

## **A CASE STUDY**

# **The Influence of Recruitment Strategies Designed to Attract High-Ability Non-Traditional Students**

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During the late 1970's and early 1980's, fewer individuals enrolled in agricultural and life sciences programs at U.S. colleges and universities (Coulter, 1982). The Ohio State University's College of Agriculture enrollment declined from a high of 3,174 undergraduate students in 1977 to 1,858 undergraduate students by the autumn of 1986 (Staff, 1986). The decline in enrollment in the College of Agriculture parallels the drop in the number of high school graduates in the United States (Cowell, 1985). As a result, college enrollment changed from a seller's market of the early 70's to a buyer's market in the 80's (Discenza, 1985). As enrollments decline there were accompanying budget reductions. Perhaps more importantly, though, the reduced number of students who are prepared in the agricultural sciences will impact negatively on the nation's need for expertise in agriculture and natural resources.

The decline in college enrollment has been accompanied by a decline in the academic preparation of entering college students (O'Hearne, 1982). To compensate for the decline in enrollment and preparedness, colleges of agriculture have devoted substantial attention, energy and resources to recruit more academically prepared students. Frequently they have paid major attention to a new audience viz. high ability students without an agricultural background. O'Hearne, (1982) Lolli, (1983) Erdmann, (1983) Litten, (1983) and Grossman (1985) reported ways for colleges to recruit more students but, presented no evidence about the influence of recruitment activities on high-ability non-traditional students' selection of an agricultural career. The Ohio State University's College of Agriculture has devoted considerable effort to attract high-ability non-traditional students into the College.

### **Purpose of the Study**

The primary purposes of the study were to determine the extent to which high-ability non-traditional students were enrolling in the College of Agriculture at The Ohio State University and evaluate the influence of various activities on high-ability non-

traditional students' enrollment in agriculture. A high-ability student was defined as a student with a composite ACT score of 26 or higher or a combined SAT score of 1150 or higher. A non-traditional student was defined as a student who did not enroll in vocational agriculture in high school. A traditional student was defined as a student who enrolled in vocational agriculture in high school.

### **Procedures**

Descriptive research techniques were used to collect data on the influence of recruitment activities designed to attract high-ability non-traditional students to the College of Agriculture. High school data were collected on all new first quarter freshmen entering the College of Agriculture during the autumn quarters from 1981-1986. A major effort to attract high-ability non-traditional students was initiated in 1984. The data provided information about new first quarter freshmen entering the College for three years prior to the intervention of the recruitment activities and three years after the intervention.

The target population for the initial section of the study was all new first quarter freshmen ( $n = 1025$ ) enrolled in the College of Agriculture between 1981 and 1986. The target population for the interviews was all high-ability non-traditional students ( $n = 66$ ) enrolled in the College between 1984 and 1986.

The principle sources of data for the study were high school transcripts, college admission applications, and self-reports collected by personal interviews. Interview questions were developed to assess the effectiveness of recruitment activities on high-ability non-traditional students' decision to enroll in the College of Agriculture and pursue an agricultural career. Interview questions were presented to a panel of experts in the College to establish their content validity. A pilot test was conducted with ten students from the Agricultural Education 290 course.

All data were coded and analyzed using the Statistical Package for the Social Sciences (SPSSX). The analysis of the high school and interview data were accomplished through descriptive statistics.

## **Results**

### **Summary of Recruitment Activities**

The College of Agriculture at The Ohio State University initiated a marketing program to meet this challenge through a grant to Dr. K.W. Reisch and the College from the office of Higher Education, U.S.D.A.

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The College organized a seminar to develop ways of attracting students into agricultural careers. The participants developed goals for a recruitment program and made recommendations for activities to reach the goals. The activities developed as a result of the 1983 Comprehensive Planning Seminar emphasized the relationship between agriculture and science careers and the personal atmosphere at the College of Agriculture. (Reisch, 1983) Among these were "Part of the Change," a videotape depicting agricultural careers as exciting careers in science, technology, business and information processing; the Science Expo, an agricultural science workshop for science students and teachers; *The Science Workbook*, a collection of ideas for high school science projects; Agricultural Merit Scholarships, designed to attract high-ability students; and purchasing lists of high ability science students from national testing services. A number of activities were recommended to be used to inform prospective students of the relationship between agricultural and science careers. Additional activities included Agricultural and Natural Resources Career Day, a day where prospective students can explore career opportunities in the College of Agriculture; Agriculture Day on Campus, where students have the opportunity to experience college classroom life; Admission Counselor Program, which provides an individual with an opportunity to make personal contacts with prospective students; Agriculture Ambassador's Program, which utilizes college students as recruiters for the college; personal contacts with prospective students; and faculty visits to schools were planned to promote the personal atmosphere in the college.

Traditional practices of recruitment, such as booths at The Ohio State Fair, Farm Science Review and the National FFA Convention, were revised to emphasize the new goals of the College of Agriculture. The booths were staffed with faculty, administration, and students.

