

Relationship of Occupational Status and Attitudes About Vocational Agriculture

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Accountability has been an important concern in vocational education for several years. The Vocational Amendments of 1976 specifically emphasize accountability and the need for evaluative data concerning the effectiveness of programs. More recently, some states have passed specific legislation requiring programs to be accountable for expenditures. For example, Florida has recently enacted legislation that sets minimum placement and completion standards for all vocational programs.

An important source of evaluative data for vocational education programs is the graduates of those programs. In addition to knowing placement and completion rates, it is important to have an understanding of student attitudes about the educational experiences they received while enrolled in vocational agriculture.

In the first phase of this study (Arrington & Price, 1983), the attitudes of high school seniors about experiences received while enrolled in vocational agriculture were determined. In addition, the study identified demographic variables that were related to seniors' attitudes about experiences in vocational agriculture. Data for Phase I were collected in March of their senior year.

The primary purpose of the current study (Phase II) was to determine student attitudes about their experiences in vocational agriculture one year after completing the program and determine if their attitudes are related to their current occupational status.

Objectives

Specifically, the study was designed to:

1. Determine the current status (one year after graduation) of 1983 program completers of Florida vocational agriculture programs with regard to occupation, further education, economic level and other pertinent demographic factors.
2. Compare the current occupational status of 1983 program completers with their pre-graduation occupational plans.
3. Appraise program completer attitudes about experiences in vocational agriculture and compare their attitudes with their pre-graduation opinion of vocational agriculture.
4. Determine if program completer attitudes about the value of vocational agriculture are related to their current occupational status, economic level, further education and demographic factors.

Procedure

Population Investigated

The population for the study consisted of all Florida high schools with vocational agriculture programs. In Phase I, each of the 333 senior high school vocational agriculture teachers was asked to have each senior student complete a brief questionnaire that identified the student's name, address, telephone number and the number of years enrolled in vocational agriculture. Ninety-three percent of the teachers responded and identified 1848 graduating seniors who had completed at least two years of vocational agriculture. From this list of 1983 program completers, a random sample of 300 students was selected for the Phase II study.

Instrumentation

A questionnaire was developed to obtain requisite information. The questionnaire was a modification of an instrument used in Phase I of the study. A Southern region and follow-up study (Iverson & Brown, 1979) questionnaire formed the basis for many of the items included on both questionnaires. The attitudinal scale used in Phase I was unchanged in Phase II.

The validity of the content of the instrument was established by a jury of selected staff members and graduate students in agricultural education and selected state department personnel. The instrument was pilot tested with a group of senior vocational agriculture students who were not included in the random sample. The reliability of the attitudinal scale was established by calculating a Cronbach's Alpha, with a resulting reliability coefficient of .90.

Data Collection and Analysis

Data for the study were collected in March, 1984, one year after Phase I data were collected. Three follow-up contacts yielded 209 (69%) returns. Twenty-seven (one-third) randomly selected non-respondents were contacted and asked to respond to selected items on the questionnaire. A descriptive analysis of this information revealed no differences between respondents and non-respondents.

Descriptive statistics were utilized to accomplish the first three objectives. For the fourth objective, each of the program evaluation statements was examined by factor analysis. Categories of evaluation statements were identified, and a multiple regression analysis was utilized to examine the relationship between the categories of evaluative statements and the independent variables.

Findings

Objective One

Data collected for objective one revealed that less than 3% of the respondents had not been an FFA member. Approximately 85% had been a member of FFA for three years or more. There were 53 (26.5%) students who had earned the State FFA Degree. Thirty-four (17.0%) students had not earned at least a greenhand degree.

Table 1 illustrates that 36.3% were employed in a non-agricultural occupation. Slightly more than 8% were full-time farmers or ranchers, and about 14% said they were a part-time farmer or rancher.

Approximately 29% of graduates were attending a college or postsecondary vocational school. Of those attending school, 28.8% were studying some area of agriculture. Eighteen (8.8%) respondents indicated they were unemployed. However, it should be noted that some of the unemployed were attending college. Over one-half (51.5%) of the respondents were involved to some degree with an occupation related to agriculture one year after graduation.

As far as economic status, two-thirds of those who reported an income were making less than \$10,000 annually. Over 19% had an annual income between \$10,000 and \$14,999. Slightly over 3% indicated their annual income was over \$35,000.

Table 1

Current Occupational Status of 1983 Program Completers (N=204)

Occupational Categories	Number	Percent
Farm	17	8.3
Farm (part-time)	28	13.7
Agricultural Occupation (other than farming)	105	42.6
Non-Agricultural Occupation	74	36.3
Post-Secondary Vocational School	16	7.8
College	43	21.1
Military	11	5.4
Don't Know	a	a
Unemployed	18	8.8

^aPercentages add up to more than 100% due to multiple responses.

