

ENGAGING STUDENTS IN THE AGRICULTURAL EDUCATION MODEL: FACTORS AFFECTING STUDENT PARTICIPATION IN THE NATIONAL FFA ORGANIZATION

B. Allen Talbert, Associate Professor
Mark A. Balschweid, Assistant Professor
Purdue University

Abstract

The purpose of this study was to determine the degree of engagement of agricultural education students in the FFA, their agricultural education courses, their high school courses, and agriculture. This descriptive study using self-administered mailed questionnaires had a 52% useable response rate from FFA members and a 63% useable response rate from non-members. Members of the National FFA Organization more than non-members had a higher percentage that were current or former 4-H members, a higher percentage that had parents or siblings who were in agricultural education or 4-H, and a higher percentage self-reported that they lived on a farm. A higher percentage of FFA members than non-members reported that they had an SAE (Supervised Agricultural Experience). Members of the National FFA Organization more than non-members believed that their agriculture classes were preparing them for the future, were challenging, interesting, exciting, and allowed for open discussion. Almost one-third of the FFA members reported that they had not received any award in FFA. Two-fifths had never participated in a CDE (Career Development Event), one-half had never participated in a leadership event, and two-thirds had never completed a proficiency award application. One-third did not have an SAE at the time of the survey.

Introduction and Theoretical Framework

The agricultural education program has three integral, intra-curricular components: classroom/laboratory instruction, experiential learning through supervised experiences, and FFA (Dailey, Conroy, & Shelley-Tolbert, 2001). The FFA is the youth organization component for students studying agriculture in public secondary schools. The main tenets of the FFA are found in the organization's mission: "FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education" (National FFA Organization, 2000, p. 6). Staller (2001) postulated that, of the three components of the agricultural education program, the FFA is the more intense for strength of learning on life skills.

Active membership in FFA is open to all

students enrolled in a secondary agricultural education program (National FFA Organization, 2000). However, total membership inconsistent with total students enrolled in agricultural education has confounded those closely associated with the National FFA Organization. Of an estimated 800,000 agricultural education students, only about 450,000 receive educational benefits as members of the FFA (Stagg & Staller, 1999). Secondary agricultural education teachers have long perceived the benefits of membership in the National FFA Organization for their students. However, concern exists for the lack of perceived benefits of FFA membership for many of the students enrolled in agricultural education. Renewed discussions concerning the need for FFA and agricultural education have taken center stage in Volumes 71 and 72 of *The Agricultural Education Magazine* where

questions were posed to clarify the need for public school agricultural education and the FFA in the 21st century.

Because of the perceived benefits of FFA membership, involvement theory is the theoretical framework for this study. Astin (1984) theorized that involvement in activities, especially those closely associated with academic outcomes, enhances achievement. In a later study, Astin (1993) looked at college undergraduates and found that involvement enhanced both academic and personal development. Although conducted on the collegiate level, the involvement theory translates to the secondary education level as well.

Brown and Theobald (1998) stated that involvement in extracurricular or co-curricular activities can strengthen connections across learning environments. They cited literature throughout the 20th century praising the benefits of extracurricular activities especially in fostering citizenship, moral development, academic development, and community involvement. Brown and Theobald emphasized that these activities may have the most benefit for students who are disengaged from regular classroom instruction. In fact, they implored that extracurricular activities involve all students in order to break down barriers among adolescents.

Conceptual Framework

Studies published in the 1990s identified factors influencing students to enroll in agricultural education courses. Marshall, Herring, and Briers (1992) found that students enrolled in agricultural education because of characteristics of the class. Reis and Kahler (1997) found that parents, the agriculture teacher, friends, and former agricultural education students were the most influential people for enrollment decisions. Hoover and Scanlon (1991) determined that the image of agricultural education, the FFA, and the agriculture profession in general were the greatest barriers for students not enrolling in agricultural education.

Research findings also lead to conclusions explaining why some

agricultural education students join the National FFA Organization and others do not. Connors, Moore, and Elliot (1990) found that the most important factor influencing non-members to join the organization was their interest in agriculture, while the barriers for agricultural education students not joining FFA included their level of interest in agriculture and the future value of the FFA to their career. Gliem and Gliem (1999) reported that class rank, year first enrolled in FFA, interest in agriculture, former family membership in FFA, teacher enthusiasm for FFA, and including FFA activities as part of the classroom instruction were significant predictors for whether a student would be an FFA member or non-member. Croom and Flowers (2000) found that for first-year North Carolina agricultural education students the perceived image of the FFA in their school, whether positive or negative, influenced the student's decision to join the FFA.

