

The Impact of Agriculture Future of America (AFA) Participation on Workplace Skills

Leslie Shuler Svacina¹ and Andrew Barkley²
Kansas State University
Manhattan, KS 66506-4011



Abstract

This research investigates the impact of student involvement in the Agriculture Future of America (AFA) on workplace skills, by quantifying former AFA participants' self-reported workplace skill sets, as defined by agribusiness employers. The analysis is based on survey results from former AFA participants. The conceptual model examined the relationship between AFA, college, and the skills desired by agribusiness employers. The skills measured include interpersonal communication skills, critical thinking skills, writing skills, knowledge of general business practices, quantitative analysis skills, cultural/gender awareness, and oral presentation skills. Former participants attributed AFA as helping them develop workplace skills. As AFA involvement increased, individuals agreed more that AFA contributed to their workplace skill competencies.

Introduction

The Agriculture Future of America (AFA) is a nonprofit organization that 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.

AFA began in 1996 through the efforts of R. Crosby Kemper and agribusiness leaders in Kansas City, Missouri (Weathers, R. personal communication). These individuals identified 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. 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 connects 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, a

four-day development conference that provides students with a unique opportunity to interact with agriculture and food industry professionals through session speakers, roundtable discussions, and other networking experiences.

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). 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; Weathers, 2008). The AFA believes that 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 may 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. This research investigates the possibility of an "AFA Advantage." The results may help AFA and other college-level agricultural organizations better demonstrate their efforts in effectively preparing future generations to enter careers in the food and agriculture industry.

Many 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 broad-based 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 by using mailed surveys to agribusiness managers from across the nation to assess the competencies of recent college graduates, comparing agricultural or business degrees. The authors used the concept of knowledge,

¹Former MAB student, Department of Agricultural Economics

²Professor, Department of Agricultural Economics

The Impact

skill, ability, and trait (KSATs) areas of entry-level college graduates and careers in agribusiness. 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).

Outside the classroom, students gain 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.

This study investigates the hypothesis that college students who participated in Agriculture Future of America (AFA) may have an “AFA Advantage” when entering the workplace. Survey

respondents with AFA experience reported their self-assessment of the importance of seven job-related skills, and the importance of AFA in the development of those skills.

Materials and Methods

A survey was conducted to find the degree to which survey respondents with AFA experience self-assessed the importance of seven job-related skills. The survey also asked respondents for their beliefs of the importance of AFA in the development of those skills. Simple regressions were estimated to estimate the statistical relationship between the number of years of AFA involvement and the self-reported level of career skills. Lastly, the survey results were used to investigate the possibility of an “AFA Advantage” when entering the workplace, by interpreting the simple regression results for the self-assessed levels of skills relative to non-AFA participants.

The data for this research were gathered through a qualitative online survey, targeting the population of 506 former AFA participants from a list provided by AFA staff. These individuals were selected because they are the alumni, which AFA still has current contact information. Additionally, these participants were selected because they were involved with AFA during the span of time when the organization was established (1996) to the year before the study was conducted (2008).

The survey had 116 participants, resulting in a 23% 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 e-mail detailing the research (Svacina, 2009). The e-mail included a link to the online survey, where participants completed the 31-question survey anonymously. Participants had 15 days to complete the survey. An e-mail reminder was sent midway through the period while the survey was open.

The survey measured the possibility of an “AFA Advantage” by asking former AFA participants to self-assess the level of career skills. Note that this measurement of the AFA advantage is based solely on self-assessed survey question results. While the results provide important information about how former AFA participants feel about their experience with the organization, the survey results are limited to AFA participants only. A survey on non-AFA participants would provide additional useful information, but was beyond the scope of the current study.

This AFA advantage could arise 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 in equation (1) specifies this possible relationship between AFA, college,

Table 1. Agriculture Future of America Core Competencies

Self Assessment (collegiate level only)

Personal Financial Skills
Goal Setting
Time Management
Resume Development
Self-Exploration

Communication

Networking
Presentation Skills
Business Writing
Selling Yourself and Your Ideas
Interpersonal Communication

Embracing Change

Systems Thinking in a Global Market
Change Management
Innovation and Entrepreneurialism
Conflict Management
Problem Solving/Decision Making
Valuing Difference and Diversity

Lifelong Learning

Current Issues and Trends in Agriculture
Mentoring
Professional Development

Organizational Leadership (Alliance only)

Project Management
People Management
Professional Financial Skills

Source: Weathers, R., 2008.

and skills desired by agribusiness employers: skills are determined by college activities and AFA involvement.

$$(1) \text{ SKILL} = f(\text{College, AFA})$$

In the equation, SKILL represents seven skills, 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 leadership positions within a company. 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). Thus, the variable SKILL can be written as the seven individual skills: SKILL = IC, CT, W, KGB, QA, CGA, OP.

