Young Hispanics' Views of Agriculture Create Barriers in Recruiting

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Abstract

Increasing the number and diversity of students is a common theme among American colleges of agriculture. This study explores factors which must be considered by colleges attempting to reach the nation's Hispanics community -- specifically barriers to higher education, perceptions of agriculture and degree of acculturation. Differences in Hispanics and non-Hispanics are presented. Implications for university, community college and high school officials are discussed.

Introduction

Hispanics are the fastest growing, yet least educated subgroup of the American population today. In many central Washington schools, enrollments are reported at more than 60% Hispanic. Nationally, only 10% of Hispanic high school graduates attend college, compared to 21% of non-Hispanics.

Enrollment is a major concern for colleges of agriculture across the country, where numbers of baccalaureate graduates have sharply declined since their peaks in the late 1970's. During this era of declining enrollments, the job market for agriculture college graduates has improved. A 10-15% shortage of professionals is predicted in many sectors of the industry.

Hispanic students make up an even smaller share of agriculture enrollments than they do in most other collegiate programs. Seemingly, Hispanics' considerable experience in agriculture has served not as a motivator for them to pursue this major in college, but rather to intensify the already negative perceptions held by the general public.

Conceptual Framework

A review of the literature identified a number of factors which result in Hispanics being underrepresented in higher education. Among the most severe barriers are those relating to finances, mobility, academic preparation, culture and family, and a lack of encouragement and support (Hickey & Solis, 1990; Orum & Navarette, 1991; Romo, 1984). Level of acculturation was also identified as being linked to perceived barriers to education (Wirsching, 1992).

Research has shown that most high school students perceive agriculture as simply farming; equating it with hard, physical, seasonal labor offering few economic rewards (Orthel et al, 1986; Hoover & Houser, 1991). Few studies were found on Hispanic youth in agriculture. One project comparing inner-city students found no difference in perceptions between white and minority youth (White, Stewart & Linhardt, 1991). Other authors contended that experience as poorly paid farm laborers have led to a desire amongst most college-bound minorities to seek "something more" than agriculture (Bowen, 1987; Larke & Barr, 1987; Trotter, 1988).

Purpose/Objectives

There is not a clear understanding of why Hispanics are underrepresented in college agriculture programs. This was addressed by testing the following hypotheses.

Hypothesis 1: There is no significant difference in barriers to participation in higher education between Hispanics and non-Hispanics.

Hypothesis 2: There is no significant difference in perceptions of agriculture between Hispanics and non-Hispanics.

Hypothesis 3: There is no significant difference in barriers to higher education based upon respondents' acculturation.

Hypothesis 4: There is no significant difference in perceptions of agriculture based upon respondents' acculturation.

Methodology

The target population consisted of Hispanic and non-Hispanic high school agriculture students in central Washington. A purposeful sampling technique was used. Seven schools were selected in communities with especially high concentrations of Hispanics. From these schools, 176 students constituted the sample. Vocational agriculture teachers at each of the schools guided the researcher in identifying classes that reflected a balance of grade, gender, and ethnicity. The instrument was administered to all students in selected classes. The sample was composed of 45.1% Hispanics and 54.9% non-Hispanics.

A researcher-designed questionnaire was used to gather data. The portions of the questionnaire reported in this study consisted of three sections: barriers to higher education, perceptions of agriculture, and degree of acculturation. After data were collected, a Cronbach's alpha test was run to assess internal consistency of items measured in the scales. Relatively high alpha reliability coefficients of .83 and .82 resulted for the barriers and perceptions scales, respectively. The third measure, degree of acculturation was a modification of an existing instrument called the Acculturа-

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tion Rating Scale for Mexican-Americans (ARSMA). The modified scale included eight questions concerning place of birth, language use and familiarity, reading and writing, and ethnic identity.

For hypotheses one and two, subjects were divided into Hispanic and non-Hispanic subgroups and total barriers and perceptions scores were computed by summing the individual items in each of the scales. Groups were compared using frequencies, means and t-tests. Separate t-tests were then run comparing Hispanics and non- Hispanics on each individual barrier and perception item. Hypotheses 3 and 4 utilized multiple analyses of variance to test barrier and perception scale totals against individual acculturation items.

Findings

Hypothesis 1

The mean total barrier score for Hispanics was 101.494 (SD = 13.912) in contrast to a higher mean score (reflecting fewer barriers) of 105.604 (SD = 13.290) for non- Hispanics. A t-test found these scores to be significantly different at the .05 level. This analysis measured a summated barriers score and indicates that the cumulative barriers to higher education are perceived as significantly greater by Hispanics.