Objective Two

Objective two of the study was to compare current occupational status with what students had indicated they planned to do after graduation. Phase I revealed that only 2.6% of the seniors planned to be involved in farming (see Table 2). However, 22% of the program completers indicated they were farming on a full-time or part-time basis. There were 105 (42.6%) students employed in an agricultural occupation other than farming. Data summarized in Table 2 also illustrate that over 45% of the students had indicated they planned to attend college or some other postsecondary school after graduation. However, one year after graduation, only 28.9% were attending school on a full-time or part-time basis.

Objective Three

Objective three was to determine the attitudes of program completers about experiences in vocational agriculture and compare post-graduation attitudes with those expressed prior to graduation. To measure attitudes, each person reacted to 16 statements related to their vocational agriculture experiences. A four-point Likert scale was utilized

Table 2

Comparison of Plans After Graduation with Actual Occupational Status

Occupational Categories	Pre-Graduation Plans N=310		Actual Status N=204	
	Number	Percent	Number	Percent ^a
Farm	8	2.6	17	8.3
Farm (part time)	- b	- b	28	13.7
Agricultural Occupation	35	11.3	105	42.6
Non-Agricultural Occupation	30	9.7	74	36.3
Post-Secondary Vocational School	24	7.7	16	7.8
College	117	37.7	43	21.1
Military	42	13.5	11	5.4
Don't Know	54	17.5	- b	- b
Unemployed	- b	- b	18	8.8

^aPercentages add up to more than 100% due to multiple responses. ^bNot asked.

to categorize responses. Students could strongly agree, disagree or strongly disagree with each of the items.

In general, experiences in vocational agriculture received very high ratings from the program completers (See Table 3). For the statement, "vocational agriculture taught me skills useful in production agriculture," 98.9% of the students either agreed or strongly agreed. In comparison, 99.4% had agreed or strongly agreed before graduation. When asked "would you enroll in vocational agriculture if you had it to do over again," 96.6% of the students responded positively after graduation with 96.8% responding positively before graduation. However, it should be noted that while slightly more than half (53.5%) of the students had strongly agreed with this statement before graduation, over three-fourths (77.3%) strongly agreed after graduation.

Another shift in attitudes occurred on the statement "helped me learn how to participate in meetings." Over one-half (54.6%) of the respondents strongly agreed with this statement after graduation while only 38.5% had agreed before graduation.

Two negative shifts in attitudes can be noted in Table 3. For the statement, "helped me choose an occupation," 26.5% responded negatively before graduation and 40.3% responded negatively after graduation. On a related statement, "helped me understand how to enter and advance in agricultural occupations," 6.4% of the responses were negative before graduation and 16.2% were negative after graduation.

To determine attitudes about teacher assistance received in vocational agriculture, each respondent reacted to four statements related to career guidance. Without exception, there were more students who strongly agreed with the statements after graduation. For example, 59.6% of the post-graduation respondents strongly agreed with the

Table 3

Ratings of Statements About the Vocational Agriculture Program by Students Before and After Graduation

Statement About Vocational Agriculture Experiences	Percentages of Responses				Mean Response
	Strongly Agree	Agree	Disagree	Strongly Disagree	
Taught me skills useful in production agriculture	34.00	65.40	0.30	0.30	3.33 (B)
	50.70	47.30	1.50	0.50	3.48 (A)
Taught me skills useful in agribusiness and natural resources	24.80	68.60	6.40	0.30	3.18 (B)
	38.50	51.20	8.30	2.00	3.26 (A)
Helped me learn how to participate in meetings	38.50	54.80	5.80	1.00	3.30 (B)
	54.60	36.70	6.80	1.20	3.44 (A)
Helped me choose an occupation	21.00	52.40	25.90	0.60	2.94 (B)
	22.60	36.90	34.90	5.40	2.77 (A)
Helped me develop leadership skills	38.10	54.50	7.10	0.30	3.31 (B)
	48.00	44.50	6.00	1.50	3.39 (A)
Helped me understand how to enter and advance in agricultural occupations	29.70	63.90	5.80	0.60	3.22 (B)
	31.03	52.70	13.30	2.90	3.12 (A)
Helped me to see the need to get along with others on the job	43.40	53.40	3.20	0.00	3.40 (B)
	47.80	43.90	5.40	2.90	3.37 (A)
Helped me to learn to work in production agriculture areas like farming, greenhouse, plant production or nursery operations	47.10	51.00	1.90	0.00	3.45 (B)
	53.66	41.95	3.90	0.49	3.49 (A)
Helped me learn to work in agribusiness and natural resources areas like sales and services, forestry or food production	17.90	62.80	17.90	1.20	2.97 (B)
	30.88	46.57	20.59	1.96	3.06 (A)
Helped me learn to get along with other people	36.30	61.10	2.30	0.03	3.34 (B)
	44.12	50.00	4.41	1.47	3.37 (A)
Vocational agriculture classes were good for me	46.50	51.90	1.30	0.30	3.44 (B)
	68.45	30.58	0.49	0.49	3.67 (A)
If I had to do it over, I would re-enroll in vocational agriculture	53.50	43.30	2.90	0.30	3.50 (B)
	77.30	19.32	2.90	0.48	3.73 (A)