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. While the seven skills are expected to be a function of both college activities, including academics, and AFA experience, this study focused only on the potential impact of AFA on skill development. Academics and other college activities are crucial to skill development, but are not considered in this research. We hypothesize that the "AFA Advantage" exists when skill levels increase due to larger number of years involved in AFA, as shown in equation (2).

$$(2) \text{ "AFA Advantage"} = \text{SKILL}/\text{AFA} > 0$$

The seven core competencies listed in the model were rated the greatest in importance of 16 competencies, all ranking four or greater 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). Critical thinking skills (CT) allow employees to gather information and base decisions on facts (Boland and Akridge, 2006).

Writing skills (W) allow employees to successfully communicate their ideas clearly and effectively in various business-writing styles, such as proposals, e-mails, memos and reports (Boland and Akridge, 2006). 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. Quantitative analysis skills (QA) allow employees to evaluate, interpret and explain data. 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. 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).

Survey participants assessed their competencies of seven skill sets in relationship with both their AFA and collegiate experiences. In analyzing the data with Excel software, the mean of each Likert scale question was calculated and reported. Seven simple regressions also were calculated based on the survey results in relationship to the AFA experience to test the impact of AFA experience (AFA) on the self-reported skill level (SKILL). The regression models are shown in equation (3) below:

$$(3) \text{ SKILL} = \alpha + \beta(\text{AFA}) + u$$

Where SKILL is the seven self-reported skills, alpha is the estimated regression intercept term, beta is the estimated coefficient on AFA, and u is the disturbance, or error, term. The variable AFA is measured as years of experience in AFA, as explained below. Note that the beta coefficient is described in equation (2): the change in skill level, given a change in the number of years of involvement in AFA.

Results and Discussion

Of the respondents, 47% were male (55) and 53% were female (61). The survey respondents represented 32 universities and identified 19 states as "home." Some individuals indicated multiple states as "home." The greatest concentration of students came from Missouri (36) and Kansas (17), which reflects the large concentration of alumni from the University of Missouri – Columbia (20) and Kansas State University (16). Respondents also ranged in the years involved in AFA, which is designed to be a three-year experience. The average AFA participation was 2.2 years, with the greatest response from one-year participants (36%). Other AFA participation included 20% for two years, 27% for three years and 17% for three years, plus involvement in the AFA Alliance, a related young professional program. Only 29 (25%) served in an AFA student leadership position as members of the AFA Student Advisory Team.

The mean education level for participants was a bachelor's degree. Specifically, 75% of the respondents held a Bachelor's degree, 18% held a Master's degree, 4% held an MBA and 3% held a Ph.D. or comparable degree at the time of the survey. During their undergraduate years, the mean number of internships held was 3.0. All respondents were involved in extracurricular activities, averaging participation in three to four organizations. Overall survey participants strongly agreed (78.5%) or agreed (20.7%) that they had a positive collegiate experience.

At the time of the survey, respondents lived in 22 different states, with the greatest 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 greatest concentrations in education (secondary, greater education) (13%), agronomy-related field

The Impact

(15%), grain (10%) and finance/banking field (9%). Participants averaged 4.6 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% of respondents have management experience, supervising an average of 18.5 individuals. Nearly 60% 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% strongly in agreement and 35% in agreement.

Former AFA participants rated (Likert scale, 0=not important to 5=very important) the value of the seven workplace competencies most valued by agribusiness employers. The value was analyzed from the perspective of their current position. Respondents placed relatively high value (mean >4.4) on interpersonal skills (4.8 mean) and critical thinking skills (4.8 mean). They stated skills that were somewhat valuable (mean >3.4 and <4.5) to their job included business writing skills (3.9 mean), understanding of economic concepts and day-to-day business practices (4.2 mean), quantitative analysis skills to make decisions (4.4 mean), awareness to cultural and gender differences (3.6 mean) and oral presentation skills (4.3 mean). The results of Miller et al. 2005 suggested that communication and interpersonal skills were 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) used the term "society-ready graduates" in his study of undergraduate learning experiences. He defined 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).

Survey participants also assessed (Likert scale) how their AFA involvement contributed to their development of seven workplace skill competencies identified by agribusiness employers. On average, individuals agreed (mean >3.4 and <4.5) 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 (3.7 mean), critical thinking skills (3.7 mean), interpersonal skills (4.1 mean), and quantitative analysis skills to make decisions (3.5 mean). Survey respondents did not agree or disagree (mean >2.4 and <3.5) that AFA helped contribute to their business writing skills (3.3 mean). The Oregon State University College of Agricultural Sciences 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).

By estimating simple ordinary least squares regressions (equation 3), the survey results were analyzed based on each skill competency as a function of the number of individuals' years of AFA involvement. In all, seven simple regressions were estimated, evaluating each skill competency. While the complete regression results are not reported here, results indicated that as years of AFA involvement increased, respondents attributed AFA as helping to develop their workplace skills in interpersonal communication 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. Wachenheim and Lesch (2004) 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).

Survey participants also completed a self-comparison (Likert scale) of their skill sets as a new hire in relationship with their peers who were not involved in AFA. Note that survey results here are for recent college graduates with AFA experience only; students who were not involved in AFA were not surveyed. Future research is needed to compare the self-assessment of AFA participants with former college student peers who did not participate in AFA.

