PREPARING INDUSTRY LEADERS: AN EVALUATION OF FORMER AFA PARTICIPANTS' WORKPLACE SKILLS

by

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ABSTRACT

For more than 10 years Agriculture Future of America (AFA) has been helping college students from around the country prepare for careers in the food and agriculture industry. Over time the organization has received a lot of positive feedback from both participating students and employers. The feedback has led the organization to believe there is an "AFA Advantage," where participants have an advantage over their peers when entering the workforce due to their AFA involvement. The purpose of the thesis was to determine if there is an "AFA Advantage," by measuring former participants' workplace skill sets, as determined by agribusiness employers in a previous study. To accomplish this purpose, two sub-objectives were evaluated, measuring the skill competencies of former AFA participants participating in a (1) self assessment and (2) comparison with peers, who were not involved in AFA.

The analysis is based on survey results from former AFA participants. The conceptual model established examined if there was a relationship between AFA, college and the skills desired by agribusiness employers. The skills measured include interpersonal communication skills, critical thinking skills, knowledge of general business practices, quantitative analysis skills, cultural/gender awareness, and oral presentation skills.

Through this research, it was determined that there is an "AFA Advantage." Data shows evidence that former participants do attribute AFA to helping them develop skills for the workplace. In fact, as the years of AFA participation increased, individuals tended to agree more that AFA contributed to their workplace skill competencies.

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CHAPTER I: INTRODUCTION

As the baby boomer generation starts to retire, business and industry is beginning to feel a tight squeeze on competition for prime human capital. The succeeding generations are considerably smaller, making it a challenge for businesses to meet human capital needs in sourcing and hiring qualified individuals. One organization, Agriculture Future of America (AFA), has been working to meet those needs for the food and agricultural industry. This nonprofit focuses on creating partnerships that identify, encourage and support college students preparing for food and agricultural careers. AFA provides students with professional and personal development opportunities as a capstone experience to their collegiate classroom and organization experiences, rather than as a traditional membership-based organization.

1.1 Agriculture Future of America Background

AFA began in 1996 through the efforts of R. Crosby Kemper and agribusiness leaders in Kansas City, Missouri (Agriculture Future of America, 2007). These individuals recognized a need for a leadership development organization for college students pursuing careers in the food and agriculture industry. They envisioned AFA to be complementary to 4-H and FFA, both agriculture/rural youth leadership organizations. Focusing at the collegiate level, AFA provides students with internship opportunities, leadership and career development training, and scholarships. AFA promotes internships from its partners in business, government and organizations tied to the food and agriculture industry. In turn, AFA is able to connect these partners with an extensive network of agriculture students, who are, in most cases, the top achieving leaders on their respective campuses. As a

provider of leadership and development training, the organization offers the AFA Leaders Conference. This program is the most notable and recognizable AFA program. The fourday development conference provides students with a unique opportunity to interact with agriculture and food industry professionals through session speakers, roundtable discussions and other networking experiences. The program is designed for students to participate in three tracks (consecutive sessions) over three years, building on their skills and talents. Track 1 focuses on personal assessment and career preparation. Track 2 focuses on communication and relationship building skills. Track 3 focuses on managing change and preparing to live and work in a global marketplace. AFA interns are also among the Leaders Conference participants. The third component of AFA is the scholarship program, which offers financial assistance to graduating high school seniors, who are planning to study an agriculture-related degree. A portion of this scholarship also supports each recipient's participation in the AFA Leaders Conference. These three components come together to make the AFA organization. However, what really has driven the success of the organization is the growing support from the agriculture and food industry as sponsors and board members.

AFA describes the relationship between these components through the "AFA Leader Development Model," which is illustrated in Figure 1.1. According to AFA, the students who participate in AFA are talented, passionate and committed to a career in agriculture. AFA's mechanisms for developing leaders are agriculture, experience and academia through which the AFA scholarships, internships and training programs are implemented. The AFA partnerships with communities, colleges, universities and

companies that support intern opportunities, leadership development and scholarships which foster an atmosphere that develops student's professionalism, "intrapreneurialism" and intellectualism, which are key attributes of human capital development (Agriculture Future of America, 2007). AFA defines "intrapreneurialism" as the ability to think with analytical valuation, and challenge colleagues to innovatively surpass limitations as criterion for inimitable advancement (Agriculture Future of America, 2007).

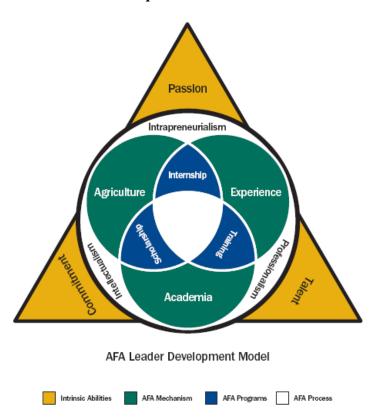


Figure 1.1: AFA Leader Development Model

Since its inception, AFA has provided personal and professional development for more than 5,000 college students attending 70-plus colleges and universities in more than 30 states. AFA has also distributed more than 1,300 scholarships, totaling more than \$5

million (Phillips, 2009). Today, many former AFA participants are involved in the AFA Alliance, an organization offering professional development and networking opportunities. While most AFA Alliance members were involved in AFA, there are a number of young professionals who were not (Phillips, 2009).

1.1.1 AFA Core Competencies

In AFA's effort to prepare college students for careers in the food and agriculture industry, the organization aims to help provide students with a set of core competencies.

Table 1.1: Agriculture Future of America Core Competencies

Self Assessment (collegiate level only)	Communication
Personal Financial Skills	Networking
Goal Setting	Presentation Skills
Time Management	Business Writing
Resume Development	Selling Yourself and Your Ideas
Self-Exploration	Interpersonal Communication
Embracing Change	Lifelong Learning
Systems Thinking in a Global Market	Current Issues and Trends in Agriculture
Change Management	Mentoring
Innovation and Entrepreneurialism	Professional Development
Conflict Management	
Problem Solving/Decision Making	Organizational Leadership (Alliance only)
Valuing Difference and Diversity	Project Management
	People Management
	Professional Financial Skills

1.1.2 The "AFA Advantage"

As AFA has evolved over the last 13 years, the organization has received a lot of positive feedback from both student participants and employers. This feedback has led the organization to believe there is an "AFA Advantage," where former AFA participants have an advantage over their peers when entering the workforce due to their involvement with AFA. Likewise, employers who hire former AFA participants have an "advantage" because

these new hires possess the skills needed to enter the workplace, allowing for fewer company resources to be focused on employee training.

1.2 Research Purpose

The thesis will determine if there is an "AFA Advantage," by measuring former AFA participants' skill sets, as determined by agribusiness employers. To accomplish this purpose, two sub-objectives will be evaluated, measuring the skill competencies of former AFA participants participating in a

- 1. Self assessment
- 2. Comparison with peers, who were not involved in AFA

To meet the purpose and objectives of the thesis, data needed to be collected, evaluated and explained. A chapter in this thesis will discuss these details on data, as well as touch on the limitations of the data. Methods and procedures were also developed to analyze the data and are explained in another chapter.

The results of this thesis may help AFA better demonstrate and gauge its efforts in effectively preparing future generations to enter careers in the food and agriculture industry. In its existence AFA has not conducted a comprehensive evaluation, let alone quantifying an "AFA Advantage." This study may serve as a starting point or a benchmark for future evaluations of the organization.

CHAPTER II: LITERATURE REVIEW

Today's college students need to be more prepared than ever to enter the workforce. Employers are demanding new graduates possess a wide range of skills that are attained outside the classroom, typically through experiences similar to Agriculture Future of America (AFA), including internships, extra curricular activities or even non-traditional teaching methods.

This review of literature will examine recent studies on the topic of career skill preparation from the perspective of the employer and the university; career skill preparation theory; and what employers are looking for in terms of career skill sets for new hires and young professionals.

2.1 Evaluations on career skill preparation in agriculture

The food and agribusiness industry has a vested interest in its future workforce and has been involved in offering feedback on career preparation, particularly to universities and colleges.

