

## Impact of the College of Agriculture and Life Sciences State FFA Officer Support Program

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### Abstract

*The University of Arizona College of Agriculture and Life Sciences (CALs) implemented a support program in 1998 designed to recruit state FFA officers. Initial components of the program included: an office & related equipment, financial aid package, flexible course schedule, enrollment options for independent study and internship credit, and a faculty advisor assigned to coordinate the program and serve as a transition mentor. This study was conducted as a census to evaluate the impact of the program on the officers and CALs. Objectives were identified to determine the program's influence on participant enrollment decisions, determine its influence on persistence of enrollment, identify participant perceptions of their influence on CALs recruitment, describe their educational and career progression and determine the perceived value of the support program. Findings of the study indicate the program has met its objectives. Initial enrollment decisions and retention were influenced by the program. Participants felt they provided a positive influence to FFA members and offered extensive exposure to CALs. All participants had either completed a postsecondary degree (and obtained employment) or were still enrolled. Support was perceived as "strong" or better by 96.1% of participants and 90.6% believed it positively influenced their perception of CALs.*

### Introduction/Theoretical Framework

The 2000-2005 employment outlook for agriculture indicated nationally declining enrollments in colleges of agriculture for the first time in the past decade. The need for majors in agriculture was further recognized by data projecting around 58,000 annual job openings for U.S. food and agricultural science graduates and a mere 57,000 actual graduates expected for those jobs. This shortage does not serve well for the future of arguably the nation's most important industry (Goecker et al., 1999). Rocca and Washburn (2005) identified that a student's college choice strongly influences their professional career. That, coupled with the implications of the Goecker et al. (1999) study, encourages colleges of agriculture nationwide to consider strategies to effectively recruit students. Those strategies are critical to the educational development of professionals needed by the agricultural industry in the future.

The University of Arizona College of Agriculture and Life Sciences (CALs) serves a critical role in providing a quality education for current and future members of the agricultural industry. To serve that purpose, the 2005-2009 CALs Strategic Plan was created as a progressive plan of action for the future. Within the plan, CALs identifies five specific goals that are directly in-line with the University of Arizona's Strategic Plan for 2006-2010. Goals 1 and 2 are of particular importance as they focus on obtaining, engaging, retaining, and ultimately graduating a diverse population of high quality undergraduate students (U of A, 2005, pages 16-

17). Accomplishment of these goals will hinge primarily on their ability to recruit and retain their targeted population of undergraduate students.

In conjunction with efforts of the Office of Enrollment Management, the University of Arizona College of Agriculture and Life Sciences (CALs) makes continual efforts related to marketing, recruitment, and retention of their undergraduate students. In April, 2005, the Coordinator of Recruitment Services was created as a faculty position to specifically address those efforts. The CALs Coordinator of Recruitment Services budgets time to identify and support CALs specific and general university recruitment activities and tactics. These include sponsorships, hosting of secondary agriculture education events, public appearances by CALs staff throughout the industry, and making personal contacts (including phone calls, visits, and letters) with potential students. (Santiago, personal communication, July 25, 2006) Previously identified and research validated recruitment tactics align nicely with the current focus and summarized efforts of the CALs Coordinator of Recruitment Services. This includes Graham's (1990) validation of efforts to get students to visit the campus, talk with university students or graduates, talk with high school teachers, and participate in university activities. Similarly, Dyer, Breja, and Andreasen (1999) advocated the devotion of adequate resources to brochure development, campus visits, letters from staff, and personal contacts from faculty as the most helpful, useful, and effective sources of information. Finally, the 2002 study by Nafukho and Burnett recognized total number of mail pieces sent by the college and campus visitation programs as important recruitment factors that correlate with enrollment status.

Wildman and Torres (1999) identified principal factors that serve to influence a student's specific selection of major in agriculture. They concluded that to increase enrollment in agricultural majors, recruitment efforts need to focus on students who have been exposed to some type of agricultural experience such as living on a farm or ranch, being involved with FFA and 4-H, hunting, and working with animals. Russell (1993) and Tarpley and Miller (2004) noted participation in community organizations such as FFA and 4-H as an influence in a student's college choice decision. Fanno and Cole (1999) also encouraged colleges of agriculture to recruit a higher percentage of students with FFA and/or 4-H backgrounds.

