

should be typical of the diverse scope of farming in the geographical region being served by the program.

8. CONTACT WITH INDUSTRY: Diploma programs and the subject matter content should be subject to

review by farmers and agricultural employers who are well respected by their peers. Representative examples of employment possibilities for graduates must be supplied to students and perspective students.

Factors Associated With Enrollment In Agricultural Curricula at Land Grant Universities

John W. Slocombe

Background

Enrollment in agricultural curricula at land grant universities has declined nearly 25 percent in the past five years. This trend coupled with the shortage of agricultural scientists and an unusually high percent of faculty who are of retirement age, has created a national concern for the expertise needed to respond to the challenges of the 21st Century (Reisch 1984). As a result of this dilemma, many institutions have taken a renewed interest in recruiting. Reisch (1984) indicated there are few recruitment techniques which have not already been tried. For several years university faculty have extolled the career opportunities in agriculture without really knowing the needs or desires of prospective students. Today, however, faculty must utilize recruitment techniques that will attract rural, urban and suburban students to agricultural curricula.

According to Bowen and Lee (1984), several studies have described and established profiles for students enrolled in agricultural curricula. The National Association of State Universities and Land Grant Colleges does this on a limited basis by reporting the enrollments in agricultural curricula for colleges in the United States. Daluge and Thompson (1981) introduced a time variable into their study of students applying for admission to the University of Wisconsin-Madison, College of Agriculture and Life Sciences. These researchers studied both the characteristics of students applying for admission in the fall of 1975 and their status four years later.

Cole (1985), Findlay and Rawls (1984), and Bowen and Lee (1984) found that parents and college professors provided the most influence on students to major in an agricultural curricula. Similarly, Cole (1985), Faulks (1969), and Miller et al. (1984) found the vocational agriculture instructor influenced students the most to major in agricultural education. Additionally, these researchers reported other factors that had varying degrees of influence on students enrolling in an agricultural curricula. These factors included cooperative extension personnel, friends, high school counselors, 4-H leaders, university students, and other high school teachers. The degree of influence these factors represented was associated with personal and situational characteristics of the students.

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Purpose and Objectives

The purpose of this study was to determine factors associated with students' decisions to attend the University of Idaho (U of I) and enroll in the College of Agriculture. The specific objectives were:

1. to describe the personal and situational characteristics of students entering the College of Agriculture at the U of I.
2. to identify factors associated with students' decisions to attend the U of I.
3. to identify factors associated with students' decisions to enroll in the College of Agriculture at the U of I.
4. to determine the relationship between selected personal and situational characteristics of students and the dependent variables.

Procedures

The population consisted of all freshman and transfer students enrolled in the College of Agriculture at the U of I fall semester 1984. The entire population of 103 students was used in this study.

A two-part instrument was developed to collect data. The first part included factors associated with students' decisions to attend the U of I and enroll in the College of Agriculture. A four point importance scale was used to quantify the influence each factor had on a student's decision to attend the U of I and enroll in an agricultural curricula. In the second part of the instrument, students were instructed to provide personal and situational information. The response framework consisted of multiple-choice, dichotomous, and completion items. The instrument was field tested on 20 randomly selected agriculture majors who were not part of the study. Final refinement was made to the instrument upon completion of the field test. Instrument validity was established by a panel of experts consisting of five faculty, three administrators, one graduate student, one undergraduate student, and two alumnus of the College of Agriculture. Tests to determine instrument internal consistency were judged inappropriate in this situation because of the independent nature of each item.

Data were collected from 100 percent of the population; however, usable data were received from 97 students. Percentages were used to analyze personal and situational data. The population data was nominal and ordinal levels; thus, chi-square was used in

analyzing the dependent variables when grouped with selected characteristics. According to Blalock (1979):

Tests of significance can be used if the researcher is satisfied with generalizations to fixed populations, and does not wish to make inferences about the casual processes that may have generated the population data.

The .05 level of significance was used for interpreting the findings of this study.