A study conducted for the National Food and Agribusiness Education Commission reviewed the current state of food and agribusiness management education programs, as well as reviewed employment needs from food and agribusiness industry leaders (Boland and Akridge, 2006). The 2006 study reviewed curriculum assessment and revision, communication/writing/critical thinking skills, industry linkage, student recruitment for food and agribusiness management programs, introductory and capstone undergraduate

courses, and graduate programs in food and agribusiness management (Boland and Akridge, 2006).

Other industry focused-research included insight from International Agribusiness

Management Association (IAMA) industry members on skills and experiences needed for
recent graduates in agribusiness and international business (Wachenheim and Lesch, 2004).

Universities are also interested in making sure that they are helping prepare students properly for the workplace. The Oregon State University College of Agricultural Sciences has studied the perceptions of employers regarding employment skills and satisfaction with college graduates that they have hired in comparison with those outside the college (Cole and Thompson, 2002).

Miller et al. (2005) conducted a similar study, focusing the competencies of recent college graduates, but surveyed agribusinesses, nationwide, and compared agribusiness graduates to business graduates.

Universities also look to alumni to assist in building career skill sets for undergraduate students. The Oklahoma State University Department of Agricultural Economics engages alumni in the seminar course for agricultural economics and agribusiness students (Williams, 2002). As a part of the course, students interview alumni about their academic background and career path. Students then complete a report and oral presentation about their experiences learning about careers, career preparation and the workplace through the eyes of an alumnus (Williams, 2002).

Many agriculture college students are building valuable leadership skills through involvement in student organizations. These leadership skills are transferable when students graduate and enter the workplace. This was demonstrated through a study with the University of Missouri – Columbia's College of Agriculture (McKinley et al.,1993).

Agriculture youth organizations, including FFA (high school) and 4-H (grade school to high school), have also taken the initiative to evaluate their effectiveness in contributing to members' personal development and career preparation. Balschweid and Talbert (2000) compared FFA members, agricultural education students and a benchmark of "typical high school students" as measured by a Horatio Alger Association study. The FFA study reviewed students' engagement, connections to agriculture, aspirations, value of school, future personal success, agricultural education and FFA involvement by FFA members (Balschweid and Talbert, 2000). Meanwhile, the 4-H organization is part way through a multiyear study evaluating the positive development of its members, reviewing the "Five Cs" of personal youth development: competence, confidence, connection, character and caring (Lerner et al., 2002-2006).

2.2 Theory of career skill sets

In the literature reviewed, career preparation theory touches on the concept of producing college graduates who are ready to enter the workforce, equipped with the desired skills and knowledge as indicated by industry professionals.

Miller et al. (2005) uses the concept of knowledge, skill, ability and trait (KSATs) areas of entry-level college graduates and careers in agribusiness. Based on these

measures, agribusiness managers were able to evaluate strengths and weaknesses of young professionals who recently graduated (Miller et al., 2005). Research suggests that communication and interpersonal skills are valued as most important, even over course content, to employers. However, communication and interpersonal skills are usually rated as weak among recent college graduates by employers (Miller et al., 2005).

Williams (2002) uses the term "society-ready graduates" in his study of undergraduate learning experiences. He defines this concept as graduates who are the product of a strong science-based education who have developed problem solving skills, critical thinking, social literacy, ethics, leadership, written and oral communication skills, international awareness and an appreciation for lifelong learning (Williams, 2002).

2.3 Methods and results from career skill preparation assessment

Studies have reinforced this need for college graduates to possess skill sets beyond knowledge acquired in the traditional classroom. The study conducted for the National Food and Agribusiness Management Education Commission showed that agribusiness executives, in informational interviews and surveys, ranked interpersonal communications and critical thinking as the most important skills (out of 16 capabilities) for new hires (Boland and Akridge, 2006). The results also show knowledge of the food and agribusiness marketplace; accounting and finance; macroeconomics, international trade; and broadbased knowledge in liberal arts ranking near the middle to lower ends of the most desired capabilities for the workplace (Boland and Akridge, 2006).

Miller et al. (2005) also examined this concept, surveying, by mail, agribusiness managers from across the nation to assess the competencies of recent college graduates, comparing agricultural or business degrees. The assessment was based on KSATs competencies, as described earlier. Results showed business graduates rank higher for seven of the 11 KSATS, including speaking effectively; understanding basic business principles; using computer technology; knowledge of cultural/economic differences in international business; understanding the U.S. economy functions; understanding the global nature of business; and understanding the interdependence of business functions/departments (Miller et al., 2005). Agricultural graduates had higher ratings on only two of the 11 KSATs: using good decision-making techniques and demonstrating ethical behavior on a personal level (Miller et al., 2005). Overall, both groups of students received low ratings for their knowledge of cultural and economic differences in international business (Miller et al., 2005).

The need for improved communication skills was also mentioned in an evaluation of desirable employment traits for Oregon State University's College of Agricultural Sciences graduates. Indicated through a survey mailing, employers' top recommendation for improvement was writing skills (Cole and Thompson, 2002). The Wachenheim and Lesch (2004) study surveyed International food and Agribusiness Management Association executives, who also indicated communication and interpersonal skills the most important skills for college graduates entering the workforce. The study also placed a high value on foreign language competency and international agriculture and cultural courses for students interested in pursuing international business career paths (Wachenheim and Lesch, 2004).

Universities are looking for ways to enhance the classroom experience to help better prepare graduates for the workplace. For example, Williams (2002) suggested that students benefited from alumni involvement in the classroom. Specifically, agricultural economics and agribusiness students at Oklahoma State University are required to complete a seminar course, which includes interviewing two alumni and then write a report and give a presentation (Williams, 2002). Williams (2002) claims student benefits included improved communication (writing and speaking) skills, improved career exploration, increased confidence and changes in attitudes about coursework. Based on survey feedback students had a positive experience interacting with alumni, aiding in career exploration (Williams, 2002). Alumni surveyed indicated they were very willing to assist in the process (Williams, 2002).

Outside the classroom, students are gaining leadership skills that are transferable to the skills needed in the workplace. The survey of University of Missouri College of Agriculture students suggests that involvement in student organizations and activities enhances their communication skills (McKinley et al., 1993). This involvement helps college students develop skills needed in their careers after they graduate.

2.4 Conclusion

The literature reviewed in this chapter discussed the skills college graduates need to enter the workplace. The most common theme among the research was the need for graduates to possess strong interpersonal, written and oral communication skills. This research will provide a foundation for evaluating the effectiveness of AFA, an organization that is focused on preparing college students for careers in the food and agriculture

industry. The next chapter will review the methodology and data used to evaluate the AFA advantage by measuring AFA alumni's professional skill sets.

CHAPTER III: CONCEPTUAL MODEL

The hypothesis of this thesis suggests that college students who participated in Agriculture Future of America (AFA) have an "AFA Advantage" when entering the workplace. This advantage arises from skills desired by agribusiness employers, as indicated in the USDA National Food and Agribusiness Management Education Commission report by Boland and Akridge (2006). The conceptual model will determine the relationship between AFA, college and skills desired by agribusiness employers. The model is detailed below.

(1) SKILL_i =
$$f(College, AFA)$$
, $i = 1,...7$

In the equation, SKILL_i is the skill I, where i=1,...,7. This idea is based on the concept that agribusiness employers expect new hires to be competent in a number of skills when they enter the workplace. Many of these competencies are needed for future company leadership positions. The model for new hires with leadership potential includes the following seven core competencies: interpersonal communication skills (IC), critical thinking skills (CT), writing skills (W), knowledge of general business management (KGB), quantitative analysis skills (QA), cultural/gender awareness/sensitivity (CGA), and oral presentation skills (OP). The model follows this equation form:

(3) "AFA Advantage" =
$$\partial SKILL/\partial AFA > 0$$

College experiences (such as student organization involvement and classes) and AFA involvement are hypothesized to influence how competent young professionals are in the skills desired by agribusiness employers. It is proposed the "AFA Advantage" is positive when the derivative of skills is divided by the derivative of AFA, as shown in equation (3).