#### High-Ability Non-Traditional Students Enrollment

Data were collected to determine the percent of new first quarter freshmen with a composite ACT score of 26 or higher. The percent of new first quarter freshmen students with composite ACT scores of 26 or higher was 20%, 19%, 20%, 24%, 22% and 22% for 1981, 1982, 1983, 1984, 1985, and 1986, respectively. When the data were broken down into traditional students (students enrolled in high school vocational agriculture) and non-traditional students (students not enrolled in a high school vocational agriculture program), the following results were obtained. The percent of high-ability non-traditional students enrolled in the College of Agriculture increased steadily from 8% in 1982 to 14% in 1986. The percent of high-ability traditional students enrolled in the College decreased from 11% in 1982 to 8% in 1986. During this same period of time The Ohio State University instituted a conditional/unconditional admissions policy that increased the number of college

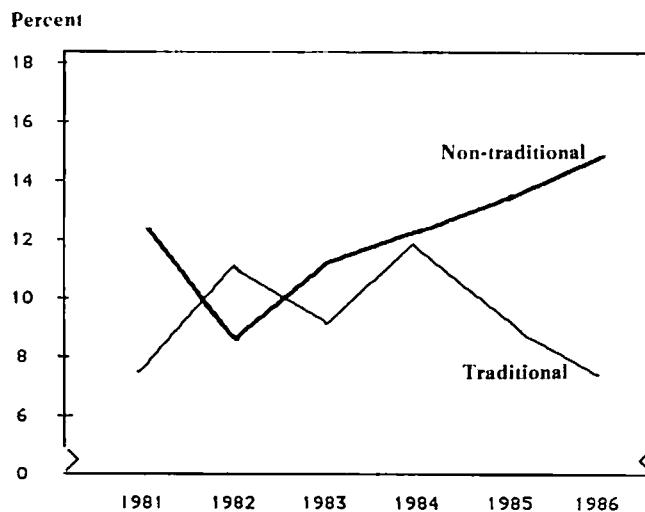


Figure 1. Percent High-Ability Students Entering the College of Agriculture of the Ohio State University.

preparatory classes required for unconditional admission to the university.

#### Description of High-Ability Non-Traditional Students Enrolled in the College between 1984 and 1986

Demographic data were collected during the interviews with high-ability non-traditional students. Five percent of the high-ability non-traditional students indicated an urban classification of their home while 71% classified their home area as rural. Forty-six percent of high-ability non-traditional students' parents owned or operated a farm or an agribusiness. Seventy-one percent of the high-ability non-traditional students had worked on a farm or an agribusiness. Seventeen percent of the high-ability non-traditional students indicated they had no agricultural experience at the time of enrollment in the College of Agriculture.

#### Influence of Recruitment Activities

The top eight recruitment activities in order of level of participation by high-ability non-traditional students were personal letters from College faculty and staff, Merit Scholarship Program, personal calls from College faculty and staff, information booth at the Farm Science Review or the Ohio State Fair, participation in Agriculture and Natural Resources Career Day, participation in Agriculture Day on Campus, "Part of the Change" videotape, and faculty visits to high schools.

High-ability non-traditional students were asked to judge the influence various recruitment activities had on their decision to attend The Ohio State University and to major in agriculture. The following activities were ranked by high-ability non-traditional students as having the most influence upon their decision: personal calls from faculty and professors in the College, participation in Agriculture and Natural Resources Career Day, personal letters from faculty and administrators in the College, information booths at the Farm Science Review and the Ohio State Fair, and the Merit Scholarship Program.

Family was the most frequently mentioned first source of information about The Ohio State University

and the College of Agriculture. Thirty-seven percent of high-ability non-traditional students indicated family as their first source of information about the College. High school guidance counselors were second with 29% of high-ability non-traditional students listing guidance counselor as their first source of information on the College. Direct mail from or requests to the College of Agriculture accounted for an additional 12% of high-ability non-traditional students first source of information about the College. Alumni and freshman orientation provided the first source of information for an additional 10% of the high-ability non-traditional students.

### Conclusions

1. The percentage of high-ability non-traditional students increased following the implementation of recruitment activities for high-ability non-traditional students. However, this was probably influenced by the conditional/unconditional admissions policy instituted by The Ohio State University.
2. The personal letters and phone calls were very effective recruitment activities used by the College of Agriculture.
3. High-ability non-traditional students were generally not from an urban area and had an agriculture/agribusiness background.
4. Family served as the primary source of information about the College of Agriculture and the Ohio State University for high-ability non-traditional students who enrolled in the College of Agriculture between 1984 and 1986.
5. The high school guidance counselor was the second ranked primary source of information about the College of Agriculture for high-ability non-traditional students who enrolled between 1984 and 1986.
6. Parents attend the Career Day and Agriculture day on campus activities with high-ability non-traditional students.
7. High-ability non-traditional students receive considerable personal correspondence in the form of personal letters from the College faculty and administration.