Gliem and Gliem (2000) using exploratory factor analysis and a national purposive sample developed models for factors that encouraged, discouraged, or would encourage students to join the FFA. For students who joined the FFA a three-factor model of perceived personal development opportunities, positive image of the FFA, and family members who were former FFA members explained the motivating factors for joining. A four-factor model of negative image of the FFA, perceived lack of value of the FFA, time commitment of the FFA, and knowledge of the FFA explained the motivating factors for not joining. A five-factor model including providing knowledge about the FFA, placing less emphasis on farming, and relating FFA experiences with getting a good job explained the motivating factors for students who would consider joining the FFA.

As a means of promoting the FFA mission, the National FFA Organization encourages cooperation and cooperative attitudes among all people, and seeks to encourage its members to excel in the classroom through encouraging excellence in scholarship (National FFA Organization, 2000). Lockaby (1998) concluded that within the agricultural education model, the FFA is the most appropriate tool for

teaching values and attitudes to agricultural education students.

The National FFA Organization has an extensive awards program designed to encourage member growth in leadership, skill development, and responsibility. The FFA provides young people the opportunity to do something worthwhile, to excel in what they do, to receive appreciation for what they do, to be given responsibility, and to learn to be self-sufficient (Phipps & Osborne, 1988). Keith (1998) revealed that the type of competition youth organizations offer is beneficial to students as well as their families. Furthermore, agricultural educators are encouraged to link FFA leadership activities, award programs, and competitive events to high quality agricultural education curriculum (A Guide to Local Program Success, 1998).

Purpose/Objectives

Although previous studies have explored why students enroll in agricultural education classes and why they join the FFA, little has been published in the literature about how involved students are once they join the FFA. The purpose of this study was to determine the degree of engagement of agricultural education students in the FFA, their agricultural education courses, their high school courses, and agriculture. A secondary purpose was to further explore why students enroll in agricultural education and why they join the FFA. Specific objectives were:

1. Compare FFA members and non-members on demographic characteristics, ratings of importance of high school courses, and attitudes toward agriculture classes.
2. Describe involvement by FFA members in Award received, Office held, Degree obtained, Career Development Events, Leadership activities, and Proficiency awards.
3. Determine influencers for students to enroll in agricultural education classes and to join or not join the FFA.

Methodology

This was a descriptive, comparative study; therefore, self-administered mailed questionnaires were utilized to obtain data for analysis. Two similar questionnaires, developed by the researchers, were used for the samples of FFA members and non-members. Procedures as specified by the University Human Subjects Office for anonymity and confidentiality of research subjects were followed. The Dillman method (Dillman, 1978; Salant & Dillman, 1994) for enhancing mailed questionnaire response rate was followed. Face and content validity were established using input from agricultural education professionals at Purdue University and the National FFA Center in Indianapolis, Indiana. Both questionnaires were pilot tested in an agricultural education class that was not a part of the study. The researchers made modifications to wording for clarity and understanding based on feedback from the pilot test.

The data were analyzed using SPSS for Windows. Descriptive statistics used included mean, standard deviation, frequency, range, and percentage. Crosstabs analysis using Chi-Square was used to determine statistically significant differences for FFA members and non-members on all nominal variables. Multivariate ANOVA was used to determine statistically significant differences for FFA members and non-members on all interval variables. A significance level of .05 was set a priori.

The FFA member questionnaire mailing consisted of an eight-page letter-sized booklet, a cover letter signed by 1998-99 National FFA President Lisa Ahrens and the two researchers, and a self-addressed postage-paid return envelope. The mailing to FFA members began in November of 1999. A stratified random sample of 125 FFA members from each of the four regions of the National FFA Organization to include members in rural, suburban and urban FFA chapters was identified to ensure proportional representation. The population was the 451,997 FFA members in the National FFA Organization in 1999. The

sampling frame was the mailing list for the *FFA New Horizons Magazine*. The sample size of 500 was chosen to allow for an appropriate useable return rate after accounting for non-deliverable mailings and non-FFA recipients of the magazine who were a part of the database.