The 1999 Dyer, Breja, and Andreasen study found high school agriculture programs to be good investments by those interested in promoting agriculture. Specifically students who have enrolled in high school agriculture, and those who were involved in FFA and/or 4-H, were found to be more likely to complete a four-year degree in the college of Agriculture and choose agriculture as a career than were students who had not had those experiences. An earlier Dyer, Lacey, and Osborne (1996) study concluded that the likelihood of a University of Illinois freshman, in the College of Agriculture, completing their degree and actually graduating with a major from the college was nearly double if the student had been an FFA member or had completed some high school agriculture. Ball, A. L., Garton, B. L., and Dyer, J. E. (2001) found that prior involvement in agricultural youth organizations had a significant association with students' academic performance as well as retention. These studies produce important implications for the recruitment of individuals with prior experience in agricultural youth organizations. Altogether, these studies imply to colleges of agriculture that a safer investment in faculty time and scholarship monies may be made to students with high school agriculture education and FFA experience.

Many postsecondary educational institutions make considerable efforts and expenditures to effectively recruit high quality students. Unfortunately, the difficulty often lies in retention of these students upon matriculation into a college. Nationally, nearly a third of all college students (23% of four year college students; 42% of two-year college students) transfer to a different institution before earning their degrees (Research Strategies International, 2003). Second year average persistence rates for first-time, full-time entering freshmen (cohorts 1985-2004) at the University of Arizona ranged from 74% to 80%, for an average retention rate of 77%. A relative comparison yields a national average of 77.6% (Retention Coordinating Group, 2005). Collectively, these transfers represent both a significant cost and opportunity to universities and colleges alike. These data suggest that colleges consider specific plans of action to address retention concerns. Despite this reality, research completed for the recent University of Arizona Strategic Retention Master Plan uncovered that less than 52 percent of responding institutions had identified a person on campus responsible for coordinating retention efforts, less than 48 percent had established a goal to improve first-to-second year persistence, and only about one third had established a goal for improved degree completion (Wilkes, et al., 2005).

A closer look at retention itself reveals its complexities and broad range of factors involved. Student retention is partially about numbers that enable administrators to evaluate their effectiveness in serving students and assisting them in reaching their goal of graduation. The University of Arizona also recognizes that students' futures are impacted by what happens to them as they matriculate through the university. Retention of students and success in graduating them are both influenced by a multitude of research based factors. Isolation of these factors varies from study to study. As noted by the Retention Coordinating Group (2005), 25 years of work with college enrollment programs identified factors that were found to be essential to success in college. Specifically, effective retention must address students' academic, social and cultural experiences during their time spent at the university. This demands a commitment to the whole student and the entire environment of the complete college experience.

Given the aforementioned research, one targeted group of particular interest to CALS is the population of Arizona students in secondary agricultural education programs. Through their involvement in secondary agricultural education programs, these potential CALS students experience a dynamic learning environment within an agricultural setting. This environment includes classroom/ laboratory instruction, supervised agricultural experience projects, and participation in FFA student organization activities/ opportunities. The FFA, founded in 1928, is an agricultural youth leadership organization whose mission is to make a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education. (National FFA Organization, 2000, pg 6) Balschweid and Talbert (2000) through the Purdue University/ Horatio Alger study of FFA members, compared agricultural education students (FFA and Non-FFA members) to the typical high school student. Key findings indicated that students who were both enrolled in agricultural education and also members of the FFA benefit more from their personal, academic and career experiences in school than the general student population. Balschweid and Talbert's (2000) conclusion was supported by three key observations which are of significance to the University of Arizona CALS recruitment efforts. Specifically, FFA members are more enthusiastic about and attach greater value to their school studies than the average student, they are more likely than

the average student to relate personal effort to success and believe it is important to do their best, and they are preparing for postsecondary studies in slightly higher numbers and have more sharply defined career objectives than the average student.