### Discussion

While the percentage of high-ability non-traditional students enrolled in the College of Agriculture has increased the percentage of high-ability traditional students has declined. Data indicated a decline from 11% in 1982 to 8% in 1986. Is this decline a reflection of increased graduation requirements and/or increased college entrance requirements forcing college bound students not to enroll in high school vocational agriculture in order to provide time for more traditional academic subjects? Have the recruitment efforts focused on increasing the number of high-ability non-traditional students at the expense of the high-ability traditional students?

The interview schedule was not constructed to collect data on college majors of high-ability non-traditional students. General information provided by high-ability non-traditional students during the interviews indicated that a number of these students are in the College of Agriculture to prepare for a career in veterinarian medicine. Are high-ability non-traditional students majoring in only a few select departments? This issue needs to be explored. If the majority of high-ability non-traditional students are selecting a specific major, the goals of the recruitment strategies are not being met.

Data indicated that personal visits by faculty and administration officials were not effective in encouraging students to enroll in the College and pursue an agricultural major. Eight high-ability non-traditional students indicated a faculty member visited their high school. Several students indicated the purpose of the visit was to present a Merit Scholarship at an awards assembly. At that point in a student's career a College decision would have been made. The students' rating of the effectiveness of faculty visits could reflect the timing of the visit and not the ineffectiveness of the concept of faculty visits to high schools.

Parents attend the Agriculture Day on Campus and the Agriculture and Natural Resources Career Day with the high-ability non-traditional students. Administration officials in the College of Agriculture should consider designing a portion of the activities with the parents in mind.

Students are apprehensive of the potential for an impersonal atmosphere at a large university. High-ability non-traditional students were impressed with the personal attention they received from the College.

The College of Agriculture has developed recruitment activities such as the Science Expo, "Part of the Change" videotape, *The Science Workbook*, and Career resources with the non-traditional audience as the primary target. Other activities were used that had both traditional and non-traditional students as their audience. Can a recruitment activity effectively serve the needs of both traditional and non-traditional students? Have the activities designed to recruit a non-traditional audience reached the non-traditional students? Does the College have a specific strategy to reach truly non-traditional high-ability students?

Are high-ability non-traditional students really non-traditional? Evidence from this study indicates that high-ability non-traditional students are more similar to the traditional group of students than they are different. Over seventy percent of the high-ability non-traditional students indicated a rural background, forty-six percent had parents who operated a farm and/or an agribusiness, and seventy-one percent had worked on a farm and/or an agribusiness. This information indicates a very traditional background for the non-traditional students. Therefore a number of pertinent questions must be asked. Were proper

definitions used to classify traditional and non-traditional students? Are the recruitment efforts really reaching the "real" non-traditional students? Further study needs to be undertaken to answer these questions.

The College of Agriculture needs to be more aware of the role of the guidance counselor in providing first information on the College of Agriculture. The College could develop activities to inform guidance counselors of the many opportunities available in agriculture.

### Recommendations

1. This study should be continued in a longitudinal fashion to determine if trends shown in the data remain constant over time.
2. The data produced as a result of this study should be used to evaluate current recruitment activities and revise the procedure to reach better the desired target audience.
3. Similar studies should be conducted at other institutions that have attempted to recruit high-ability non-traditional students.
4. Colleges have a limited budget for student recruitment activities. Steps must be taken to insure that money used for recruitment is efficiently spent. Colleges should use cost benefit analysis to evaluate current recruitment activities. Research should be conducted on the development of better and more cost effective recruitment activities to attract the non-traditional audience.

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## High School Vocational Agriculture and Success in College

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With tight money and fewer high school students available for recruitment, the College of Agricultural Sciences at Oregon State University wanted to know where to place their recruitment money. There was also great interest, on the part of agricultural educators in the state of Oregon, in knowing the potential for success in college (specifically a College of Agriculture) of students who had participated in vocational agriculture while attending high school but who had not participated in the college preparatory curriculum. It was felt that information of value to both concerns could be gathered in one study.

A previous study indicated that taking vocational agriculture in high school was one of six factors which significantly influenced post-secondary success as measured by completing the post-secondary program, Rudolph and Yoder (1987). Rudolph and Yoder did state, however, that the single most effective criterion for determining success in college was the student's post-secondary aspirations.

Warmbrod and Doerfert (1987) found that class rank and ACT scores may be better predictors of college success than the high school curriculum studied. It appeared from the literature that the type of high school curriculum studied and therefore college entrance requirements based on high school curriculum prerequisites may not be the best predictor of college success.

Several investigators have looked at such things as the GPA of students entering college and the continued learning patterns of high school students (Riesenberg 1987, Shelhamer and Letham 1987, Lawrence 1984). Many of these studies have indicated that students of high school vocational agriculture programs could be successful in college agriculture degree efforts. Enhanced recruitment by the College of Agricultural Sciences in high school vocational agriculture programs might be a valid recruitment activity. The focal concern of this study was the GPA of graduating college seniors. Both college and high school administrators and counselors indicated strongly that graduating GPA was the bottom line in determining student success. It was also felt that if students could not succeed academically as measured by GPA, then they should not be actively recruited by the College of Agricultural Sciences.

A final major factor in determining the direction of this study was that academic requirements are added to student schedules at the high school level under the

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