Follow-up reminders and additional questionnaires were mailed at two-week intervals. In January 2000 data collection was to have stopped according to the Dillman method; however, the response rate was less than 50%. Therefore, an additional packet containing a cover letter, another questionnaire, a postage-paid return envelope, and a small gift was mailed to all non-respondents. Two weeks later a final response request was mailed out to all remaining non-respondents. The FFA member portion of the study had a useable response rate of 52%. Of the 500 questionnaires mailed out 221 useable responses were received, 71 were classified as unusable responses, and 208 as non-respondents. Because of the low response rate after three mailings (39%), the responses were divided into early (those who responded to the initial data collection mailings, $n=119$) and late (those who responded to the additional data collection mailing, $n=56$) (Miller & Smith, 1983). ANOVA or Chi-Square was conducted on key questions to determine if any statistical differences existed between early and late respondents. Of the 13 selected variables for comparison, only two were statistically significant at the .05 level.

The non-member questionnaire also consisted of an eight-page letter-sized booklet. Because no sampling frame existed for agricultural education students nationwide, cluster sampling using the secondary agricultural education program as the unit was used. A cluster sample of 40 secondary agricultural education programs, stratified by region, was randomly selected to receive 12 or 13 questionnaires each to be administered to agricultural education students in their classes who were not FFA members. There is a potential for selection bias using this method as the researchers cannot be certain that teachers randomly selected participants. The sampling frame

of the Agricultural Education programs was obtained from the National FFA Organization's database of FFA advisors/agricultural educators. This resulted in a sample size of 500 non-members to match the sample size of FFA members.

The return label on the reply envelope was coded to facilitate follow-up mailings. On October 29, 1999 a packet containing a cover letter signed by 1998-99 National FFA President Lisa Ahrens and the two researchers; 12 or 13 questionnaires, and a self-addressed, postage-paid return envelope was mailed to the 40 agricultural education programs. Two weeks after the initial mailing a letter was mailed to each teacher of a non-respondent program asking them to complete and return the questionnaires. During the week of January 4, 2000 the researchers telephoned all remaining non-respondents. Telephone follow-ups, with additional packets mailed in some cases, continued from January 4, 2000 through April 28, 2000. The non-member portion of the study had a useable response rate of 63%. Of the 500 in the sample 220 useable responses were received, 150 were classified as unusable responses, and 130 were non-respondents.

Findings

All four of the demographic variables showed statistically significant differences between FFA members and non-members (See Table 1). Two-thirds of FFA members reported they had a parent and/or sibling who had been in agricultural education, FFA, or 4-H whereas less than one-third of non-members reported a family member with previous agricultural education or 4-H experience. A greater percentage of FFA members reported they lived on a farm, whereas a greater percentage of non-members reported living in a city. Almost one-half of FFA members were current or former 4-H members, whereas almost one-fourth of non-members were current or former 4-H members. Two-thirds of FFA members and two-fifths of non-members reported they currently had a Supervised Agricultural Experience (SAE).

Table 1
Demographic Characteristics of FFA Members and Non-Members

Category	Response	FFA Members		Non-Members	
		<i>n</i>	%	<i>n</i>	%
Parents/Siblings in AgEd/FFA/4-H*					
	Yes	150	68.5	63	29.6
	No	69	31.5	150	70.4
Live on ^{a*}					
	Farm	67	30.6	29	13.4
	Rural	117	53.4	132	61.1
	Urban	31	14.2	38	17.6
	City	4	1.8	17	7.9
4-H Member*					
	Yes, current member	39	18.0	9	4.2
	No, former member	67	30.9	43	20.2
	No	111	51.2	161	75.6
Have an SAE*					
	Yes	134	66.3	75	38.5
	No	68	33.7	120	61.5

^aUrban = area with subdivisions, stoplights, lots of stores. City = area with little open space except for parks, shopping malls, is one of most populated areas of the state.

*Statistically significant at $p < .05$ set a priori

Members of the FFA and non-members were asked to rate their perception of the importance of high school courses (See Table 2). There were no statistically significant differences between the two groups for 14 of the 17 listed courses.

Members of the FFA had a statistically significant higher mean than non-members for agricultural education and history/social studies. Non-members had a statistically significant higher mean than FFA members for health/sex education.

