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AG HORIZONS

A Campus Visitation Program for Student Recruitment

Josef M. Broder, Jack E. Houston,
and F.W. Williams

Introduction

In the face of declining enrollments, many departments and colleges of agriculture are becoming increasingly concerned about their recruitment programs. This concern is best illustrated by recent contributions to the *Journal* on the subject of student recruitment. Recruitment programs in poultry/animal science departments have been assessed by Pescatore and Harter-Dennis (1987) and Litzenberg (1987). Programs to inform and recruit high school students have been examined by Betts and Newcomb (1986) and Reneau and Kabat (1986). Issues and challenges in recruiting have been addressed by Hildreth (1986) and Coulter (1985). Specific recruitment strategies have been developed to include students (Haque, 1986) and marketing research techniques (Schuster and Costantino, 1986). Related studies have examined factors associated with enrollments (Slocombe, 1986) and factors considered by students in selecting a college or university (Riesenberg, 1987). In general, these papers offer some revealing insights into recruitment programs which were once taken for granted. These papers also indicate a critical need for additional systematic research on alternative recruitment strategies.

This paper was written in response to a need to examine alternative recruitment strategies. This paper assesses recent efforts by the University of Georgia's College of Agriculture to recruit students through an annual campus visitation program entitled AG HORIZONS: A Career Institute. More specifically, the objectives of this paper are to 1) describe the AG HORIZONS program at the University of Georgia, 2) evaluate its effectiveness as a recruitment technique, and 3) offer suggestions for adoption, implementation, and further evaluation.

Broder is professor and Houston assistant professor of Agricultural Economics while Williams is associate director of Resident Instruction, College of Agriculture, University of Georgia, Athens, GA 30602.

Ag Horizons

AG HORIZONS is an annual campus visitation program for high school students. Initiated in 1984, the program has brought selected high school students to the University of Georgia for a three-day visit of programs and facilities. The goals of the program are to recruit high school students of high academic quality and to provide a better understanding of and a greater appreciation for agriculture. The AG HORIZONS program was modeled after a similar program at other colleges and universities.

At its inception AG HORIZONS has been jointly sponsored by the Georgia Farm Bureau Federation and coordinated by the University of Georgia, College of Agriculture. In 1987, the Georgia Agricultural Alumni Association shared with Farm Bureau, financial support for the program. Participants in the program are solicited through county Farm Bureau offices, vocational agriculture teachers, county extension agents, and high school science teachers.

The College of Agriculture arranges the speakers, tours, and other on-campus activities for the three-day program. The program is developed jointly by the educational program specialist in the Director's Office and the College's Standing Committee on Recruitment. Faculty from various departments are invited to participate in the program. Undergraduate and graduate students serve as live-in counselors for the student participants. An outline for the 1987 AG HORIZONS program is shown in the appendix.

Student Characteristics

General characteristics of students attending AG HORIZONS for the years 1985-1987 are shown in Table 1. These data were obtained from a pre-conference questionnaire administered during registration. When all groups were considered, the average age of students was 16.5 years. Approximately 43 percent of the participants were female and 67 percent were from farm backgrounds. The percentage from farm backgrounds declined throughout the period, while the percentage from non-farm backgrounds increased. Approximately 45 percent were members of 4-H clubs, while 54 percent were members of the FFA. Nearly half

Table 1. General Characteristics of Students Attending AG HORIZONS, 1985-1987.

Characteristic	1985	1986	1987	All
No. of Observations	25.0	26.0	34.0	85.0
Average Age (years)	16.4	16.5	16.6	16.5
Percent Female	36.0	46.1	47.1	43.5
Background:				
% Farm	80.0	76.9	50.0	67.1
% Rural-nonfarm	12.0	15.4	26.5	18.8
% Suburban	8.0	3.8	17.6	10.6
% Urban	0.0	3.8	5.9	3.5
Activities:				
% 4-H Club	40.0	61.5	35.2	44.7
% FFA	48.0	58.3	55.9	54.2
% Sports	24.0	36.0	32.4	31.0
% Other clubs	44.0	34.6	67.6	50.5
% Part-time job	40.0	56.0	50.0	48.8
Most Interesting Subjects in School:				
% Math	24.0	12.5	26.5	21.7
% Sciences	12.0	20.9	32.3	22.9
% Agriculture	24.0	25.0	17.6	21.7
% English	12.0	16.7	11.8	13.3
% History	4.0	12.5	5.9	7.6
% Computers	4.0	0.0	0.0	1.2
% Others	8.0	13.0	5.9	11.6
Hours of study per week	7.8	6.9	8.2	7.7

had part time jobs. On average, students participating in the program studied 7.7 hours per week. Subjects found to be the most interesting to these students were the sciences, agriculture, and mathematics.

