultural Sciences by dragging and dropping the answers in the correct order. 1= most influential, 10=least influential.
 - \circ Parent(s)/Guardian(s)
 - High School Principal or administrator
 - High School Teacher (other than ag)
 - Agricultural Professional (local farmer, rancher, veterinarian)
 - Personal Role Model/Mentor
 - Extension Agent of Leader (4-H adult leader, 4-H Agent, FCS agent)
 - WT Dept. of Agricultural Sciences graduate
 - High School Counselor
 - Other Relative (aunt, uncle, ect.)
 - o High School Agricultural Sciences Teacher
 - Sibling (sister, brother)

- 27. Rank which factors were most influential in your attendance to WTAMU and the Department of Agricultural Sciences by dragging and dropping the answers in the correct order. 1=most influential, 10 = least influential
 - Quality and reputation of the Dept. of Agricultural Sciences faculty
 - Dept. of Agricultural Sciences Advertisements
 - Welcoming atmosphere in the Dept. of Agricultural Sciences
 - Quality and reputation of Dept. of Agricultural Sciences Students
 - Dept. of Agricultural Sciences alumni
 - Opportunities after graduation
 - Scholarships from the Dept. of Agricultural Sciences
 - o Activities hosted by the Dept. of Agricultural Sciences on WT's Campus
- 28. Are you looking to change your major?
 - o Yes
 - o No
 - Maybe

29. What are you considering to change your major to

- o Agribusiness
- Agricultural Business and Economics
- o Agricultural Media and Communication
- Agricultural Education, Teacher Certification
- Agriculture
- Animal Science
- Equine Industry and Business
- Plant, Soil, and Environmental Sciences
- Pre-Vet
- Other : _____
- 30. Why are you considering changing your major? Select all that apply.
 - Job opportunities after graduation
 - Interest in different subject matter
 - Advisors or faculty members in that area
 - Other:_____
- 31. Have you considered transferring to a different institution?
 - o Yes
 - o No
- 32. What reason are you considering transferring?
 - Did not receive a scholarship
 - Too expensive
 - Do not feel welcomed
 - Do not offer a degree program you are interested in.
 - Other:_____

- 33. What institution are you considering to transfer to?
 - 0 _____
- 34. How many Semesters have you been enrolled in the Department of Agricultural Sciences?
 - 0-2○ 3-5
 - o **6-8**
 - o 9-11
 - o 11+:_____

APPENDIX B

September 24, 2015

Dear Whitley Gammill:

Your research proposal titled, "**Recruitment of Out of State and In State Students Within the Department of Agriculture Sciences**" was submitted to the full membership of the West Texas A&M University IRB on **August 27, 2015** for an **exempt** review. The IRB may (i) approve, (ii) approve conditionally, or (iii) disapprove proposed protocols and consent forms. The decision of the IRB regarding your proposal was:

Х	Approve
	Approve Conditionally
	Disapprove

Approval is extended for one calendar year. Should data collection proceed past one year, or should you make changes in the methodology as it affects human subjects, you must resubmit the study to the IRB.

Assuming all IRB training requirements have been met, procedures involving human subjects may now proceed.

Upon verifying your successful completion of all training requirements, an official letter of approval from the Graduate School is forthcoming. Thank you for your cooperation with the IRB and we wish you well in your research project.

Sincerely,

Dr. Gary Bigham, IRB Chair

APPENDIX C

Panel of Experts:

Dr. Lance Keith, Ed.D. Professor and Head Department of Agricultural Sciences West Texas A&M University

Dr. Tanner Robertson, Ph.D. Assistant Professor of Agricultural Media and Communication Department of Agricultural Sciences West Texas A&M University

Dr. Kevin Williams, Ed.D.

Associate Professor of Agriculture Education

Department of Agricultural Sciences

West Texas A&M University

Dr. Brock Blaser

Assistant Professor of Plant, Soil and Environmental Sciences

Department of Agricultural Sciences

West Texas A&M University

Dr. Mallory Vestal

Associate Professor of Agriculture Business and Economics

Department of Agricultural Sciences

West Texas A&M University