These findings can be considered with cautionary generalization to student members of the Arizona Association FFA. Established in 1929, the Arizona Association FFA serves to implement the mission and objectives of the National FFA Organization, with a specific focus on agriculture education students in the state of Arizona. For the 2004-2005 school year, the Arizona Association FFA recorded a student membership of 4,309 students. This membership emerges from the 7,334 students enrolled in the 65 secondary agriculture education programs in Arizona (M. Lewis, personal communication, July 27, 2006). To accomplish goals 1 and 2 of the 2005-2009 CALS Strategic Plan, as noted earlier, recruitment efforts have targeted this population as a source for high quality undergraduate and graduate students.

Members of the Arizona Association FFA annually elect an executive committee to carry out the organization's mission and objectives. Eleven student members elected to this committee serve for one year as state officers of the Arizona Association FFA. These student leaders spend one year of service, typically during their freshman year in college, making public appearances as ambassadors for youth in agriculture. According to Malorie Lewis, 2006 Arizona FFA Consultant who coordinates state FFA officer scheduling, 45 Arizona agriculture education programs/ FFA chapters received classroom visits by members of the state FFA officer team during the 2005-2006 school year. Those visits are in addition to the 31 chapter FFA banquets attended by one or more state FFA officers. Even further, each member of the eleven person state officer team conducted approximately 5 workshops each (M. Lewis, personal communication, July 27, 2006). Altogether, this exposure to secondary students in agriculture develops members of the state FFA officer team into highly influential students in the FFA organization, in the college and in the agricultural industry. The potential influence and exposure that state FFA officers have with youth in agriculture, coupled with research on the value of secondary agriculture students, suggests that state officers be given significant and particular consideration through CALS recruitment efforts.

The need for a program to recruit state FFA officers to the college was highlighted in a 1998 proposal submitted to CALS by Dr. Billye Foster and Dr. Jack Elliot of the Department of Agricultural Education (1998). From that effort, the University of Arizona College of Agriculture and Life Sciences implemented a support program (effective Fall 1998) to recruit state FFA officers to attend the university and enroll in the college. The program was designed to give the officers three valid reasons for attending the University of Arizona and enrolling in CALS including; reduced expenses, a flexible course load, and a quality education. To serve that cause, the program was designed to include office space and equipment, a financial aid package, flexible course schedule, enrollment options for independent study and internship credit, and a faculty advisor assigned to coordinate the program and serve as a transition mentor. The office was eventually referenced as the "Forbes Office for State FFA Officers". The financial aid package was made available and disbursed to program participants through a scholarship and an internship. This measure is consistent with research based suggestions by Nafukho and Burnett (2002) and Fanno and Cole (1999). The latter concluded that indicators of career goals in agriculture, a desire to make a contribution to agriculture, evidence of past work experience, and

youth activities in agriculture should be used to direct scholarship support to students most likely to stay in agricultural programs and enter agricultural careers.

Dyer, Breja, and Andreasen (1999) encouraged colleges of agriculture to explore the use of alternative retention activities, such as learning communities/ teams, for incoming freshmen to create a “family” away from home. One of the founding purposes of the University of Arizona CALS state FFA officer support program was to create such an atmosphere for state FFA officers. Since the initial program was launched, some modifications were made to adjust for any perceived design or operating flaws. The structure of the financial package was modified in the summer of 2001 to spread the monies over a two year period. From that point forward, an officer was also given the ability to choose to defer their monies for one year. Other changes include new program coordinators in 2000 and 2005, along with routine office equipment and facility updates to keep the room and necessary tools operational. Currently, the CALS Coordinator of Recruitment Services serves as the faculty coordinator of the program. (Foster and Elliot, 1998 and Jack Elliot, personal communication, July 20, 2006)

Since its inception, 32 state FFA officers have fully participated in the program and enrolled in the college. As with any ongoing coordinated recruitment effort, the general design and structure should eventually be reconsidered and suggested changes should be addressed. Most importantly, given the substantial direct and indirect costs associated with sponsoring this program, it may prove valuable for the college to determine if the program is meeting its goals. To date, there have been no significant efforts made to evaluate the CALS state FFA officer support program. Even more, a national search for similar programs yielded no comparable efforts to develop a comprehensive system to recruit, retain, and support state FFA officers. Altogether, these points highlight the need for a study to evaluate the efficacy of the program and provide data for future program related decision making.