Results

Over 29 percent of the students were enrolled in the Home Economics curriculum and 27 percent were enrolled in the Animal Science and Veterinary Science curricula. The curricula possessing the lowest enrollments were: (1) Plant Science, (2) Agricultural Education, (3) Agricultural Mechanization, (4) General Agriculture, (5) Soil Science, (6) Bacteriology, and (7) Entomology respectively. The average high school grade point average was 3.22 on a 4.00 scale. Over one-third of the students were raised on a farm or ranch while one-fourth were raised in a small town. On the average, students had 3.40 years of farm experience, 2.60 years of non-farm employment experience, and 2.44 years of non-agricultural employment experience. Fifty-two percent of the students graduated from high school in 1984; however, 63 percent did not complete any semesters of vocational agriculture. The average length of membership in the Future Farmers of America (FFA) organization was 3.03 years and 5.08 years in 4-H. Over 44 percent of the students received scholarships to attend the U of I campus prior to enrollment was low. Less than 30 percent of the students visited the campus or participated in 4-H, athletics, FFA, Future Homemakers of America (FHA), and symposium activities on the U of I campus prior to enrollment. This finding indicates that conducting these activities on the U of I campus attracted a small number of students who actually enrolled in the College of Agriculture.

Table 1 shows that parent(s) and/or guardian(s) and university students influenced students most to attend the U of I. Even though 29 percent of the students visited the campus prior to enrolling in agriculture, this was the third most influential factor. Additionally, friends and university literature ranked as the fourth and fifth most influential factors respectively. The remaining factors contributed similar degrees of influence on students' decisions to attend the U of I.

Factors influencing freshman and transfer students to enroll in the College of Agriculture were similar. As shown in Table 2, parent(s) and/or guardian(s) had the most influence. This finding supports allied research by Bowen and Lee (1984) and Cole (1985). They concluded that parents and/or guardians were the most influential factor associated with students' decisions to enroll in agricultural curricula. University literature, friends, university students, campus visitations, and the vocational agriculture instructor were second, third,

Table 1. Factors Associated With Students' Decisions to Attend the University of Idaho.

Factor	\bar{X} *
Parent(s) and/or guardian(s)	2.53
University student(s)	2.50
Campus visit	2.33
Friends	2.29
University literature	2.20
High school counselor	1.71
Cooperative extension personnel	1.61
Vocational agriculture instructor	1.60
Other high school instructors	1.52
4-H leader(s)	1.36

*N = 97 students

fourth, fifth, and sixth most influential factors respectively. The remaining factors contributed similar degrees of influence to students' decisions to enroll in an agricultural curriculum.

Table 2. Factors Associated with Students' Decisions to Enroll in the College of Agriculture.

Factor	\bar{X} *
Parent(s) and/or guardian(s)	2.44
University literature	1.97
Friends	1.85
University student(s)	1.78
Campus visit	1.73
Vocational agriculture instructor	1.71
Other high school instructors	1.56
High school counselor	1.56
Cooperative extension personnel	1.51
4-H leader(s)	1.42

*N = 97 students

To analyze the relationship between the dependent variables and student characteristics and situations, the four point importance scale was recoded into the two categories of little importance and great importance. This was done to avoid cell frequencies of less than five. The results of these analyses are reported in the following paragraphs.

The dependent variable that revealed the greatest relationship and most deviation from the expected, was the influence university students had on students' decisions to attend the U of I. As shown in Table 3, students indicated university student contact was strongly associated with their decision to attend the U of I. The largest relationship occurred with students living on a farm or in a rural area. A chi-square statistic of 6.750 revealed a highly significant relationship occurred between these variables at the .01 alpha level.

Table 3. University Student Influence on Students' Decisions to Attend the U of I by Home Residence Location

Home Residence	Little		Great		Total	
	N	%	N	%	N	%
Farm or rural area	17	19.5	34	39.1	51	58.6
Urban or small town	23	26.4	13	14.9	36	41.4
Total	40	46.0	47	54.0	87	100.0

Chi-square value = 6.750**

** p < .01

Table 4. Literature Influence on Students' Decisions to Attend the U of I by Home Residence Location

Home Residence	Little		Great		Total	
	N	%	N	%	N	%
Farm or rural area	24	28.6	26	31.0	50	59.5
Urban or small town	26	31.0	8	9.5	34	40.5
Total	50	59.5	34	40.5	84	100.0

Chi-square value = 5.673**

** p < .01

Table 4 shows a highly significant association existed between university literature and students' decisions to attend the U of I. Once again, the strongest association occurred between students living on a farm or in a rural area. Over 40 percent of the population indicated this factor greatly influenced their decision to attend the U of I.