Table 2
Ratings of the Importance of High School Courses by FFA Members and Non-Members

Category	FFA Members			Non-Members		
	<i>n</i>	<i>M^a</i>	<i>SD</i>	<i>n</i>	<i>M^a</i>	<i>SD</i>
Math	210	3.25	.90	205	3.18	.94
Computers	209	3.06	.89	204	3.07	.98
English	209	3.08	.88	205	2.93	1.01
Business	207	2.99	.85	205	2.95	.85
Agric. Ed.*	210	3.02	.92	205	2.48	.91
Science	210	2.96	.93	205	2.76	.99
Vocational	209	2.90	.98	204	2.73	1.01
History/Social Studies*	210	2.71	.98	205	2.48	.93
Religion	210	2.67	1.13	204	2.54	1.18
Government	210	2.56	.97	205	2.53	.91
Phys. Ed.	209	2.60	1.01	205	2.48	1.03
Family and Consumer Science	210	2.46	.99	205	2.57	.97
Health/Sex Ed. *	210	2.46	1.07	205	2.74	1.01
Foreign Languages	210	2.28	.98	205	2.31	1.07
Music	209	1.94	1.02	205	2.13	1.02
Drama	210	1.76	.98	205	1.69	.87
Art	209	1.86	.95	205	2.04	1.02

^a1 = Not Important, 2 = Somewhat Important, 3 = Important, 4 = Very Important

*Statistically significant at the $p < .05$ set a priori

Members of the FFA and non-members were asked their attitudes regarding their agricultural education classes (See Table 3). Members of the FFA had statistically significant higher means than non-members for all five questions. Members of the FFA

were in greater agreement than non-members that their agriculture classes were preparing them for the future, challenging, interesting, exciting, and accepting of open discussion. Non-members disagreed that their agriculture classes were challenging.

Table 3
Attitudes Toward Their Agriculture Classes by FFA Members and Non-Members

Category	FFA Members			Non-Members		
	<i>n</i>	<i>M^a</i>	<i>SD</i>	<i>n</i>	<i>M^a</i>	<i>SD</i>
My ag. classes are interesting*	210	3.27	.72	207	2.93	.77
My ag. classes allow for open discussion*	209	3.21	.75	207	2.80	.86
My ag. classes are exciting*	210	3.20	.77	208	2.66	.87
My ag. classes are preparing me for the future*	210	3.15	.70	208	2.58	.89
My ag. classes are challenging*	210	2.72	.78	208	2.30	.78

^a1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree

*Statistically significant at the $p < .05$ set a priori

Members of the FFA and non-members were asked through an open-ended question "What or who influenced you to enroll in agricultural education classes" (See Table 4). There were no statistically significant differences between the two groups for any of the categories. Both groups had the

greatest percentage of respondents answer that "Self" was the reason for enrolling. The category of "Other" included responses such as "guidance counselor placed me in the class," "no other class fit my schedule," and "a teacher other than my agriculture teacher."

Table 4
Influencers to Enroll in Agricultural Education Classes by FFA Members and Non-Members

Category ^a	FFA Members		Non-Members	
	<i>n</i>	%	<i>n</i>	%
Self	83	40.3	90	46.6
Agriculture Teacher	36	17.5	20	10.4
Friends	26	12.6	23	11.9
Parents	20	9.7	19	9.8
Siblings	18	8.7	11	5.7
Other	17	8.3	26	13.5
Other family	6	2.9	4	2.1

^aSelf-reported and converted by the researchers to categories.

*Statistically significant at the $p < .05$ set a priori

Members of the FFA were asked through an open-ended question “What or who influenced you to join the FFA” (See Table 5). The top four responses from highest percentage to lowest were “agriculture teacher,” “self,” “parents,” and “siblings.” The category of “Other” included responses such as “friend’s father,” “other FFA members,” and “a teacher other than my agriculture teacher.”

Non-members were asked through an open-ended question “I am not in FFA because” (See Table 6). Almost one-half of the respondents responded that “not interested in the FFA” was the reason for not joining. The next three responses from highest percentage to lowest were “not enough time,” “don’t know much about it,” and “money.” The category of “teacher” was identified by one respondent.