#### Purpose/Objectives

The purpose of this effort was to study the impact of the College of Agriculture and Life Sciences state FFA officer support program on the officers and the college. To meet the overall purpose of the study, the following objectives were identified:

1. To determine the program’s influence on state FFA officers’ decisions to enroll in the College of Agriculture and Life Sciences.
2. To describe the program’s influence on state FFA officers’ persistence of enrollment.
3. To identify the perceptions of program participants, as to their influence on recruitment for the College of Agriculture and Life Sciences.
4. To describe the educational and career progression of the program participants.
5. To determine the overall value of the support program as perceived by the officers themselves.

#### Methods/Procedures

The study utilized a descriptive survey research design in cooperation with the Dillman Total Design Method (Dillman, 1978). A census was conducted of all program participants from

the University of Arizona College of Agriculture and Life Sciences state FFA officer support program, from conception to 2004 (N=32). Contact information was obtained from the Arizona FFA Foundation directory. The instrument was developed following a review of related literature, and the creation of the conceptual and operational frameworks. A panel of experts from the University of Arizona College of Agriculture and Life Sciences determined the face, content and construct validity of the instrument (McCracken, 2003). A field test was administered to selected experts in the subject area to further establish content and construct validity (McCracken, 2003). After minor revisions, the pilot test was administered to a similar population through telephone interview. Specifically, the pilot test population included three past state FFA officers who attended a university during their state FFA officer year, other than the University of Arizona. Data were collected and further adjustments made to the instrument. A letter and return postcard were mailed to the target population to provide written disclaimer information as well as optional interview time requests. The instrument was then administered to the target population through a telephone interview spanning approximately 20 minutes. Multiple attempts to contact each participant yielded a 100% response rate of the accessible target population, eliminating the need to evaluate non-responders.

The population consisted of past participants of the state FFA officer support program. Participants were identified using the Arizona FFA Foundation Directory and CALS faculty verification of participation. Contact information, including telephone number and mailing address were obtained for all past participants of the program from the Arizona FFA Foundation directory, Arizona Association FFA staff suggestions, and personal contacts of the instrument administrator.

The survey instrument was developed according to the research objectives created after the review of literature and with consideration of Dillman's (1978) recommendations on creating telephone questionnaires. The study utilized a mixed method approach including both quantitative and qualitative data to fully enrich the value and accuracy of the findings. Likert type scales and open-ended questions assessed the questions for each of the five objectives and demographics. Participants were asked to answer a series of statements based on the study's objectives. The purpose of this study was to determine the impact of the state FFA officer support program on the officers and the college. In order to fully assess the participants' perceptions related to the objectives, demographic questions were asked within the instrument. Therefore, the instrument had questions to determine the demographics of the population including; high school graduated from, economic status, ethnicity, and birth date. Even further, the year the state officer participated in the program was recorded and used to describe the population.

After the instrument was finalized, the approval from the Institutional Review Board for the Protection of Human Subjects was sought and obtained. An initial population of 41 potential program participants was recognized. With reference to Dillman's methods (1978), each was sent an introductory letter by mail, outlining and explaining the project. A disclaimer form was included, as was a return postcard with optional interview times pre-determined and available for participant convenience. After three weeks, an initial postcard response rate of 36% was realized. The inclusion of this option did not warrant further investigation as it was meant as a polite gesture to enable participants to request a preferred interview time and therefore not

critical to the data collection process. As suggested by Campbell and Stanley (1963), specific measures were taken to maintain a consistent process for implementing the instrument and recording the data in order to minimize instrumentation and measurement related threats to internal validity.