Family characteristics of students attending AG HORIZONS are shown in Table 2. The percentage of students with fathers in farming declined during the period. Approximately 32 percent of the participants' fathers were in farming, 20 percent in small business, 12 percent in education, and 36 percent in other occupations. Approximately 38 percent of the students' mothers were housewives in households with an average of 1.5 boys and 1.2 girls.

College experiences of family members were thought to influence the college plans of students attending AG HORIZONS. Data on colleges attended by family members are shown in Table 3. Approximately

Table 2. Family Characteristics of Students Attending AG HORIZONS, 1985-1987

Characteristics	1985	1986	1987	All
Father's Occupation:				
% Farming	48.0	46.2	14.7	31.8
% Small business	16.0	26.9	17.6	20.0
% Education	4.0	11.5	17.6	11.8
% Other	32.0	15.4	50.1	36.4
Mother's Occupation:				
% Housewife	40.0	38.5	35.3	37.6
% Secretary	28.0	15.4	17.6	16.5
% Teacher	16.0	15.4	17.6	16.5
% Nurse	4.0	11.5	5.9	7.1
% Other	12.0	19.2	26.5	23.3
Children in Family:				
No. of boys	1.8	1.4	1.4	1.5
No. of girls	1.1	1.3	1.2	1.2
Older Children in Family:				
No. of brothers	0.6	0.4	0.5	0.5
No. of sisters	0.4	0.5	0.5	0.5

17 percent of the students' fathers had attended the University of Georgia, as had 6 to 8 percent of their mothers, brothers, and sisters. Less than 5 percent of the students' family members had attended Abraham Baldwin Agricultural College (ABAC), the only two-year, state-supported agricultural school in the State. The impacts of the students' personal and family backgrounds on their plans to enroll in the College of Agriculture are examined in the next section.

Table 3. College-Related Family Characteristics of Students Attending AG HORIZONS, 1985-1987.

Characteristic	1985	1986	1987	All
Father's College:				
% None	56.0	57.7	44.1	51.8
% Univ. of Georgia	16.0	11.5	20.6	16.5
% ABAC ¹	8.0	7.7	0.0	4.7
% Out-of-state	4.0	7.7	11.8	8.2
% All others	16.0	15.4	23.5	18.8
Mother's College:				
% None	32.0	50.0	47.1	43.5
% Univ. of Georgia	8.0	7.7	8.8	8.2
% ABAC ¹	0.0	0.0	5.9	2.4
% Out-of-state	4.0	3.8	0.0	2.4
% All others	56.0	38.5	38.2	43.5
Brother's College:				
% None	76.0	84.6	76.5	78.8
% Univ. of Georgia	16.0	0.0	5.9	7.1
% ABAC ¹	0.0	0.0	5.9	2.4
% Out-of-state	4.0	3.8	0.0	2.4
% All others	4.0	11.6	11.7	9.3
Sister's College:				
% None	72.0	73.1	73.5	72.9
% Univ. of Georgia	0.0	7.7	8.8	5.9
% ABAC ¹	0.0	0.0	0.0	0.0
% Out-of-state	0.0	0.0	5.9	2.4
% All others	28.0	19.2	11.8	18.8

¹Abraham Baldwin Agricultural College, Tifton, Georgia

Program Evaluation

At the end of each AG HORIZONS program, students were asked to complete a post-conference questionnaire. A Likert scale was used to measure the students' college plans before and after the conference (Gay, 1980). Specifically, students were asked to agree or disagree with statements about their college plans. Changes in student plans that occurred during the conference were analyzed by paired Student t tests to determine the statistical significance of these changes. The results of the analysis, shown in Table 4, indicate average gains in: 1) student plans to attend college, 2) student plans to attend the University as a freshman, and 3) student plans to enroll in the College of Agriculture.