This model is based on research conducted by the National Food and Agribusiness Management Education Commission, which surveyed 26 business executives in the food and agribusiness industry (Boland and Akridge, 2006). The executives ranked 16 competencies by importance for future company leaders. The seven core competencies listed in the model were rated the highest, all ranking four or higher on a scale of zero to five (Boland and Akridge, 2006).

Interpersonal communication skills (IC) provide employees with an ability to effectively interact with colleagues through word choice, body language, active listening, attention to team dynamics and various types of communication (Boland and Akridge, 2006). Litzenberg and Schneider (1987) also found that interpersonal communication was the most desired competency for new hires by agribusiness managers. College students beginning their careers may possess this competency through extracurricular activities, internships and communications/behavioral management courses.

Critical thinking skills (CT) allow employees to gather information and base decisions on facts (Boland and Akridge, 2006). Boland and Akridge (2006) state that employees should be able to make decisions in ambiguity, which involves identifying the

most important assumptions and recognizing when there is not enough information to make a decision. New hires may have acquired this competency through economic coursework and internships.

Writing skills (W) allow employees to effectively communicate their ideas clearly and effectively in various business-writing styles, such as proposals, emails, memos and reports (Boland and Akridge, 2006). Studies by Wachenheim and Lesech (2004) and Litzenberg and Schneider (1987) also support this competency, showing that agribusiness employers placed a high value on written communication skills in new hires. Recent college graduates may have developed this competency through writing-intensive coursework.

Knowledge of general business management (KGB) practices provides new employees with an understanding of day-to-day business operations and economic concepts, such as finance and marketing. Research conducted by Litzenberg and Schneider (1987) also supports the importance of this competency. New hires may have acquired this competency through business and economics classes, as well as internship experiences.

Quantitative analysis skills (QA) allow employees to evaluate, interpret and explain data. This competency aids in the decision making process and ability to think critically. New employees may have gained this competency through economic, business or managerial coursework, as well as in an internship experience.

Awareness and sensitivity to culture and gender (CGA) provide employees with an open-minded approach to business operations and interaction with colleagues, customers and business partners. New hires may have acquired this competency from previous international/intercultural courses, foreign internship, study abroad, foreign language skill or other related experiences.

Oral presentation skills (OP) allow employees to be confident in their knowledge and judgment, while communicating their position efficiently and influentially (Boland and Akridge, 2006). Wachenheim and Lesech (2004) and Litzenberg and Schneider (1987) also found that strong oral communication skills are considered very important in new hires by agribusiness executives. Recent college graduates entering the workplace may have gained this competency through extracurricular activities and speech communication courses.

CHAPTER IV: PROCEDURES AND METHODS

Procedures and methods were established to meet the purpose of the thesis to determine if there is an "AFA Advantage." The purpose includes evaluating two sub-objectives by measuring the skill competencies of former Agriculture Future of America (AFA) participants through a (1) self assessment and (2) self comparison with peers who were not involved in AFA. The seven skill competencies measured are determined by agribusiness employers.

The data for this thesis was gathered through a qualitative online survey (see Appendix A), targeting 506 former AFA participants from a list provided by AFA staff. The survey had 116 participants, resulting in a 23 percent response rate. In general, the targeted participants were young professionals with less than one year to 13 years of work experience. Their involvement in AFA varied from one to three years, dating from 1996 to 2008.

The survey was administered to the target participants through an email detailing the research for the thesis. The email included a link to the online survey, where participants completed the 31-question survey anonymously. Participants had 15 days to complete the survey. An email reminder was sent midway through the period while the survey was open.

Analysis of the survey serves as the primary method to meet the first thesis subobjective to determine if there is an "AFA Advantage" through a self assessment of career skills by former AFA participants. Survey participants assessed their competencies of seven skill sets in relationship with both their AFA and collegiate experiences. The seven skill sets were determined by agribusiness employers in a 2006 USDA National Food and Agribusiness Education Commission study. In analyzing the data, the mean of each Likert scale question was calculated and reported in descending order. Seven simple regressions were also calculated based on the same survey results in relationship to the AFA experience. The regressions are listed below:

- 1. Interpersonal skills as a function of AFA involvement
- 2. Critical thinking skills as a function of AFA involvement
- 3. Business writing skills as a function of AFA involvement
- 4. Understanding economic concepts and day-to-day business practices as a function of AFA involvement
- Quantitative analysis skills to make effective decisions as a function of AFA involvement
- 6. Awareness to cultural/gender differences as a function of AFA involvement
- 7. Oral presentation skills as a function of AFA involvement

The same survey also served as the base to examine the second sub-objective to determine if there is an "AFA Advantage" by survey participants comparing their skill competencies in relationship with both their AFA and collegiate experiences to their peers who were not involved in AFA. These skill competencies are based on the same seven skill sets determined by agribusiness employers. Results were analyzed by calculating the mean for each Likert scale question and reported in descending order. In addition, seven

simple regressions were also calculated based on these survey results in relationship to the AFA experience. The regressions are listed below:

- 1. Interpersonal skills as a function of AFA involvement
- 2. Critical thinking skills as a function of AFA involvement
- 3. Business writing skills as a function of AFA involvement
- 4. Understanding economic concepts and day-to-day business practices as a function of AFA involvement
- 5. Quantitative analysis skills to make effective decisions as a function of AFA involvement
- 6. Awareness to cultural/gender differences as a function of AFA involvement
- 7. Oral presentation skills as a function of AFA involvement

This chapter outlined the methods needed to accomplish the purpose of this thesis to determine if there is an "AFA Advantage," by evaluating former AFA participants' skill sets as determined by agribusiness employers. These methods allow for analysis of the thesis sub-objectives to measure the skill competencies these former participants through a self assessment and comparison with peers who were not involved in AFA.

CHAPTER V: RESULTS

The thesis results were gathered through the procedures and methods as outlined in the previous chapter. The data analyzed provided answers to the purpose of this thesis in determining if there is an "AFA advantage" by measuring the skill competencies of former Agriculture Future of America (AFA) participants. Specifically, results were gathered through former AFA participants conducting a (1) self assessment and (2) self comparison with peers who were not involved in AFA. The seven skill competencies measured were previously determined by agribusiness employers.

5.1 Profile of survey participants

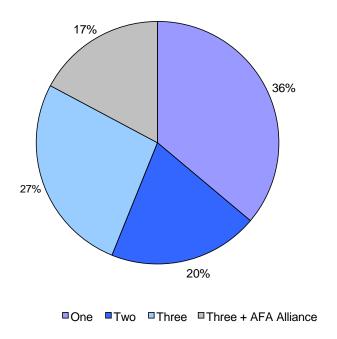
The survey targeted 506 former AFA participants and generated 116 complete respondents (23 percent response rate). Of the respondents, 47 percent were male (55) and 53 percent were female (61).

5.1.1 Collegiate background profile

Specifically examining the collegiate background of the survey respondents, they represented 32 universities and identified 19 states as "home." Some individuals indicated multiple states as "home." The highest concentration of students came from Missouri (36) and Kansas (17), which reflects the high concentration of alumni from the University of Missouri – Columbia (20) and Kansas State University (16). Respondents also ranged in the years of involved in AFA, which is designed to be a three-year experience. The average AFA participation was 2.23 years, with the highest response from one-year participants (36 percent). Other AFA participation included 20 percent involved for two years, 27 percent for three years and 17 percent for three years, plus

involved in the AFA Alliance, a related young professional program (Figure 5.1). Only 29 (25 percent) served in an AFA student leadership position as members of the AFA Student Advisory Team.

Figure 5.1: Years Involved with AFA



The mean education level for participants was a bachelor's degree. Specifically, 75 percent respondents hold a bachelor's degree, 18 percent hold a master's degree, four percent hold an MBA and three percent hold a Ph. D. or comparable degree. During their undergraduate years, the mean amount of internships held was 2.95. All respondents were involved in extracurricular activities, averaging participation in three to four organizations. Overall survey participants strongly agreed (78.45 percent) or agreed (20.69 percent) that they had a positive collegiate experience (Figure 5.2).