Upon completion of preliminary data collection efforts, it was concluded that a number of potential participants were not acceptable members of the target population. This conclusion stems from the findings that one was deceased, two had no current telephone contact information available (despite exhaustive efforts by the investigator), and six being identified as incomplete participants. These incomplete participants were eliminated as they had participated in the program for only one semester, enrolled at Arizona Western College and only experienced the programs' feature of enrollment in the nine independent study and internship credit hours, or they had never enrolled in the program to begin with. This resulted in an accessible target population of 32 program participants. Continual efforts to complete a census and contact each of these participants yielded a 100% response rate of 32 responders. The results are therefore a complete census generalized to the population according to Lindner, Murphy, and Briers (2001) and Miller and Smith (1983). The findings of the study are only applicable to the population being studied and should not be generalized to a differing group.

The backgrounds and prior experiences of the respondents may have influenced their responses. However, since the population was only state FFA officers who have attended the University of Arizona and participated in the program, determination of the population and census design controlled this threat to internal validity. Variability in the participants' secondary education and prior experiences were not controlled. The author acknowledges past experience as a participant in the program and utilized external review to help control this threat to validity.

### Results/Findings

#### *Objective One- Program Influence on Recruitment of State FFA Officers*

Evaluation of student intentions prior to election to a state FFA office revealed that 78% of the participants had intended to enroll at the University of Arizona while 12.5% were undecided. Sixty five percent had already decided to enroll in an agriculture major, while 21.9% were undecided. The highest frequency of intended majors, prior to election to state office was seven through the Department of Agriculture and Resource Economics. Five intended to major in Agricultural Education while another seven were undecided and considering majors unrelated to agriculture. Upon election to state office, 65% of the participants indicated that the program had at least some influence on their decision to attend the University of Arizona, while 56.2% indicated an influence on their decision to enroll in CALS. Six students identified the support system as the main reason why they had enrolled in a CALS major. Specific influences noted included: students and faculty within the college, financial support, and general support system. Roughly half, 56.2%, of participants (n=18) noted at least some influence of past state FFA officers already enrolled in CALS on their decision to originally enroll. Two participants noted this influence as the main reason for their enrollment, while 43.8% indicated "no influence" on their decision to enroll. 100% of program participants indicated that they originally enrolled in a

CALS major. A requirement of the program is enrollment in CALS, and this statistic verifies implementation of that requirement.

### *Objective Two- Program Influence on State Officer Retention*

At the start of the semester immediately following their state officer year, 81.3% of the population had enrolled in a CALS major. Of those who remained enrolled, 38.5% noted no influence from the program on their decision, while 61.5% noted at least some influence. Students who did not remain enrolled in CALS after their state officer year noted a variety of reasons including: personal, geographic proximity to home, change in schools, change of major outside of CALS, move closer to state FFA office, and financial. The most frequent was to change schools (n=7). The presence of past or current state FFA officers enrolled in CALS influenced 46.8% of participants' decisions to remain enrolled in CALS. Yet, 50% noted no influence from these CALS students who were current or former state FFA officers. The three participants who remained enrolled at the university but transferred to a non-CALS major cited other interests, poor grades, and a poor experience as their only reasons for transferring. One of those participants noted their intention to eventually return to a CALS major. Primary reasons noted by students who had left the university prior to graduation included: grades, degree offering, personal, financial, move closer to state office, employment opportunities and one respondent indicated being almost done before they relocated. There were no major differences in frequency of these reasons. Of the 11 students who did leave the university prior to graduation, three indicated that they planned to return.