Shown in Table 5 are mean evaluations of the program using a Likert scale. These data suggest that students strongly agreed that AG HORIZONS was enjoyable and educational, that the program had changed their impressions of the University and College, and that the program would be recommended to a friend or relative. Students also felt that the program had influenced their college plans.

Table 4. Comparisons of College Plans Before and After Attending AG HORIZONS, 1985-1987

Statement	Mean Evaluations ¹			t-score ²
	Before	After	Change	
1. You plan to attend college	9.54	9.71	0.17	2.62***
2. You plan to attend college in the State of Georgia	9.07	9.24	0.17	1.31
3. You plan to attend UGA as a freshman	6.12	6.47	0.35	1.71*
4. You plan to attend UGA after attending a smaller college	6.68	6.34	-0.52	-1.46
5. You plan to enroll in UGA's College of Agriculture	7.20	7.92	0.72	3.43***

¹where 10 = strongly agree and 1 = strongly disagree.

²change statistically different at the following levels of significance:

*** = 0.01; ** = 0.05; * = 0.10.

Data on student backgrounds were combined with student evaluations of AG HORIZONS to identify student profiles particularly receptive to the program. A changes in student plans to enroll in the College of Agriculture, reported in table 4, was defined as the dependent variable in a multiple regression analysis. Factors associated with these changes in student plans are shown in table 6 along with mean values, coefficients (B values) and standard errors of estimate.

Results indicate that the influence of AG HORIZONS on student plans to enroll in the College of Agriculture was positively associated with 1) students age, 2) a family member attending the University, 3) FFA membership, 4) finding AG HORIZONS to be a learning experience, and 5) receiving a favorable impression of the College. AG HORIZONS' impact on student plans to enroll in the College was adversely affected by 4-H membership and by having a father in agriculture. Reasons for these adverse results may be associated with program design and emphasis. The AG HORIZONS program is designed for students with non-farm backgrounds and/or non-agricultural experiences

Table 5. Assessment of AG HORIZONS by Students Attending AG HORIZONS, 1985-1987

Question	1985	1986	1987	All
	-----Mean Evaluation-----			
You found AG HORIZONS to be enjoyable	9.6	9.8	9.6	9.6
You found AG HORIZONS to be a learning experience	9.8	9.9	9.6	9.8
Your impressions of UGA have changed after attending AG HORIZONS	9.7	9.7	9.7	9.7
Your impressions of the College of Ag have changed after attending AG HORIZONS	9.5	9.8	9.6	9.7
AG HORIZONS has had no effect on your college plans	2.6	3.0	3.4	3.1
You would recommend AG HORIZONS to a friend or relative	9.6	9.6	9.6	9.6

¹where 10 = strongly agree and 1 = strongly disagree.

and thus may have been less informative and/or less convincing to those with such experience. Given that the AG HORIZON program affects student attitudes differently, program planners should consider such differences in tailoring future programs.

Table 6. Factors Associated With Changes in Student Plans to Enroll in the College of Agriculture, 1985-1987 (multiple regression).

Variable Name	Variable Description	Mean	Coefficient ¹
Dependent	Pre - Post response to statement "You plan to enroll in UGA's College of Agriculture"	0.72	
Independent AGE	Student's age	16.48	0.353 (0.278)
RCUGA	Binary = 1 if family member attended UGA; 0 if otherwise	0.28	0.435 (0.463)
4H4H4H	Binary = 1 if student is member of 4-H club; 0 if otherwise	0.48	-0.940** (0.448)
FFA	Binary = 1 if student is member of FFA; 0 if otherwise	0.54	0.442 (0.450)
FARM	Binary = 1 if student's father works in agriculture; 0 if otherwise	0.42	-0.921*** (0.445)
LEARN	Response to statement "You found AG HORIZONS to be a learning experience"	9.78	1.004*** (0.434)
CHANGE	Response to statement "Your impression of the College has changed after attending AG HORIZONS"	9.65	0.254 (0.340)

¹standard error shown in parentheses

**Significant at the alpha = 0.05 level

***Significant at the alpha = 0.01 level

R² = 0.265; Number of observations = 73

Interest in Majors

During the AG HORIZONS program, students visited with faculty and/or students from various departments in the College of Agriculture (see appendix). Departmental visits were used to help students learn more about the diversity of subjects in the college and to select a preliminary major. Students were asked to rank their interest in majors on the post-conference questionnaire. Participants ranked pre-veterinary medicine first, followed by animal/dairy science, agricultural engineering, agricultural economics, and agronomy. With the exception of pre-veterinary medicine, student preferences for majors were generally consistent with spring quarter, 1987 enrollments.