Table 5
Influencers to Join FFA by FFA Members

Category ^a	FFA Members	
	<i>n</i>	%
Agriculture Teacher	49	22.8
Self	38	17.7
Parents	34	15.8
Siblings	34	15.8
Friends	32	14.9
Other	19	8.8
Other family	9	4.2

^aSelf-reported and converted by the researchers to categories.

Table 6
Influencers Not to Join FFA by Non-Members

Category ^a	Non-Members	
	<i>n</i>	%
Not interested	100	49.0
Not enough time	64	31.4
Don’t know much about it	22	10.8
Money	8	3.9
Don’t see benefits	5	2.5
Wouldn’t fit in	3	1.5
Don’t have high enough grades	1	0.5
Teacher	1	0.5

^aSelf-reported and converted by the researchers to categories.

Non-members were asked to rate seven barriers on a scale of one to seven, with “1” being the greatest barrier, to enrolling in the FFA (See Table 7). One-fourth of the respondents ranked “takes too much time” as the greatest barrier to joining FFA. This response was also the greatest barrier identified when responses were ranked by mean from lowest to highest. “The purpose of FFA isn’t attractive” and “FFA is not interesting” were the second and third greatest barriers. The barrier of “my agriculture teacher” received the lowest mean rating indicating students felt it was the least likely barrier to joining the FFA of any of the seven choices.

Members of the FFA were asked to indicate their highest level of involvement for several FFA activities (See Table 8). About one in three respondents identified Star Greenhand or Star Chapter FFA as their highest award. Another one in three stated they had not received any award in the FFA. A little less than one-half of the respondents

identified the Greenhand degree as their highest degree. About one-half of the respondents selected Committee Member as their highest office. Another two-fifths responded that Chapter Officer was their highest office. The question “My highest level on a Career Development Event (CDE) team or judging team is ____” was asked of FFA members. Approximately two-fifths responded they never participated in a CDE. Approximately 46% had participated in a CDE above the chapter level. The question “The highest level I’ve participated in a Leadership event such as public speaking or demonstrations is ____” was asked of FFA members. One-half responded they never participated in a leadership event as defined by this question. Approximately one-third had participated in a leadership event above the chapter level. The question “The highest level I have submitted a proficiency award is ____” was asked of FFA members. Almost two-thirds responded they had never submitted a proficiency award application.

Table 7
Barriers to Joining the FFA by Non-Members

Category ^a	<i>n</i>	<i>M</i>	<i>SD</i>	% Ranking #1
Takes too much time	179	2.98	1.68	25.1
The purpose of FFA isn’t attractive	178	3.35	1.76	16.3
FFA is not interesting	178	3.56	1.78	17.4
It won’t help me in the future	179	3.97	1.87	11.2
Costs too much money	179	4.23	2.03	13.4
Transportation	179	4.34	1.96	12.3
My agriculture teacher	179	5.53	1.84	5.0

^aRespondents ranked seven items as 1-7 with 1 being the greatest barrier.

Table 8
FFA Involvement by FFA Members

Category	Response	<i>n</i>	%
Highest Award	STAR Greenhand or Chapter FFA	46	29.9
	None	45	29.2
	Others (top fruit sales, etc.)	26	16.9
	Proficiency	24	15.6
	Individual	10	6.5
	Team	3	1.9
Highest Degree	Greenhand	82	46.6
	Chapter	58	33.0
	State	27	15.3
	American	9	5.1
Highest Office	Committee member	89	48.6
	Committee chair	15	8.2
	Chapter officer	68	37.2
	District officer	6	3.3
	State officer	5	2.7
Highest CDE Participation	Never participated in a CDE	97	44.9
	Chapter CDE	19	8.8
	District CDE	45	20.8
	State CDE	40	18.5
	National CDE	15	6.9
Highest Leadership Event	Never participated in leadership event	109	50.2
	Chapter leadership	33	15.2
	District leadership	44	20.3
	State leadership	29	13.4
	National leadership	2	0.9
Highest Proficiency Award	Never submitted proficiency	137	64.9
	Chapter proficiency	34	16.1
	District proficiency	20	9.5
	State proficiency	14	6.6
	National proficiency	6	2.8

Conclusions, Implications, and Recommendations

Members of the FFA more than non-members had a higher percentage that were current or former 4-H members, a higher percentage that had parents or siblings who were in agricultural education or 4-H, and a higher percentage self-reported that they lived on a farm. A higher percentage of FFA members than non-members reported

that they had an SAE. This supports the findings of Connors, Moore, and Elliot (1990) that agricultural education students join the FFA because of an interest in agriculture.