The change in program structure to spread out the financial aid package was also considered and evaluated. These responses were categorized as either participants of the first or second phase. The majority of the officers who experienced the first phase expressed displeasure in the concept behind the second phase. In regards to this, 66.7% indicated that they either "did not like it," or needed all of the financial support upfront. Similarly, 67% indicated the changes would NOT have better suited their needs. Still, 77.8% indicated that the changes would not have effected their enrollment decisions either during or after their state officer year. Finally, 66.7% indicated that they would have preferred the original structure. Participants of the second phase responded noticeably different. Of that group, 85.7% indicated that the original program would not have suited their needs. Similarly, 85.7% also noted that the new structure had at least some influence on their re-enrollment decisions at the completion of their state officer year. Overall, 57.1% preferred the modified structure and 42.9% preferred the concept of the original structure.

### *Objective Three- Participant Influence on CALS Recruitment*

Participants varied in their responses as to the percentage of their FFA related engagements that revealed their enrollment in CALS. The majority, 71.8%, of participants believed they had revealed their enrollment at the University of Arizona at a minimum of 75% of their engagements (Table 1). Fewer, 65%, of participants believed they had revealed their enrollment in a CALS major at a minimum of 75% of their engagements (Table 15). One participant believed that none of their engagements revealed enrollment in CALS. Most, 71.8%, respondents believed that they had a "strong" to "very strong" influence on CALS enrollment

decisions for the population of Arizona FFA members they served. Three respondents indicated “no influence,” with the remainder indicating at least some influence.

#### *Objective Four- Participant Education and Career Progression*

The educational and career progression of the program participants was evaluated. Degrees had been completed by 53.1% of participants, while 46.9% had not yet completed a degree. Of these, two completed their degrees at institutions other than the University of Arizona and two completed degrees at the university but outside of CALS. The most frequent majors completed were Agricultural Education and Agriculture and Resource Economics, with four students reporting each. Twenty students were still enrolled in postsecondary educational programs. Of the 15 students who had not completed their degrees, all indicated that they were still enrolled somewhere. Twelve reported enrollment in CALS, one at the University of Arizona but outside of CALS, one reported out of state enrollment, and one reported community college enrollment. Four students are enrolled in graduate degree programs or higher. A large majority, 87.5%, of participants were employed. The remaining 12.5%, who were not employed, did indicate current enrollment as fulltime students. At the time of the study, 46.9% of the respondents were current students with part time or fulltime employment. Essentially, the only program participant who was not currently employed or attending school fulltime was a volunteer serving as a National FFA Officer. Employment varied as 9.4% were fulltime students with no employment, 62.5% were employed in agriculturally related industries, and the remaining 28.1% were employed in an unrelated industry.

#### *Objective Five- Value of Support Program*

The overall value of the support program was determined through perceptions of the officers themselves. The support program positively influenced the perception of CALS for 90.6% of participants, leaving three participants who indicated a negative influence on their perception of CALS. Fewer, 56.3%, indicated a positive influence on their overall perception to the University of Arizona while 40.6% indicated “no influence”. Overall, 96.1% of participants felt the support program offered “strong” to “very strong” support to state FFA officers. The remaining participant indicated “moderate” support. The Forbes Office accommodated the state officer related needs of 93.8% of the participants, yet less (84.4%) were satisfied with its accommodations of their needs as students. Financial support was considered “very strong” by 18 participants, “strong” by one participant, and “moderate” by 13 participants. Responses were largely found to be either moderate or very strong, with little variability. Suggestions for program improvement were offered by 75% of the respondents.

#### *Demographics*

Fifteen FFA chapters were represented by the population of 32 participants. The most frequent were Buckeye (n=6) and Mingus Union (n=4). Economic status varied greatly and should be considered with caution given the design and methods of data collection. Middle and middle upper economic class was claimed by 96.9% of respondents. Two ethnic groups were represented with 90.6% of respondents indicating “Caucasian” and 9.4% indicating “Hispanic”. Gender was evenly represented with 56.3% being female and 43.8% male. Demographics of all

past state FFA officers were unavailable for further comparison. Number of participants per year and age of each participant were evenly distributed. The minimum number of participants reported per year was four, and the maximum reported was six.