To alleviate cell frequencies of less than five, students enrolled in the ten agricultural curricula were grouped into one category identified as agriculture. The data were analyzed to determine the relationship of the dependent variables on curricula choice in agriculture or home economics.

Shown in Table 5, a highly significant relationship existed between cooperative extension personnel influence on students' curricula choice. Eighty-one percent of the population indicated cooperative extension personnel had little influence on curricula choice in agriculture or home economics. A chi-square statistic of 5.913 indicated these variables were related to the .01 alpha level.

Table 5. Cooperative Extension Personnel Influence on Student Curriculum Choice

Curricula	Little		Great		Total	
	N	%	N	%	N	%
Agriculture	51	60.7	7	8.3	58	69.0
Home Economics	17	20.2	9	10.7	26	31.0
Total	68	81.0	16	19.0	84	100.0

Chi-Square value = 5.918**

** p < .01

Traditionally, peers have influenced student curriculum choice. Table 6 shows that friends were not associated with curriculum choice for 69 percent of the population. Only 10 percent of the students majoring in agriculture and 20 percent of those majoring in home economics indicated peer influence was of great importance. A chi-square statistic of 3.500 indicated these variables were related to the .05 alpha level.

Table 6. Friend Influence on Student Curriculum Choice.

Curricula	Little		Great		Total	
	N	%	N	%	N	%
Agriculture	33	37.9	9	10.3	42	48.3
Home Economics	27	31.0	18	20.7	45	51.7
Total	60	69.0	27	31.0	87	100.0

Chi-square value = 3.500*

* p < .05

Finally, there was a relationship between campus visitation influence on curriculum choice when

grouped by high school grade point average. As shown in Table 7, students with a low grade point average (1.90-3.16) indicated there was a greater relationship between campus visitation and curriculum choice than students with a high grade point average (3.20-4.00). Miller et al. (1984) recommended that students who have B average grades in high school vocational agriculture should be recruited to pursue careers in agriculture. A chi-square statistic of 3.705 indicated a relationship existed between these variables at the .05 alpha level.

Table 7. Campus Visitation Influence on Student Curricula Choice by High School Grade Point Average

Grade Point Average	Little		Great		Total	
	N	%	N	%	N	%
Low	24	30.3	14	17.9	38	48.7
High	33	42.3	7	9.0	40	51.3
Total	57	73.1	21	26.9	78	100.0

Chi-square value = 3.705*

* p < .05

Conclusions and Recommendations

The students were generally from rural areas of Idaho; held high regards for quality education as indicated by their high school grade point average and high percentage of scholarship recipients; and recognized the value of campus visitations prior to attending the U of I and enrolling in the College of Agriculture. Faculty and administration in colleges of agriculture should consider student characteristics when planning and implementing recruitment activities to achieve maximum effectiveness.

The most influential factors associated with students' decisions to attend the U of I were: (1) parent(s) and/or guardian(s), (2) university students, (3) campus visitations, (4) friends, and (5) university literature. Further, a highly significant relationship existed between: (1) university literature influence and students living on a farm or in a rural area, and (2) university student influence and students living on a farm or in a rural area. These findings emphasize the importance for land grant universities and colleges of agriculture to use recruitment literature that is of high quality print, colorful, and informative. Further, selected university students should be used extensively to recruit students. These students could earn university credit or financial compensation to encourage high quality and enthusiastic participation.

The most influential factors associated with students' decisions to enroll in the College of Agriculture were: (1) parent(s) and/or guardian(s), (2) university literature, (3) friends, (4) university students, (5) campus visitations, and (6) the vocational agriculture instructor. A highly significant relationship existed between cooperative extension personnel and students' curriculum choice. A significant relationship existed between friends and students' curriculum choice. Finally, a significant relationship existed between campus visitation influence on student curriculum choice and high school grade point

average. Students with a high grade point average indicated campus visitations were of little value. These findings imply that college faculty and administrators should acquaint parents with the various curricula through quality university literature and personal visitations. This could be accomplished through meetings for prospective students and their parents in various areas throughout the state. To enhance the effectiveness of the meetings, university students, vocational agriculture instructors, cooperative extension personnel, and 4-H leaders should participate in the program.