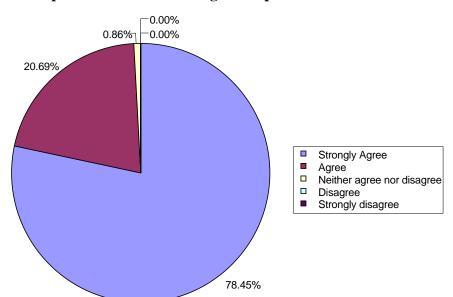
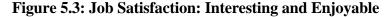
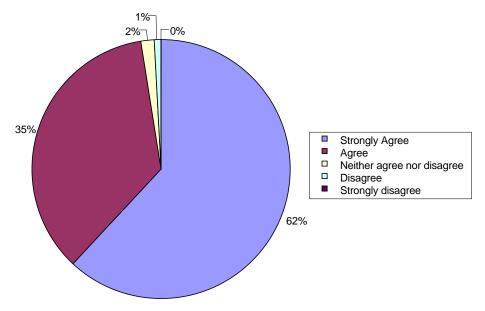


Figure 5.2: Perception of a Positive Collegiate Experience

5.1.2 Professional profile

At the time of the survey, respondents reside in 22 different states, with the highest concentration residing in Missouri (22), Kansas (15) and Iowa (15). They are professionals working in a wide range of industries connected to food and agriculture, including the highest concentrations in education (secondary, higher education) (13 percent), agronomy-related field (15 percent), grain (10 percent) and finance/banking field (nine percent). Participants averaged about 4.64 years of work experience and held 2.7 positions since receiving their undergraduate degree. In addition, respondents have averaged 2.7 career advancements in their professional experience. About 49 percent of respondents have management experience, supervising an average of 18.5 individuals. Nearly 60 percent of respondents have not participated in the AFA Alliance, a young professional association with ties to AFA. Overall, former AFA participants find their current position satisfying, with 62 percent strongly in agreement and 35 percent in agreement (Figure 5.3).





Former AFA participants also rated the value of the workplace competencies most valued by agribusiness employers. Ratings were based on a Likert scale, where five equals "very high value," four equals "somewhat high value," three equals "neither high nor low value," two equals "somewhat low value," and one equals "very low value." The value was analyzed from the perspective of their current position (Figure 5.4). Respondents place a high value (defined as an average score equal to between 4.45 and 5) on interpersonal skills (4.8 mean) and critical thinking skills (4.75 mean). They stated skills that were some what valuable (3.45 to 4.44 mean) to their job included business writing skills (3.92 mean), understanding of economic concepts and day-to-day business practices (4.22 mean), quantitative analysis skills to make decisions (4.41 mean), awareness to cultural and gender differences (3.59 mean) and oral presentation skills (4.34 mean).

Oral presentation skills Awareness to cultural/gender differences Quantitative analysis skills to make decisions Understanding of Skills (mean) economic concepts and day-to-day business practices Business writing skills Critical thinking skills Interpersonal skills 0.00 1.00 2.00 3.00 4.00 5.00 Very low Somewhat Neither high Somewhat high Very high low nor low

Figure 5.4: Value of Skills in the Workplace

5.2 Analysis of survey participants' self assessment

5.2.1 Analysis of AFA involvement

Survey participants self assessed how their AFA involvement contributed to their development of seven workplace skill competencies identified by agribusiness employers (Figure 5.5). Ratings were based on a Likert scale, where five equals "strongly agree," four equals "agree," three equals "neither agree nor disagree," two equals "disagree," and one equals "strongly disagree." On average individuals agreed (defined as an average score equal to between 3.45 and 4.44) their AFA involvement contributed to their oral presentation skills (3.8 mean), awareness of cultural/gender differences (3.7 mean), understanding of economics concepts and day-to-day business practices (3.66 mean), critical thinking skills (3.67 mean), interpersonal skills (4.14 mean), and quantitative

Rating

analysis skills to make decisions (3.47 mean). Survey respondents did not agree or disagree (defined as an average score equal to between 2.45 and 3.44) that AFA helped contribute to their business writing skills (3.27 mean).

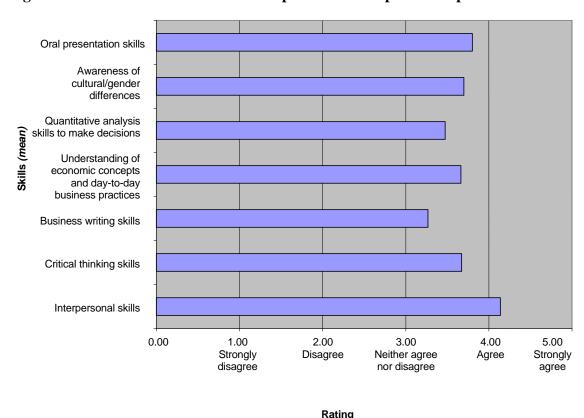


Figure 5.5: AFA: Contribution to Development of Workplace Competencies

By calculating regressions, the survey results were analyzed based on the number of individuals' years of AFA involvement as a function of each skill competency (Appendix B). In all, seven simple regressions were calculated, evaluating each skill competency. Results indicate that as years of AFA involvement increased, respondents increasingly attributed AFA to helping develop their workplace skills in interpersonal skills, understanding of economic concepts and day-to-day business practices, awareness to cultural/gender differences and oral presentation skills. Regressions attempting to examine

critical thinking, business writing and qualitative analysis skills were statistically insignificant because the p-values were greater than 0.10. Therefore no relationship was found between years of involvement and these skill levels.

5.2.2 Summary of AFA involvement

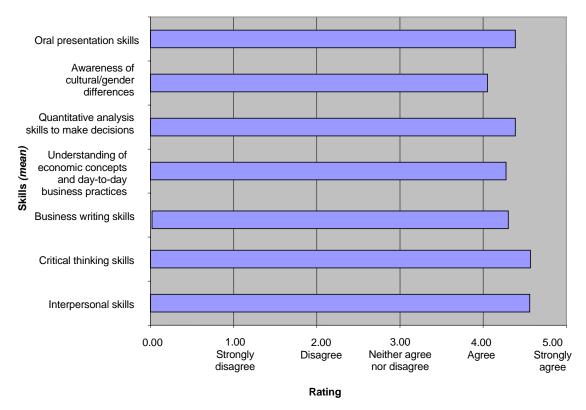
In summary, the results suggest that the AFA positively contributed to participants' development of six of the seven workplace skills, including interpersonal skills, critical thinking skills, understanding economic concepts and day-to-day business practices, quantitative analysis skills to make effective decisions, awareness to cultural/gender differences, and oral presentation skills. However, it isn't clear if AFA contributes to participants' development of business writing skills. Results also suggest that as individuals continue their AFA involvement while in college, they tend to more strongly attribute AFA to the development of four of the seven workplace skills, including interpersonal communication skills, understanding of economic concepts and day-to-day business practices, awareness to cultural/gender differences and oral presentation skills. These specific results suggest that students received the most benefit from AFA by participating in all three tracks (three years) and potentially in the AFA Alliance as a fourth year.

5.2.3 Summary of collegiate involvement

Results suggest that AFA participants' collegiate experiences positively contribute to the development of all seven workplace skills: interpersonal skills, critical thinking skills, understanding economic concepts and day-to-day business practices, business

writing skills, quantitative analysis skills to make effective decisions, awareness to cultural/gender differences, and oral presentation skills.