## Conclusions

### *Objective One- Program Influence on Recruitment of State FFA Officers*

The study indicates that a large percentage of participants already intended to attend the University of Arizona and major in CALS before their election to state office. Still, it is important to recognize the remaining participants whose enrollment decisions were made after their election. Intended majors seemed to be well represented by the traditional agriculture majors, and not nearly as well represented by majors in the life sciences. Within traditional agriculture majors, the Departments of Agriculture and Resource Economics and Agricultural Education enrolled the most participants, suggesting these departments benefit more from the program. A number of students identified the support system as their main reason for enrollment. Absence of the program may likely have resulted in a percentage of them never enrolling in CALS. Requiring participants to enroll in CALS is an effective and appropriate way to encourage their exploration of CALS opportunities, potentially influencing “undecided” students.

### *Objective Two- Program Influence on State Officer Retention*

The majority of students did not exit CALS after benefiting from their participation in the program during their first year. Some of that retention was influenced by the program specifically, and some of it can be attributed to other influences entirely. Of those who left CALS, three remained enrolled at the university and three left entirely. Evaluation of students who discontinued enrollment in CALS warrants consideration of those reasons noted for their exit. Specifically, noted reasons of moving closer to the state FFA office, financial need, poor grades, and a poor experience are already targeted by the support program. Additionally, past or current state FFA officers enrolled in CALS do influence enrollment decisions of state officers.

The programs’ structure appears to be serving its purpose by influencing re-enrollment decisions. These findings were of special interest, as it appears state officers were generally accepting of the program, regardless of its structure. Participants during the first phase mostly preferred the original structure, and participants of the second phase mostly preferred the new structure. A majority of first phase participants indicated displeasure in the concept behind the new design and the majority indicated that the new design would not have served their needs. Still, the majority concluded that the change in program structure would not have impacted their enrollment decisions. Multiple participants expressed significant concern with the new design, pledging their need for all of the financial support during their first year of enrollment and especially during their state officer year. Participants of the second phase responded noticeably different. The majority did not like the old design and indicated that it would not have met their needs. The majority also indicated the new design had at least some influence on their re-enrollment decisions.

### *Objective Three- Participant Influence on CALS Recruitment*

The majority of state officers feel they commonly informed their audiences of their enrollment in CALS. The frequency of this exposure is valuable to CALS recruitment efforts. Even further, a strong influence was perceived to be had by state FFA officers on other FFA members' enrollment decisions. This is of particular interest given previous research that consistently recommends for recruitment efforts to target students enrolled in high school agriculture and members of the FFA.

### *Objective Four- Participant Education and Career Progression*

Participants of the program have progressed well toward their educational and career goals. They all appear to be contributing to society and improving their education. The majority of graduates had graduated with a degree from CALS, and most of those who were still in post secondary educational programs were enrolled in CALS.

### *Objective Five- Value of Support Program*

Most participants noted positive perceptions of the program and many considered the program to have a positive influence on their perception of CALS and the entire University of Arizona. The few who did not report such findings are of concern and their qualitative responses highlight a breakdown in implementation of the program. Specific cases cited warrant careful attention to improving communication efforts between officers and program advisors. Even more, appropriate use of a state officers' time is needed given their hectic schedule and vast responsibilities during an already stressful first year in college. The Forbes Office is clearly serving its purpose and continual attention to equipment updates should be expected. Financial support was appreciated by participants yet, as expected, many requested additional funds. Efforts to maintain the relative value of this support compared to general university tuition increases should be considered as this was noted by many of the participants. Philosophically, this investigator believes that financial limitations should not prevent students from obtaining a higher education. Research validates that special consideration of particular state officers may warrant the granting of additional financial aid.

### *Demographics*

The alarming representation of Caucasians is likely to not be representative of the college. Still, it remains representative of this population as the study was a census. The Arizona Association FFA may consider evaluating the demographics of their state officers relative to their membership. Diversity issues are raised and should be addressed.