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FALL MEETING MINUTES NACTA EXECUTIVE COMMITTEE September 27, 1986

The meeting was called to order at 4:00 p.m. by President Kirst in the St. Louis Airport Holiday Inn.

Executive Committee members present included Kirst, Burger, Irwin, Brown, Everly, Stanly, Brand, Wright, Buckhouse, Sorensen, and Brimmer. Committee Chairmen present were Mertz, Severance, and Waldren. An agenda was distributed by the President and was accepted. A copy is attached.

The minutes of meetings at the 1986 Annual NACTA Conference were approved as distributed.

The President presented his report which was approved as given. A copy is attached.

A motion was passed designating the 1987 NACTA Distinguished Educator awardee.

A motion was approved to reimburse the Vice President's travel expenses to address the National Leadership Conference for Leaders in Post-Secondary and Adult Education in Agriculture, Kansas City, October 2-4, 1986.

Reports from the NACTA and the Foundation Secretary-Treasurer were presented and accepted. Copies are attached.

Publications Committee and Editor's reports were given by the NACTA Journal Editor. A motion was passed to accept these reports. Copies are attached.

The Historian's report was presented and accepted. A copy is attached.

Reports from the NACTA Regional Directors were presented. Canadian, Central, Eastern, Southern, and Western reports were accepted. Copies of these reports are attached.

A report of the E.B. Knight NACTA Journal Awards Committee, given by its Chairman, was accepted. A copy is attached.

The Teacher Recognition Committee report was approved as presented and a copy is attached.

A report of the Improvement of Teaching Committee was given by its Chairman. A copy of the report is attached.

No report was received from the Book Review Board. A copy of the report received, subsequently, is attached.

No report was received from the Instructional Media Board.

A report was received from the International Programs in Agriculture Committee. The report was accepted and a copy is attached.

A report of the Governmental Affairs Committee is attached. The report was accepted as submitted.

A report was received from the Instructional Materials Exchange Board. It was accepted and a copy is attached.

A report of the NACTA Judging Team Activity Committee was received. The 1987 contest now is slated for El Reno, Oklahoma. Six contests including dairy, livestock, horses, crops, horticulture, and soils are scheduled. The 1988 contest is to be held at River Falls, Wisconsin, and the 1989 contests at some institution in Illinois.

A motion was passed for NACTA to underwrite a sweepstakes award up to \$55.00 for the 1987 NACTA Judging Contest, providing that the constitutional rules be followed and that a contest summary be made at the 1987 Annual NACTA Conference. Notices of the contest will be published in the December 1986 and March 1987 NACTA Journals.

The Delta Tau Alpha Liaison Committee report was given and accepted. A copy is attached.

Correspondence was received from the Educational Testing Services. After discussion, a motion was passed for the NACTA Improvement of Teaching Committee to accept the invitation to serve as a liaison for NACTA with the Educational Testing Service in updating the Agriculture Test for the National Teachers Examination Program.

A discussion of the 1987 and 1988 Annual NACTA programs followed.

A motion was passed to increase the Library membership dues immediately to \$20.00 per year for the U.S. and \$25.00 per year for all others. Institutional Active dues for 1988 are to be \$20.00, and Active and Associate memberships are to be \$25.00. Life memberships will increase to \$200.00.

A motion to authorize the President, Secretary-Treasurer, and Editor to take out a loan for an electronic publishing system was passed.

There being no further business, the Fall Executive Committee meeting was adjourned at 8:45 p.m.

Murray A. Brown
NACTA Secretary-Treasurer

AGENDA

NACTA Executive Committee

September 27-28, 1986

St. Louis Airport Holiday Inn, 4545 N. Lindberg
Bridgeton, MO 63044

1. Call to order - 4:00 p.m. Saturday, September 27
 - (a) Approval of Agenda
 - (b) Approval of Minutes of Executive Committee at Annual Conference June 15-18, 1986, Ridgetown, Ontario
2. Report of Officers and Directors
 - (a) President Robert C. Kirst
 - (b) Immediate Past President A.W. "Tom" Burger
 - (c) Vice-President Lyndon Irwin
 - (d) Secretary-Treasurer Murray Brown
 - (e) Editor Jack Everly