Figure 5.6: Collegiate Experiences: Contribution Development of Workplace Competencies



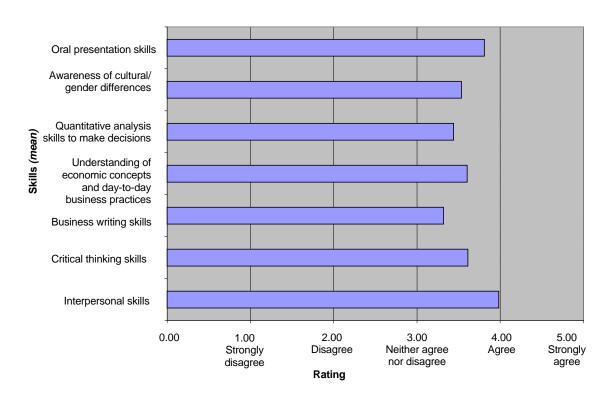
5.3 Analysis of survey participants self comparison with peers not involved in AFA

5.3.1 Analysis of AFA involvement

Survey participants also completed a self comparison of their skill sets as a new hire in relationship with their peers who were not involved in AFA (Figure 5.7). The self comparison evaluated the same seven workplace skills previously discussed. Ratings were based on a Likert scale, where five equals "strongly agree," four equals "agree," three equals "neither agree nor disagree," two equals "disagree," and one equals "strongly disagree." Respondents agreed (defined as an average score equal to between 3.45 and

4.44) that their AFA experiences helped them be more prepared for the workplace than their non-AFA peers, by possessing stronger competencies in oral presentation skills (3.81 mean), awareness of cultural/gender differences (3.57 mean), understanding of economic concepts and day-to-day business practices (3.62 mean), critical thinking skills (3.61 mean), and interpersonal skills (3.98 mean). However, AFA participants somewhat agreed that they were better prepared as a new hire than their non-AFA peers in regard to quantitative analysis skills to make decisions (3.44 mean) and business writing skills (3.34 mean).

Figure 5.7: Assessment on Possessing Stronger Workplace Competencies Attributed to AFA Experiences as Compared to Non-AFA Peers



Results were also analyzed by calculating regressions based on each skill competency as a function of individuals' years of AFA involvement (Appendix B). In all,

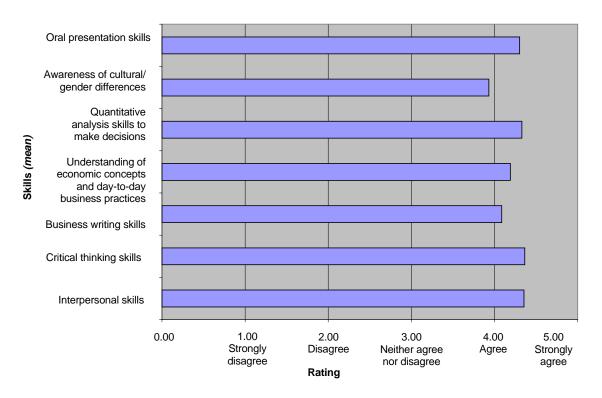
seven simple regressions were calculated, evaluating each skill competency. Results indicated that as participants' years of AFA involvement increased, respondents increasingly agreed that their AFA experience helped them possess a number of stronger workplace skills than their peers who were not involved in AFA. These skills include interpersonal skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, and an awareness of cultural/gender differences. Regressions attempting to examine business writing skills, oral presentation skills and quantitative analysis skills for decision making were statistically insignificant because the p-values were greater than 0.10. Therefore no analysis could be made.

5.3.2. Summary of AFA involvement

The results suggest that AFA does provide its participants an advantage over peers who were not involved in AFA. Respondents agreed that AFA provided them with stronger workplace skills than their peers. Those skills include interpersonal skills, critical thinking skills, understanding economic concepts and day-to-day business practices, oral presentation skills, and awareness to cultural/gender differences. However, it isn't clear if AFA helped participants have stronger quantitative analysis or business writing skills over their peers. The results also suggest that as individuals continue their AFA involvement, they tended to agree more that they possessed stronger workplace skills over their non-AFA peers. Specifically these skills included interpersonal skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, and awareness to cultural/gender differences. These specific results suggest that students receive the most

benefit from AFA by participating in all three tracks (three years) and potentially in the AFA Alliance as a fourth year.

Figure 5.8: Assessment in Possessing Stronger Workplace Competencies Attributed to Collegiate Experiences as Compared to Peers



Survey results were also analyzed by calculating regressions based on each skill competency as a function of individuals' years of AFA involvement. In all, seven simple regressions were calculated, evaluating each skill competency. Results suggest that as participants' years of AFA involvement increased, respondents were less in agreement that their collegiate experiences helped them possess stronger awareness to cultural/gender differences than their peers. Regressions attempting to examine the other six skills (business writing skills, oral presentation skills, quantitative analysis skills, knowledge of economic concepts and day-to-day business practices, and critical thinking skills) were

statistically insignificant because the p-values were greater than 0.10. Therefore no analysis could be made.

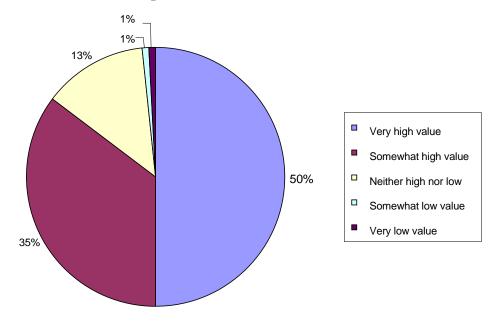
5.3.3 Summary of collegiate experiences

The results indicate that respondents feel they have stronger workplace skills over their peers. These skills are attributed to their collegiate experiences. Specifically, these skills include interpersonal skills, critical thinking skills, understanding economic concepts and day-to-day business practices, oral presentation skills, quantitative analysis, business writing skill, and awareness to cultural/gender differences. The results also suggest that as individuals continue their AFA involvement, they tended to feel their collegiate involvement attributed less to their cultural/gender awareness.

5.4 Other impressions of AFA

Former AFA participants were also surveyed about their perceptions of AFA value, if there is an "AFA Advantage," and the future direction of AFA. Ratings were based on a Likert scale, where five equals "strongly agree," four equals "agree," three equals "neither agree nor disagree," two equals "disagree," and one equals "strongly disagree." Overall, the mean score for each skill competency was categorized as "agree" or "strongly agree." Respondents indicated they highly value their AFA experience, with 50 percent rating it as "very high value" and 35 percent rating it as "somewhat high value" (Figure 5.9). In addition, when asked if they though there is an "AFA Advantage," 84.48 percent said yes, while 15.52 percent said no.

Figure 5.9: Value of AFA Experience



As young professionals, the former AFA participants rated the workplace competencies that they feel AFA should focus (Figure 5.10). Ratings were based on a Likert scale, where five equals "strongly agree," four equals "agree," three equals "neither agree nor disagree," two equals "disagree," and one equals "strongly disagree." Overall the mean score for each skill competency was categorized as "agree" or "strongly agree." They only strongly agreed (defined as an average score equal to between 4.45 and 5) that AFA should focus on developing participants' interpersonal skills (4.69 mean), oral presentation skills (4.64 mean) and critical thinking skills (4.49 mean). The other five workplace competencies were rated slightly lower, indicating they "agree" (defined as an average score equal to between 3.45 and 4.44) AFA should focus on helping develop business writing skills (3.88 mean), knowledge of general knowledge of economic

concepts and day-to-day business practices (4.17 mean), quantitative analysis skills for decisions making (4.26 mean), and cultural and gender awareness (3.81 mean).