### **Recommendations**

It is recommended that support of the program be continued and evaluated on a more consistent basis. Continual support of this program serves the mission of the university and CALS alike, while providing positive exposure throughout the agricultural industry and population they serve. The University of Arizona College of Agriculture and Life Sciences

holds a fortunate advantage in recruitment purposes over rival institutions in the state. CALS is the historical agricultural college within Arizona and has established credibility. Similarly, CALS has developed into the historical home for state officers. Danger lies in enabling that label to be claimed elsewhere.

The role of the program advisor is particularly important, and was largely responsible for experiences of participants. Appointing the Coordinator of Recruitment Services to this position was a wise move and should be continued. Communication and effective use of a state officer's time is critical to their experience. Office hours should not be standardized and required. State officers experience potentially more hectic and stressful schedules than do other college freshmen. Mandatory office hours are an ineffective use of a state officer's time as little value lies in occupying an office for no intended purpose. Additional tasks or duties assigned by the coordinator should be used with caution. Special efforts should be made to clarify expectations and make such tasks meaningful. Follow-up has apparently been lacking at times as some officers noted feelings of abandonment and uncertainty. Clear expectations and expression of their role as a representative of the college should be established at the onset and emphasized throughout the program. Grades and class attendance in particular should be addressed as these students are in the spotlight with faculty and peers.

The program's structure of financial aid in 2001 appears to be accomplishing its objective of improving student retention. It is clear that spreading these monies over a two year period is preferred by some and feared by others. Potential exclusion of state officers due to limited financial aid during their first year (a time when they are also not encouraged to be employed due to duties as a state officer) is a reality and should be addressed. It would better serve the needs of the state officers to make the financial aid structural changes optional. Administrative fears of worsened retention rates are recognized, and should be evaluated against the potential for increased recruitment.

Consistent efforts to access the population of Arizona students in agricultural education and members of the FFA is research based and warranted by this study. The percentage of these students enrolled in CALS is not similar to comparable institutions nationwide. CALS may be fortunate in having a high percentage of enrollments from other sources and it may bode well for them to further enhance their accessibility to secondary agricultural education students and FFA members. Significant gains in enrollment may be possible. Specifically, the use of state FFA officers in recruitment is a potentially valuable tool. Their influence and exposure to industry and youth in agriculture hinges entirely on their experience at the university. Efforts must be made by the program coordinator to make this experience positive. As recognized leaders, state officers are likely to obtain influential positions and future status within the agricultural industry. A poor experience for one officer will result in a lifetime of negative perceptions which have the potential to influence many. Communication between the coordinator, faculty, and state officers is the key to this experience.

A transitional program may be explored for implementation during the second semester of enrollment. Some responses indicated that their first year was enriched with support, yet they felt abandoned from there forward. Consideration of structured involvement, participation, or coordinated activities designed to interact state FFA officers with student clubs, activities, or

ambassadors may prove beneficial to continuing their mode of leadership and excellence. Follow-up work to Kohn's 2000 CALS specific study would improve accuracy to the perceived demographic make-up of CALS. Recruitment efforts should continue to recognize results of similar studies. Further research to evaluate enrollment influences, particularly for former secondary agriculture education students/ FFA members, would more accurately reflect the actual influence of state FFA officers as opposed to their self-perceived influence. Ultimate determination of financial value to the program is only warranted through further economics based research. The vast indirect costs and benefits make determination of exact financial value beyond the scope of this study.

### Implications

The Goecker et al. (1999) study highlights declining enrollments in colleges of agriculture nationwide along with a corresponding shortage of U.S. food and agricultural science graduates. This alone should be alarming to the agricultural industry. It should serve as further motivation for colleges of agriculture nationwide to hone existing strategies and develop new ones in effectively recruiting and retaining students. These strategies are critical to the educational development of professionals needed by the agricultural industry in the future. Overall recruitment efforts by colleges of agriculture nationwide may be indirectly supplemented by focusing recruitment and retention efforts to state FFA officers. The University of Arizona College of Agriculture and Life Sciences State FFA Officer Support Program is accomplishing its objectives. Evaluation tools, such as this study, serve well in accomplishing the continual effort to increase the recruitment and retention of quality students who progress into contributing members of the agricultural industry.

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