This implies that FFA members are more connected to agriculture and that the core of traditional agriculture students continues to gain benefits from the FFA and its activities. It is recommended that efforts to diversify FFA membership to students outside of

traditional agriculture demographics be continued. In the effort to broaden the scope of FFA programs and services; however, it is further recommended that traditional aspects of FFA not be de-emphasized to the detriment of these core traditional agriculture students.

Members of the FFA more than non-members believe that their agriculture classes are preparing them for the future, are challenging, interesting, exciting, and allow for open discussion. This supports the findings of Marshall, Herring, and Briers (1992) that students enroll because of characteristics of the class. Members of the FFA and non-members rated the importance of high school courses mostly the same. Members of the FFA rated Health/Sex Education of less importance and Agricultural Education and History/Social Studies of higher importance than did non-members.

The implication from this study is that students who are FFA members see greater value in their agricultural education classes; therefore, they are more engaged in their agricultural education classes as evidenced by their participation in activities through membership in the National FFA Organization. It is recommended that methods be identified to convince non-members of the value of their agricultural education classes, so they will find those classes more challenging, interesting, exciting, and of more importance as well. Without joining the debate on whether 100% FFA membership and 100% SAE participation for all agricultural education students should be a requirement for enrollment in agricultural education classes, and if so what form should it take, it is recommended that all agricultural education students be counted and treated as local FFA members and all agricultural education students receive instruction in career exploration and on career opportunities.

Both FFA members and non-members reported that reasons internal to themselves were the greatest influencer for enrolling in agricultural education classes. This finding is new to the literature base and needs further exploration. FFA members more than non-members were influenced to enroll in agriculture class because of the

agriculture teacher. Non-members were more influenced to enroll by other factors beyond their control such as guidance putting them in the class and the agriculture class being the only class that would fit their schedule. The agriculture teacher was the greatest influence on students joining the FFA. Non-members reported that their three greatest barriers to joining FFA were they were not interested, did not have enough time, and did not know much about the FFA. When asked to rank stated barriers, the three identified as the greatest barriers were FFA takes too much time, the purpose of FFA is not attractive to me, and FFA is not interesting. These last findings support the work by Gliem and Gliem (2000).

This implies that it will be extremely difficult to persuade someone to join FFA if they are not interested. Additionally, students may be saying, "I don't have enough time" as another way of stating they are not interested. The response of "self" as a reason for enrolling needs to be explored further as the researchers do not know whether the respondents meant no one influenced them, or even though someone might have influenced them they made the decision themselves, or something else altogether.

The implication from non-members is that they are not in agricultural education classes because of agriculture or a desire to learn about agriculture, but because of other factors (guidance, like the agriculture teacher, only class that would fit schedule, etc.). A question that needs to be asked is "How can these students become engaged in the FFA component of the agricultural education program?" It is recommended that further research be conducted to identify levels of interest or motivations for students in agricultural education classes. It is recommended that emphasis for involvement at the local level be the force for connecting non-members to the agricultural education model. Most students will never see the National FFA Convention or travel to Washington, D. C. to attend the Washington Leadership Conference. However, local plant sales, landscaping a town's nursing home, or cleaning up a local waterway could influence many agricultural education students who are not joining FFA

to reconsider the benefits of membership including career exploration and personal development opportunities.

A little less than one-third of the FFA members reported that they had not received any award in FFA and almost one-half checked that their highest office was that of committee member (which was the lowest level of participation listed for that question in the survey). Two-fifths had never participated in a CDE, one-half had never participated in a leadership event, and two-thirds had never completed a proficiency award application. One-third did not have an SAE at the time of the survey.