Conclusions

This paper has described and assessed a campus visitation program at the University of Georgia's College of Agriculture. The program entitled AG HORIZONS was designed to recruit high school students and provide a better understanding of and appreciation for agriculture. This paper found that students attending the conference were favorably impressed with the experience, the College, and the University. Students also felt that the conference had a positive impact on their college plans.

Although the AG HORIZONS has had some beneficial impacts on the recruitment process, some questions remain concerning its effectiveness. First, has the program had a positive effect on actual enrollments? Preliminary data indicate that 52 percent of the 1985 participants have subsequently enrolled in the College. No data are yet available for the 1986 and 1987 participants.

Participants in the AG HORIZONS program were predominantly high school juniors and seniors, while College enrollments are predominantly college juniors and seniors. Should AG HORIZONS participants attend a junior college prior to enrolling in the College, at least four years may lapse before data would truly reflect the program's effectiveness as a recruitment strategy. Follow-up studies would also have to determine how many participants who later enrolled in the College would not have done so otherwise.

Second, for a given expenditure, how do the costs and benefits of campus visitation programs compare to other recruitment techniques? Third, which student groups should be targeted in such campus visitation programs and how can programs be designed for maximum effectiveness? Despite these and other questions, the program has been well received by prospective students, their parents, and their counselors. Its continued growth and widening sponsorship in the agribusiness sector may be the strongest indicators of the program's influence to date.

1987 AG HORIZONS PROGRAM



A Career Institute

WEDNESDAY, August 5, 1987

- 6:00 - 7:00 PM Hill Hall Dorm, UGA Campus
Registration
- 7:00 - 8:00 Introductions and Orientation
212 Conner Hall
Presiding: Mr. Billy Patterson
Field Representative At Large
Georgia Farm Bureau
- Official Welcome: Dr. William P. Flatt
Dean & Coordinator
UGA College of Agriculture
- 8:00 - 11:00 Driving Tour of the UGA Campus and
Athens
Tate Student Center
Bowling at Beechwood Lanes
Fast Food Survival Fare (At Your Expense)

THURSDAY, August 6, 1987

- 8:00 AM Breakfast at Snelling Hall
- 9:00 - 9:05 Opening Session
212 Conner Hall
Presiding: Dr. Forrest W. Nutter
Chairman
Ag Horizons
- 9:05 - 9:25 "The Role of Education in Agriculture"
Dr. Chris J. B. Smit
Associate Dean and Director
Resident Instruction
UGA College of Agriculture
- 9:25 - 10:15 "Agricultural Careers: The Root of Our
Economy"
Janet Rodekohr
News Editor
UGA Cooperative Extension Service

- 10:15 - 10:25 Refreshment Break
- 10:25 - 10:45 "The Importance of Agriculture in
Georgia"
Mr. Robert L. Nash
President
Georgia Farm Bureau
- 10:45 - 11:30 Tour of the Veterinary School
- 11:30 - 12:45 Lunch at Snelling Hall
- 12:45 - 5:00 Assemble in 212 Conner Hall for
Laboratory Visits on South Campus
Areas to visit will include:
1. Agricultural Economics
2. Agricultural Engineering
3. Creamery (with an ice cream break)
4. Entomology
5. Food Science
6. Horticulture
7. Plant Pathology
- 5:00 - 6:30 Free Time at Dorm
- 6:30 - 10:30 Georgia Square Mall
Dinner and Movie (At Your Expense)