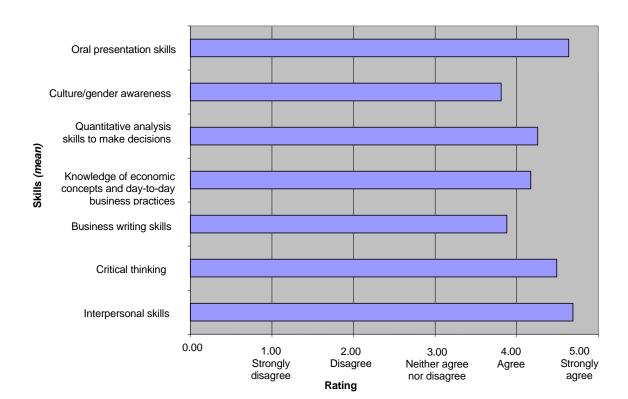
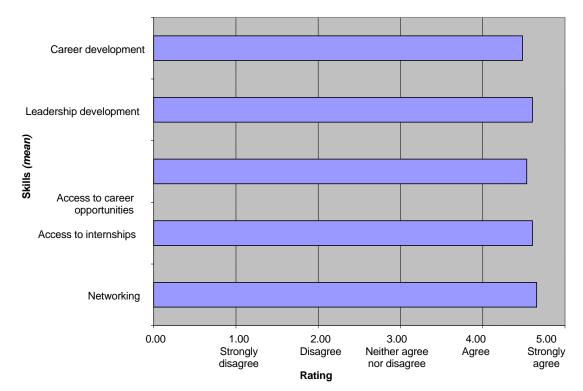


Figure 5.10: Future AFA Focus: Workplace Competencies

Meanwhile, former AFA participants also rated how AFA should focus in relationship to leadership and careers (Figure 5.11). Ratings were based on a Likert scale, where five equals "strongly agree," four equals "agree," three equals "neither agree nor disagree," two equals "disagree," and one equals "strongly disagree." Overall the mean score for each skill competency was categorized as "agree" or "strongly agree." Overall, they strongly agreed (defined as an average score equal to between 4.45 and 5) that AFA

should help its students provide networking opportunities (4.66 mean), access to internships (4.6 mean), access to career opportunities (4.53 mean), leadership development (4.6 mean) and career development (4.48 mean).





CHAPTER VI: CONCLUSION

As Agriculture Future of America (AFA) has evolved since it's inception in 1996, the organization has received a lot of positive feedback from both participating students and employers. The feedback has led the organization to believe there is some type of "AFA Advantage," where AFA participants have an advantage over their peers when entering the workforce due to their AFA involvement. The purpose of this thesis was to determine if there is an "AFA Advantage," by measuring former participants' workplace skill sets, as determined by agribusiness employers. To accomplish this purpose, two sub-objectives were evaluated, measuring the skill competencies of former AFA participants participating in a (1) self assessment and (2) comparison with peers, who were not involved in AFA.

To meet the first sub-objective, former AFA participants completed a survey, self assessing how their AFA involvement contributed to their development of seven workplace skill competencies identified by agribusiness employers: interpersonal communication skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, quantitative analysis skills to make decisions, awareness to cultural/gender differences, business writing skills and oral presentation skills. Participants agreed (mean of 3.45 to 4.44 on a scale of 1 to 5, with five as the highest) that AFA helped contribute to the development of six out of seven of the workplace skills previously listed. Business writing was the only skill that participants rated as "neither agree nor disagree" (value of 2.45 to 3.44). Simple regression results also indicate that as individuals increase their years of AFA involvement, they also tend to more strongly attribute AFA to the development of

four out of the seven workplace skills (interpersonal communication skills, understanding of economic concepts and day-to-day business practices, awareness to cultural/gender differences, and oral presentation skills). To provide a broader perspective, former AFA participants also self assessed how their collegiate experiences contributed to the development of the same workplace skill competencies. In this analysis, individuals agreed that their collegiate experiences helped develop all seven of the workplace skills.

The second sub-objective was met through former participants comparing their workplace skills (same as earlier listed) with their peers who were not involved in AFA through a survey tool. Analysis of responses indicates that individuals feel they have an advantage over their peers due to their AFA experiences. Former participants agree that AFA provided them with stronger interpersonal communication skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, oral presentation skills, and awareness to cultural/gender differences. However, participants do not feel that AFA has or has helped them possess stronger quantitative analysis or business writing skills. Simple regression results also suggest that as individuals continue their AFA involvement, they tended to agree more that they possess stronger workplace skills over their non-AFA peers. These skills include interpersonal communication skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, and awareness to cultural/gender difference. As with the first sub-objective, participants also assessed how their collegiate experiences attributed to their workplace skills in comparison to their peers. Participants indicated their collegiate experiences helped them develop stronger workplace skills (all seven skills) over their peers.

Based on the research findings, there is an "AFA Advantage" demonstrated through past participants' self assessment. The study suggests that AFA contributes to its participants' development of workplace skills in interpersonal communication skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, quantitative analysis skills to make decisions, awareness to cultural/gender differences, and oral presentation skills. The data also suggests that AFA participants possess stronger workplace skills than non-AFA participants. These skills include interpersonal communication skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, awareness to cultural/gender differences, and oral presentation skills. Simple regression analysis also suggests that students should continue their AFA involvement – participating in all three tracks, with the optional fourth year in the AFA Alliance – to maximize the full advantages of AFA. The data shows that as participants increase their AFA involvement, their responses become more positive to attributing AFA to their skill development and believing they have stronger workplace skills than their non-AFA peers. Other survey data gathered indicated that 84.48 percent of participants believe there is an "AFA Advantage." Overall, a majority of participants rated their AFA experience has a high value (50 percent) and somewhat high value (35 percent).

As a result of this research, two implications were identified. First, it is important to call attention to the positive value of participants continuing their AFA involvement throughout college. In order for students to maximize their AFA experience, AFA staff will need to strongly encourage participation in all three tracks throughout college. The second implication is that it is not evident if AFA is helping its participants develop their business

writing skills. It also is not clear if AFA participants have stronger quantitative analysis skills for decision making. As an organization, AFA will need to determine if these skill competencies are an opportunity for growth or if they are not priority competencies.

This thesis also provided insight for future research opportunities, which includes:

- Utilizing a non-AFA participant group as a benchmark for comparing workplace skills assessment results.
- 2. Providing an analysis of workplace skills from the current supervisors of the former AFA participants.
- 3. Evaluating other attributes that may contribute to the "AFA Advantage," such as other skills desired by employers, networking, internship/job opportunities, etc.
- 4. Examining the AFA Alliance as a professional development organization for young professionals (including former AFA participants). There is limited involvement from former AFA participants. Future research could explore the opportunities and examine the current limitations.

As AFA continues to help prepare college students for careers in the food and agriculture industry, the organization will need to continue to assess its capabilities to meet the human capital needs of agribusiness employers. However, research conducted for this thesis does demonstrate that AFA does provide an advantage to its college student participants. AFA is positively attributing to the development of students' workplace skill competencies, which are identified by agribusiness employers. AFA must continue to work

closely with agribusiness employers to ensure it is most effectively preparing college students for leadership positions in the food and agriculture industry.

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APPENDIX A: FORMER AFA PARTICIPANT SURVEY

As a young professional, who has been involved with Agriculture Future of America (AFA), we would like your feedback on your experiences and how it has influenced your career preparation and development.

Leslie Shuler Svacina, Kansas State University master in agribusiness student, is conducting research for her thesis to measure how former AFA participants meet skill competencies desired by agribusiness employers. All individual data will be treated in a confidential manner. The multiple choice survey should take about 6 to 8 minutes to complete.

If you'd like more information about the research or the thesis, contact Svacina at lshuler@ksu.edu.

Statement Regarding Research

This project is research, and your participation is completely voluntary. If you decide to participate in this study, you may withdraw your consent at any time, and stop participating at any time without explanation or penalty.

If you understand your consent as described above and are willing to participate in this study, please begin the survey.