Note. (B)=Before, 1983; (A)=After, 1984. Coded SA=4, A=3, D=2 & SD=1.

statement "provided me information on careers in agriculture." Before graduation, 36.9% had strongly agreed with this statement. Overall, attitudes about vocational agriculture teachers remained positive, these data are summarized in Table 4.

Table 4

Ratings of Statements About Teacher Assistance by Students Before and After Graduation

Statement About Teacher Assistance	Percentages of Responses				Mean Response
	Strongly Agree	Agree	Disagree	Strongly Disagree	
Encouraged me to enter an occupation in agriculture	28.80	59.60	10.60	1.00	3.16 (B)
	49.03	40.29	7.28	3.40	3.35 (A)
Encouraged me to consider attending college	27.60	49.70	22.10	0.60	3.04 (B)
	50.24	31.71	13.66	4.39	3.28 (A)
Provided me with information on careers outside of agriculture	15.70	58.00	25.60	0.60	2.88 (B)
	28.78	40.49	22.93	7.80	2.90 (A)
Provided me with information on careers within agriculture	36.90	59.90	3.20	0.00	3.33 (B)
	59.64	30.72	7.23	2.41	3.48 (A)

Note. Coded SA=4, A=3, D=2 & SD=1.

Objective Four

Objective four was to determine if student attitudes about the value of vocational agriculture related to their occupational status, economic level, further education and demographic factors. Each of the sixteen program evaluation statements was examined by factor analysis. The purpose of the factor analysis was to identify categories of program evaluation statements (constructs). Variables loading .60 or higher on a factor were considered in interpreting the meaning of the factor.

Three factors were identified and labeled as: (a) values of the program; (b) instructional program; and (c) career guidance. For the first factor, overall value of the program, four questionnaire items loaded .60 or higher: (a) vo-ag helped me develop leadership skills (.67); (b) vo-ag helped me learn to get along with other (.66); (c) vo-ag classes were good for me (.70); and (d) if I had it to do over again, I would enroll in vocational agriculture (.62). For the second factor, instructional program, three questionnaire items loaded .60 or higher: (a) vo-ag taught me skills useful in agribusiness and natural resources (.72); (b) vo-ag helped me learn to work in production agriculture (.60); and (c) vo-ag helped me learn to work in agribusiness and natural resources areas like forestry, sales and services and processing (.68). The final factor, career guidance, had three factors loading

.60 or higher: (a) my teacher encouraged me to enter an occupation in agriculture (.70); (b) my teacher encouraged me to consider attending college (.76); and (c) my teacher provided me information on careers within agriculture (.69). There were seven attitudinal factors that did not load on any of the three factors.

To determine whether the independent variables (occupational status, economic level, further education, years in FFA, highest FFA degree, marital status, race and income) were related to the attitude factors, a step-wise multiple regression analysis was conducted. The three factors identified by factor analysis were used as dependent variables. A probability level of .05 was used to determine if each independent variable significantly contributed to the explanation of variance in each factor.

For the first factor, values of the program, one variable contributed to the variance: highest FFA degree achieved. However, this variable accounted for only 9% of the variance (R^2) in this factor.

For the second factor (Instructional program) and the third factor (career guidance), none of the independent variables were significantly contributing to variance.

Conclusions

1. The majority of 1983 vocational agriculture program completers in Florida were involved to some degree in an occupation related to agriculture one year after graduation. When those who continued their education and those who entered the military are added, it accounted for over 70% of the program completers.

2. Program completers had not accurately predicted their post-high school occupational/educational plans.

3. Overall, program completers have very positive attitudes about their experiences in vocational agriculture. Attitudes had changed to be even more positive than those expressed prior to graduation.

4. Highest FFA degree earned was significantly contributing to the explanation of variance in the first attitudinal factor, values of the program.

Recommendations for Further Research

1. Additional research should examine 1983 program completers in Florida to determine their attitudes and occupational status at future points in time.

2. Other graduating classes should be examined to determine their attitudes and occupational status.

3. Similar studies should be conducted in other states to provide further comparative evaluative information on program completers in order to test the results in this study.

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