FRIDAY, August 7, 1987

- 8:00 AM Breakfast at Snelling Hall
- 9:00 - 9:10 212 Conner Hall
Presiding: Dr. Wen Williams
Associate Director
Resident Instruction
UGA College of Agriculture
- 9:10 - 12:30 Tour of Teaching and Research Facilities
1. Animal Facilities
2. Greenhouses
3. Riverbend Laboratories
4. Rhizotron
- 12:30 - 2:30 Lunch at College Square
(At Your Expense)
A Visit to the UGA Bookstore
- 2:30 - 3:00 Tour of Heritage Hall
Butts-Mehr Building
- 3:00 - 3:05 212 Conner Hall
Presiding: Dr. Chris Smit
- 3:05 - 3:45 UGA Student Information Workshop
1. Admissions
2. Financial Aid, Scholarships
3. Core Curriculum, Majors
4. Student Organizations
- 3:45 - 4:00 Refreshment Break
- 4:00 - 4:15 Film
- 4:15 - 5:00 Panel Discussion
"Opportunities for College of
Agriculture Graduates"
Moderator: Dr. Wen Williams
- 5:30 - 7:00 Swimming at Lake Herrick

SATURDAY, August 8, 1987

- 9:00 AM Breakfast
(At Your Expense)
- 10:00 - 11:00 Assemble at Dorm for Tour of
Botanical Gardens
(Parents Invited)
- 12:00 - 1:30 Luncheon at the Georgia Center
(Parents Invited)
Presiding: Dr. Chris Smit

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Staff Survey

Exercise as an Individual Practice, Scope, and Need in an Academic Environment

David A. Harmon and
Jacqueline J. Storby

Background

Many health experts support the hypothesis that chronic negative lifestyles are the leading cause of illness today. Industries' acute awareness of this predicament has caused them to seek strategies to help preserve their most important asset, the employee (Baun & Baun, 1984). This is sound business practice. Poor health of American employees is costly. In 1977, American business and industry lost an estimated \$25 billion in premature deaths and \$3 billion in illness of employees. Heart attacks alone caused a loss of 132 million workdays. It costs a company \$500,000 to replace a key executive of age 50 earning \$100,000 per year. The average firm faces an annual increase of 12 to 14% in health care costs. Poor fitness, identified as the culprit, has raised costs which in turn have decreased industrial profits. Insurance represents the single largest growing cost factor in corporations (Maryk, 1982).

Other areas of poor health besides heart attacks are also taking a toll in costs. Workmen's compensation for low back pain costs employers approximately \$250 million annually. A Pacific Mutual Life study estimated an annual \$30 million cost due to poor nutrition. Alcoholic employees experience twice the rate of absenteeism compared to other employees. According to the National Interagency Council on Smoking and Health, the average one-pack-per-day smoker may cost his/her employer more than \$600 per year in otherwise avoidable costs (Teague & Mobily, 1982).

Harmon is an assistant professor of Business and Storby is an assistant professor of Physical Education at the University of Minnesota Technical College, Waseca, MN.

In fact, the desk and swivel chair have proven to be the most serious health hazards for many office workers. This sedentary working condition produces unpleasant and even serious effects, such as weight problems, back ailments, cardiovascular disorders, high blood pressure, and even premature aging. Absenteeism, loss in productivity, reduced morale, and increased workers compensation are only a few of the resulting costs related to poor health (Villeneuve, Weeks & Schwied, 1983).

In the literature, most material concentrated on the corporate level response in regard to fitness for their employees, the programs which were set up, the facilities which were developed, and the evidence that our highly technological society provides for less and less physical activity and exercise. We did not find any literature that dealt with an equally sedentary group, the staff of colleges and universities and their needs and practices for exercise outside of the work environment.

A Survey

An educational institution should be concerned about the health and welfare of its staff. These people must be at their best to motivate students each day. Because of this concern, we at the University of Minnesota Technical College, Waseca, Minnesota surveyed the administration, faculty, and civil service support staff as to their practices in regard to exercise to find out what types of exercise programs have been implemented by employees where there has been no university policy for a wellness program. No part-time employees were surveyed.

A 20 item questionnaire was developed to investigate the scope of time committed to exercise; the form or type of exercise performed; the facilities and equipment available; the effect on reduced stress of job demands; and the possibility of reduced medical costs. Each survey question was answered by circling