Demog	graphic Questions
1.	Indicate your sex:
	□ Male
2.	Indicate the state in which you grew up:
2	
3.	Indicate the state in which you live:
4.	Indicate your undergraduate graduation year:
5.	Indicate the university where you received your bachelor's degree:
6.	Specify your major:

7.	Indicate your highest level of education: □ B.S./B.A. □ M.S./M.A./M.Ed. □ MBA □ Ph.D./Ed. D.
	How many years were you involved in AFA? ☐ One ☐ Two ☐ Three ☐ Three plus participation in AFA Alliance (during undergrad years or as a young professional)
9.	If you served on the AFA Student Advisory Team, indicate the number of years: None One year Two years Three years
10.	Indicate the number of internships you held while in college ☐ None ☐ One ☐ Two ☐ Three ☐ Four or more
11.	How many student organizations/extra curricular activities were you involved with during your undergraduate experience, excluding AFA? ☐ None ☐ One to two ☐ Three to four ☐ Five or more

14. Indicate the number of positions you've held since college graduation (includes
moves within one company)
□ One
\Box Two
□ Three
□ Four
□ Five
□ Eight
□ Nine
□ 11 or more
15. Number of promotions/career advances since entering the workplace.
☐ Zero
□ Three
□ Five
□ Six
□ Seven
□ Eight
□ Nine
□ Ten
□ 11 or more
16 D
16. Do you manage people?
☐ Yes, If yes how many?
17. If you have been involved in the AFA Alliance, indicate the number of years.
□ Not applicable
□ One
□ Three
□ Four
□ Five
\Box Six
□ Seven
□ Eight
□ Nine
☐ Ten or more

Career Skills, AFA and Collegiate Questions

18. SKILLS VALUE IN THE WORKPLACE: How valuable are these skills and/or attributes in your daily job?

	Very low value	Somewhat low value	Neither high nor low	Somewhat high value	Very high value
Interpersonal skills					
Critical thinking skills					
Business writing skills					
Understanding of economic concepts					
and day-to-day business practices.					
Quantitative analysis skills to make					
effective decisions.					
Awareness to cultural/gender					
differences					
Oral presentation skills					

19. AGRICULTURE FUTURE OF AMERICA: As a result of participating in AFA, I entered the workplace with stronger:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Interpersonal skills					
Critical thinking skills					
Business writing skills					
Understanding of economic concepts and					
day-to-day business practices.					
Quantitative analysis skills to make					
effective decisions.					
Awareness to cultural/gender differences					
Oral presentation skills					

20. COLLEGE: As a result of my collegiate experiences (classes, extracurricular activities, etc.), I entered the workplace with stronger

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Interpersonal skills					
Critical thinking skills					
Business writing skills					
Understanding of economic concepts and					
day-to-day business practices.					
Quantitative analysis skills to make					
effective decisions.					
Awareness to cultural/gender differences					
Oral presentation skills					

21. PEER COMPARISON: AFA: As a new hire, I feel my AFA experience helped me be more prepared to enter the workplace over my peers or colleagues (in similar positions or comparable levels) who did not participate in AFA because I possessed stronger:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Interpersonal skills	,				
Critical thinking skills					
Business writing skills					
Understanding of economic concepts and					
day-to-day business practices.					
Quantitative analysis skills to make					
effective decisions.					
Awareness to cultural/gender differences					
Oral presentation skills					

22. PEER COMPARISON: COLLEGE: As a new hire, my collegiate experience helped me be more prepared to enter the workplace over my peers or colleagues in similar positions or comparable levels because I possessed stronger:

simmar positions of comparable leve	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Interpersonal skills					
Critical thinking skills					
Business writing skills					
Understanding of economic concepts and					
day-to-day business practices.					
Quantitative analysis skills to make					
effective decisions.					
Awareness to cultural/gender differences					
Oral presentation skills					

23. AFA VALUE: Your AFA experience provided you with valuable:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Networking			_		
opportunities					
Access to					
internships					
Access to					
career					
opportunities					
Leadership					
development					
Career					
development					

24. Overall, how do you feel about your experience with AFA? ☐ Very low value ☐ Somewhat low value ☐ Neither high nor low ☐ Somewhat high value
☐ Very high value
25. Overall, you had a positive, worthwhile collegiate experience. ☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree.

26. O	verall, you find your current position interesting and enjoyable.
	Strongly disagree
	Disagree
	Neither agree nor disagree
	Agree
	Strongly Agree.

27. In order for AFA to prepare college students for the workplace, where do you feel the organization should focus?

	Very important	Somewhat important	Neither high nor low importance	Somewhat important	Very important
Networking					
opportunities					
Access to					
internships					
Access to					
career					
opportunities					
Leadership					
development					
Career					
development					

28. In order for AFA to prepare college students for careers, what skills should the organization focus on?

	Very important	Somewhat important	Neither high nor low importance	Somewhat important	Very important
Interpersonal skills					
Critical thinking skills					
Business writing skills					
Understanding of economic					
concepts and day-to-day business					
practices.					
Quantitative analysis skills to make					
effective decisions.					
Awareness to cultural/gender					
differences					
Oral presentation skills					

29.	Do you believe there is an AFA advantage?
	□ Yes
	\square No
30.	Please provide any other comments about your AFA experience and how it helped prepare you to enter the workplace.

APPENDIX B: REGRESSION RESULTS

Regression Results: Self Assessment of AFA Experience

Interpersonal communication skills as a function of AFA involvement

X=AFA Years

Regression Statistics							
Multiple R	0.357416						
R Square Adjusted R	0.127746						
Square	0.120095						
Standard Error	0.709511						
Observations	116						

Interpersonal skills equals the variable of 0.240137 times the number of years in AFA plus 3.597622

	df	SS	MS	F	Significance F
Regression	1	8.404802744	8.404803	16.69587	8.19185E-05
Residual	114	57.3883007	0.503406		
Total	115	65.79310345			

		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.597622	0.147733153	24.35217	5.44E-47	3.304964057	3.890281	3.3049641	3.89028052
X Variable 1	0.240137	0.058769903	4.086058	8.19E-05	0.123714499	0.35656	0.1237145	0.35655994

Critical thinking skills as a function of AFA involvement

SUMMARY OUTPUT	Y=CT
----------------	------

X=AFA Years

Regression S	Statistics
Multiple R	0.11912
R Square Adjusted R	0.014189
Square	0.005542
Standard Error	0.808289
Observations	116

X is not statistically significant.

	df	SS	MS	F	Significance F
Regression	1	1.072041166	1.072041	1.640886	0.202803694
Residual	114	74.47968297	0.653331		
Total	115	75.55172414			

		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.479446	0.168300418	20.67402	2.27E-40	3.146044562	3.812848	3.1460446	3.8128482
X Variable 1	0.085763	0.066951791	1.280971	0.202804	-0.04686769	0.218394	-0.0468677	0.21839427

Business writing skills as a function of AFA involvement

SUMMARY	OUTPUT	X=BW

X=AFA Years

Regression Statistics					
Multiple R	0.015938				
R Square	0.000254				
Adjusted R Square	-0.00852				
Standard Error	0.851699				
Observations	116				

X is not statistically significant.

	df	SS	MS	F	Significance F
Regression	1	0.021012007	0.021012	0.028966	0.865158132
Residual	114	82.69450523	0.72539		
Total	115	82.71551724			

	Standard					Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.294257	0.177339146	18.57603	2.82E-36	2.942949346	3.645564	2.9429493	3.64556429
X Variable 1	-0.01201	0.070547499	-0.1702	0.865158	-0.15176091	0.127747	-0.1517609	0.12774719

Understanding economic concepts and day-to-day business practices as a function of AFA involvement

SUMMARY OUTPUT		Y=KGB X=AFA Years	Y=0.121784x + 3.389779
Regression	Statistics		
Multiple R	0.162474		
R Square Adjusted R	0.026398		economic practices/knowledge of day to day business e of 0.121784 times the number of years in AFA plus
Square	0.017857	3.389779	·
Standard Error	0.836273		

ANOVA

Observations

116

	df	SS	MS	F	Significance F
Regression	1	2.161663808	2.161664	3.090947	0.081412809
Residual	114	79.72626723	0.699353		
Total	115	81.88793103			

	Standard			Upper	Lower	Upper		
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.389779	0.174127354	19.46724	4.8E-38	3.044834445	3.734724	3.0448344	3.73472432
X Variable 1	0.121784	0.069269812	1.758109	0.081413	-0.01543908	0.259007	0.0154391	0.25900684

Quantitative analysis skills to make effective decisions as a function of AFA involvement

SUMMARY OUTPUT	Y=QA
SUMMARY OUTPUT	Y=QA

X=AFA Years

Regression Statistics					
Multiple R	0.093659				
R Square Adjusted R	0.008772				
Square	7.71E-05				
Standard Error	0.762817				
Observations	116				

X is not statistically significant.