This implies that involvement of a greater percentage of the general membership in FFA activities could persuade agricultural education students who are not FFA members to become involved. A recommendation is that agriculture teachers should actively involve a greater percentage of their current membership in all FFA activities, but especially those on the local level. This will spread the benefits of FFA involvement to more members and may help in recruiting agricultural education students who are not FFA members to join. In order to allow involvement of more students, three recommendations are proposed. First, the value of maximizing participation in the FFA by all agricultural education students should be taught in preservice teacher education programs. Second, inservice for current agriculture teachers should highlight the value of all agricultural education students participating in the FFA on the local level. Third, it is recommended that the National FFA Organization explore the feasibility of weighting the National Chapter Award Program to recognize FFA chapters engaging the greatest percentage of agricultural education students in FFA activities to include all levels (local, state, national).

References

A Guide to Local Program Success. (1998). Alexandria, VA: National Council for Agricultural Education.

Astin, A. W. (1993). *What matters in college? Four critical years revisited.* San Francisco: Jossey-Bass.

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.

Brown, B. B., & Theobald, W. (1998). Learning context beyond the classroom: Extracurricular activities, community organizations, and peer groups. In K. Borman & B. Schneider (Eds.), *The adolescent years: Social influences and educational challenges* (pp. 109-141). Chicago: The National Society for the Study of Education.

Connors, J., Moore, E., & Elliot, J. (1990). Factors influencing secondary Michigan agricultural students' decisions not to join the FFA. *The 17th Annual Proceedings of the National Agricultural Education Research Meeting*, 16, 19-26.

Croom, D. B., & Flowers, J. L. (2000). The image factor: Perceptions of the FFA organization by members and non-members. *Proceedings of the 27th Annual National Agricultural Education Research Conference*, 27, 391-402.

Dailey, A. L., Conroy, C. A., & Shelley-Tolbert, C. A. (2001). Using agricultural education as the context to teach life skills. *Journal of Agricultural Education*, 42 (1), 10-19.

Dillman, D. A. (1978). *Mail and telephone surveys: the total design method.* New York: Wiley.

Gliem, J., & Gliem, R. (1999). Using multivariate analysis techniques to identify factors influencing FFA membership in high school agricultural education programs. *Proceedings of the 26th Annual National Agricultural Education Research Conference*, 26, 136-146.

Gliem, R., & Gliem, J. (2000). Factors

that encouraged, discouraged, and would encourage students in secondary agricultural education programs to join the FFA.

Proceedings of the 27th Annual National Agricultural Education Research Conference, 27, 251-263.

Hoover, T. S., & Scanlon, D. C. (1991). Recruitment practices: A national survey of agricultural educators. *Journal of Agricultural Education*, 32 (3), 29-34.

Keith, L. (1998). The value of 4-H competitive activities as perceived by the parents of 4-H members. *Journal of Agricultural Education*, 39 (3), 41-50.

Lockaby, J. (1998). Teaching values in agricultural education. *Proceedings of the 17th Annual Western Region Agricultural Education Research Meeting*, 17, 166-177.

Marshall, T., Herring, D., & Briers, G. (1992). Factors associated with enrollment in agricultural science and membership in the FFA in Texas. *Journal of Agricultural Education*, 33 (4), 17-23.

Miller, L. E., & Smith, K. L. (1983). Handling nonresponse issues. *Journal of Extension*, 21 (September/October), p. 45.

National FFA Organization (2000). *FFA Student Handbook*. Indianapolis, IN: Author.

Phipps, L. J., & Osborne, E. W. (1988). *Handbook on agricultural education in public schools (5th Edition)*. Danville, Illinois: The Interstate Printers and Publishers.

Reis, R., & Kahler, A. A. (1997). Factors influencing enrollment in agricultural education programs as expressed by Iowa secondary agricultural education students. *Journal of Agricultural Education*, 38 (2), 38-48.

Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: Wiley.

Stagg, B., & Staller, B. (1999). Will FFA be a part of agricultural education in twenty years? *The Agricultural Education Magazine*, 71 (5), 1, 19.

Staller, B. (2001). Teachers as moves managers. *FFA Advisors Making a Difference*, 9 (7), 13.

B. ALLEN TALBERT is an Associate Professor in the Department of Youth Development and Agricultural Education at Purdue University, 100 North University Street, Beering Hall, Room 3158, West Lafayette, IN 47907. Email: btalbert@purdue.edu.

MARK A. BALSCHWEID is an Assistant Professor in the Department of Youth Development and Agricultural Education at Purdue University, 100 North University Street, Beering Hall, Room 3156, West Lafayette, IN 47907. Email: markb@purdue.edu.