Respondents agreed (mean >3.4 and <4.5) 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 (3.8 mean), awareness of cultural/gender differences (3.6 mean), understanding of economic concepts and day-to-day business practices (3.6 mean), critical thinking skills (3.6 mean), and interpersonal skills (4.1 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 (3.4 mean) and business writing skills (3.3 mean). It should be emphasized that these results report the beliefs of AFA participants only.

These results were also analyzed by estimating simple regressions based on each skill competency as a function of individuals' years of AFA involvement (equation 3). 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 communication skills, critical thinking skills, understanding of economic concepts and day-to-day business practices, and an awareness of cultural/gender differences. Regressions that examined business writing skills, oral presentation skills and quantitative analysis skills for decision making showed no statistically significant relationship. These regression 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.

Former AFA participants were also surveyed about their perceptions of AFA value, if there is an “AFA Advantage,” and the future direction of AFA. Respondents indicated they greatly value their AFA experience, with 50% rating it as “very high value” and 35% rating it as “somewhat high value.” In addition, when asked if they thought that there is an “AFA Advantage,” 84% said yes, while 16% said no. Note that these results are from AFA participants only, and there were no additional responses available to survey respondents for these questions.

As young professionals, the former AFA participants rated the workplace competencies that they feel AFA should focus on in the future. Overall, the mean score for each skill competency was categorized as “agree” or “strongly agree.” The respondents strongly agreed (mean >4.4) that AFA should focus on developing participants’ interpersonal skills (4.7 mean), oral presentation skills (4.6 mean) and critical thinking skills (4.5 mean). The other five workplace competencies were rated slightly lower, indicating they “agree” (mean <3.4 and <4.5) that the AFA should focus on helping develop business writing skills (3.9 mean), knowledge of general knowledge of economic concepts and day-to-day business practices (4.2 mean), quantitative analysis skills for decisions making (4.3 mean), and cultural and gender awareness (3.8 mean).

Former AFA participants also rated how AFA should focus in relationship to leadership and careers. Overall, the survey respondents strongly agreed (mean >4.4) that AFA should help its students provide networking opportunities (4.7 mean), access to internships (4.6 mean), access to career opportunities (4.5 mean), leadership development (4.6 mean) and career development (4.5 mean).

Summary

As Agriculture Future of America (AFA) has evolved since its inception in 1996, the organization has received positive feedback from both participating students and employers. The feedback has led the organization to believe that there may be an “AFA Advantage,” where AFA participants have an advantage over their peers when entering the workforce due to their AFA involvement. This research investigated the possibility of an “AFA

Advantage,” by measuring former participants’ workplace skill sets, as determined by agribusiness employers. 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.

The research findings provide some quantitative evidence to support the idea of 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 survey results also suggested that AFA participants believe that they possess stronger workplace skills than non-AFA participants, in their own self-assessment.

These skills included 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 may want to consider continuation of 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 show 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% of participants believe there is an “AFA Advantage.” Overall, a majority of participants rated their AFA experience as a high value (50%) and somewhat high value (35%).

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. 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.

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, this research demonstrates that AFA does provide an advantage to its college student participants. AFA is positively contributing to the development of students’ work-

The Impact

place 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.

Literature Cited

- Barcus, N., M. Bornhorst, and R. Weathers. 2007. AFA donor proposal. Agriculture Future of America. Kansas City, MO, May.
- Boland, M. and J. Akridge. (eds.). 2006. Agribusiness. Food and agribusiness management education: Future directions. USDA National Food and Agribusiness Management Education Commission, Kansas State University and Purdue University.
- Cole, L. and G. Thompson. 2002. Satisfaction of agribusiness employers with college graduates they have hired. NACTA Journal 46(1): 33-39.
- McKinley, B.G., R.J. Birkenholz, and B.R. Stewart. 1993. Characteristics and experiences related to the leadership skills of agriculture students in college. Journal of Agricultural Education 3: 76-83.
- Miller, S.E., T.D. Davis, W.N. Ferreira, L.D. Fredendall, and L.B. Nilson. 2005. Competencies of entry-level college graduate employees in agribusiness. In: Proc. of the Southern Agricultural Economics Association Annual Meeting, Little Rock, Arkansas, 5-9 February.
- Phillips, H. 2009. Agriculture future of America program specialist, interview by author, Kansas City, MO, 22 January.
- Svacina, L. 2009. M.A.B. Thesis, Dept. of Agricultural Economics, Kansas State Univ., Manhattan, KS 66506-4011.
- Wachenheim, C. J. and W.C. Lesch. 2004. U.S. 'executives' views on international agribusiness education in the United States: An IAMA membership survey. International Food and Agribusiness Management Review 7(1): 42-59.
- Weathers, R. 2008. Personal communication. Agriculture future of America. AFA Competencies. Kansas City, MO.
- Williams, J.E. 2002. Producing society-ready graduates by engaging alumni in the undergraduate learning experience. In: Proc. Of AAEA Annual Meetings, Long Beach, California, 28-31 July.



**Check out the new look to
NACTAteachers.org**