					Significance
	df	SS	MS	F	F
Regression	1	0.587049743	0.58705	1.008869	0.317301248
Residual	114	66.33536405	0.581889		
Total	115	66.92241379			

	Standard			Upper	Lower	Upper		
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.331342	0.158832307	20.97396	6.16E-41	3.016696481	3.645988	3.0166965	3.64598761
X Variable 1	0.063465	0.063185271	1.004425	0.317301	-0.06170469	0.188634	0.0617047	0.18863437

Awareness to cultural/gender differences as a function of AFA involvement

SUMMARY OUTPUT		Y=Gender and cultural awareness Y=0.169811x + 3.3162
		X=AFA Years
Regression S	Statistics	
Multiple R	0.228579	
R Square	0.052248	
Adjusted R		Gender and cultural awareness equals the variable of 0.169811 times the
Square	0.043935	number of years in AFA plus 3.3162
Standard Error	0.817768	
Observations	116	

	df	SS	MS	F	Significance F
Regression	1	4.202830189	4.20283	6.284662	0.01358805
Residual	114	76.23682498	0.668744		
Total	115	80.43965517			

-		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.3162	0.170274136	19.47566	4.62E-38	2.978888649	3.653512	2.9788886	3.65351213
X Variable 1	0.169811	0.067736959	2.506923	0.013588	0.035624932	0.303998	0.0356249	0.30399771

Oral presentation skills as a function of AFA involvement

Y=Oral presentation

SUMMARY OUTPUT skills Y=0.00172x + 3.126338

X=AFA Years

Regression Statistics					
Multiple R	0.381061				
R Square Adjusted R	0.145207				
Square	0.137709				
Standard Error	0.823488				
Observations	116				

Oral presentation skills equals the variable of 0.169811 times the number of years in AFA plus $3.3162\,$

	df	SS	MS	F	Significance F
Regression	1	13.13250429	13.1325	19.36568	2.44233E-05
Residual	114	77.30715088	0.678133		
Total	115	90.43965517			

		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.126338	0.171465251	18.23307	1.39E-35	2.786666873	3.46601	2.7866669	3.46600953
X Variable 1	0.300172	0.068210797	4.400645	2.44E-05	0.165046467	0.435297	0.1650465	0.43529659

Interpersonal communication skills as a function of AFA involvement

X=AFA Years

Regression S	tatistics
Multiple R	0.38025197
R Square	0.14459156
Adjusted R Square	0.13708798
Standard Error	0.83968925
Observations	116

Interpersonal skills equals the variable of 0.305317 times the number of years

in AFA plus 3.295795

					Significance
	df	SS	MS	F	F
Regression	1	13.58662093	13.58662	19.26967	2.54956E-05
Residual	114	80.37889632	0.705078		
Total	115	93.96551724			

		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.29579464	0.174838594	18.8505	7.95E-37	2.949440745	3.6421485	2.949441	3.64214854
X Variable 1	0.30531732	0.069552751	4.389723	2.55E-05	0.167533865	0.4431008	0.167534	0.44310078

Critical thinking skills as a function of AFA involvement

	X=AFA Years	
Regression Statistics		

Y=CT

1 togression of	anonos
Multiple R	0.23591166
R Square	0.05565431
Adjusted R Square	0.04737058
Standard Error	0.87081498
Observations	116

SUMMARY OUTPUT

Critical thinking skills equals the variable of 0.186964 times the number of years in A.F.A. plus 2.4044

Y=0.186964x + 3.1914

in AFA plus 3.1914

	df	SS	MS	F	Significance F
Regression	1	5.094768439	5.094768	6.718505	0.010790189
Residual	114	86.44833501	0.758319		
Total	115	91.54310345			

		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.19140001	0.181319537	17.60097	2.72E-34	2.832207417	3.5505926	2.8322074	3.55059261
X Variable 1	0.18696398	0.072130943	2.592008	0.01079	0.044073142	0.3298548	0.0440731	0.32985482

Business writing skills as a function of AFA involvement

SUMMARY OUTPUT	Y=W
SUMMART OUTPUT	1 = v v

X=AFA Years

Regression St	tatistics
Multiple R	0.0892123
R Square	0.00795883
	-
Adjusted R Square	0.00074328
Standard Error	0.86613069
Observations	116

					Significance
	df	SS	MS	F	F
Regression	1	0.686106346	0.686106	0.914586	0.340924177
Residual	114	85.52079021	0.750182		
Total	115	86.20689655			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.19045366	0.180344183	17.69092	1.78E-34	2.833193233	3.5477141	2.8331932	3.54771408
X Variable 1	0.06861063	0.071742936	0.95634	0.340924	-0.07351156	0.2107328	0.0735116	0.21073283

Economic concepts and day-to-day business practices as a function of AFA involvement

Y=KGB	Y=0.144082x + 3.296504
X-AFA Years	

Regression Statistics							
Multiple R	0.18203505						
R Square Adjusted R	0.03313676						
Square	0.0246555						
Standard Error	0.88001503						
Observations	116						

Knowledge of economic concepts and day-to-day business practices equals the variable of 0.144082 times the number of years in AFA plus 3.296504

	df	SS	MS	F	Significance F
Regression	1	3.025728988	3.025729	3.907058	0.050498388
Residual	114	88.28461584	0.774426		
Total	115	91.31034483			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	<i>Upper</i> 95.0%
Intercept	3.29650441	0.183235156	17.99057	4.32E-35	2.933516986	3.6594918	2.933517	3.65949183
X Variable 1	0.14408233	0.072892997	1.976628	0.050498	-0.00031813	0.2884828	0.0003181	0.28848279

Qualitative analysis skills for decision making as a function of AFA involvement

SUMMARY OUTPUT	Y=QA
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X=AFA Years

Regression Statistics							
Multiple R	0.13149325						
R Square	0.01729047						
Adjusted R Square	0.00867022						
Standard Error	0.83342646						
Observations	116						

X is not statistically significant

					Significance
	df	SS	MS	F	<u> </u>
Regression	1	1.3932247	1.393225	2.005795	0.159425714
Residual	114	79.18436151	0.6946		
Total	115	80.57758621			

		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	3.21967233	0.173534566	18.55349	3.13E-36	2.875901697	3.563443	2.8759017	3.56344295
X Variable 1	0.09777015	0.069033994	1.416261	0.159426	-0.03898565	0.234526	-0.0389857	0.23452596

Awareness of culture/gender differences as a function of AFA involvement

X=AFA Years

Regression Statistics						
Multiple R	0.19177024					
R Square	0.03677583					
Adjusted R Square	0.02832649					
Standard Error	0.89332251					
Observations	116					

Cultural/gender awareness equals the variable of 0.154374 times the number of

years in AFA plus 3.221624

					Significance
	df	SS	MS	F	F
Regression	1	3.473413379	3.473413	4.352511	0.039184668
Residual	114	90.97486248	0.798025		
Total	115	94.44827586			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
	Coemcients	EHUI	l Slal	r-value	Lower 95%	90%	90.0%	95.0%
Intercept	3.22162418	0.186006015	17.32	1.04E-33	2.853147708	3.5901007	2.8531477	3.59010065
X Variable 1	0.15437393	0.073995276	2.086267	0.039185	0.00778986	0.300958	0.0077899	0.300958

Oral presentation skills as a function of AFA involvement

SUMMARY OUTPUT	Y=OP
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X=AFA Years

Regression S	tatistics
Multiple R	0.5002491
R Square	0.25024916
Adjusted R Square	0.2436724
Standard Error	0.78554547
Observations	116

	df	SS	MS	F	Significance F
Regression	1	23.48027444	23.48027	38.05051	1.07903E-08
Residual	114	70.34731176	0.617082		
Total	115	93.82758621			

		Standard				Upper	Lower	Upper
	Coefficients	Error	t Stat	P-value	Lower 95%	95%	95.0%	95.0%
Intercept	2.90725735	0.163564872	17.77434	1.2E-34	2.583236608	3.2312781	2.5832366	3.23127809
X Variable 1	0.40137221	0.065067938	6.16851	1.08E-08	0.272473132	0.5302713	0.2724731	0.53027129