A separate t-test was run on each of the 30 barrier items in the scale. For six of the items, there were significant differences between Hispanics and non-Hispanics. In each of these cases, the item represented more of a barrier to Hispanics than non- Hispanics. Four of the items were significant at the .05 level. These included: concern about transportation to and from college, guilt about leaving family to attend college, fear of losing culture, and fear of not fitting in at college. Two items were found to be significant at the .001 level. They were: fear of parents' reaction to desire to attend college, and the need to make money to help support the family financially. Four of the six significant different barriers related to family and culture. The other significant items measured financial and personal barriers. The remaining 24 barriers did not reflect significant differences between Hispanics and non-Hispanics.

Hypothesis 2

Hispanics' mean score for agriculture perceptions was 75.089 (SD = 9.827) compared to a higher mean score (reflecting more positive perceptions) for non- Hispanics of 79.337 (SD = 9.827). A t-test found these scores to be significantly different at the .05 level. This finding indicates that Hispanics held a more negative perception of agriculture than do non-Hispanics.

A separate t-test was run on each of the 23 agriculture perception items in the scale. For seven of the items, there were significant differences between Hispanics and non-Hispanics. In each of these cases, non-Hispanics had a more positive perception of agriculture than did Hispanics. Six of the items were found significant at the .05 level. These items were: "agriculture is mainly farming," "the highest you can go in agriculture is owning your own farm," "there are many careers in agriculture which require a college degree," "agriculture is mainly manual labor," "agriculturally-related jobs are low paying," and "many careers in agriculture require a strong science background". One item, "agriculture requires mainly unskilled workers," was found significant at the .001 level.

Hispanics' negative perceptions of agriculture appear to be rooted in their personal or family experiences of field work. Four of the items directly related to agriculture as farming, manual labor, low-paying, or unskilled work. Similarly, Hispanics did not perceive agriculture to offer a range of careers or to require a strong science background. The three lowest mean scores, reflecting the most negative perceptions, referred to employment in agriculture as seasonal, unsanitary, and often unsafe because of chemicals. These reflect a narrow, limited knowledge of agriculture.

Hypotheses 3 & 4

Eight acculturation factors were investigated. These included: place of birth, parents' place of birth, grandparents' place of birth, language used in home, language literacy skills, music preference, and a self-acculturation rating. Of these eight acculturation factors, five were found significantly linked to barriers to higher education. These included place of birth, parents' place of birth, preferred language, preferred music, and a self acculturation rating. In each case, the more acculturated responses correlated with fewer perceived barriers to higher education. Only two of the eight acculturation factors were found significant when exploring respondents' perceptions of agriculture, language spoken in home and the self acculturation rating.

Conclusions

This study found several differences between Hispanic and non-Hispanic high- school students. First, Hispanic students perceive more overall barriers to participation in higher education. They differ particularly on barriers relating to family and cultural factors, followed by financial factors. Second, Hispanics tended to have more negative perceptions of agriculture. Specifically, they were more likely to view agriculture as only farming, low-paying, manual labor, low technology, poor working conditions and limited career potential. Third, degree of acculturation does influence Hispanic high school students' perceived barriers to higher education and perceptions of agriculture. Specifically, more acculturated students will experience fewer barriers to higher education and have more positive perceptions of agriculture.

Recommendations

Colleges of agriculture hoping to increase Hispanic enrollment must be aware of the barriers perceived and encountered by Hispanic students. Serving this population goes beyond simply providing financial assistance. While scholarships and financial aid are important, this study found other barriers--particularly those relating to culture and family--to be significant. Early outreach, educational partnerships, parent education, and programs which are designed to work within the context of Hispanic family structure appear to all be important factors in the equation for success. Recruitment efforts will need to take into ac-

count Hispanics' degree of acculturation, and cultural factors such as feelings of guilt about leaving the family.

Providing intensive educational experiences which take into account Hispanics' experienced-based, intensified, negative agriculture impressions should help open Hispanic students' eyes to the new opportunities to be found in today's agriculture. More faculty role models can be powerful motivators and could make Hispanic students feel like they fit in at the college of agriculture.

High school agriculture programs should examine their curriculums and FFA activities looking for innovative ways to attract and retain more Hispanic students. An agricultural career module, at-school "home" projects, and new contests such as sales, computers and agriscience are among the possibilities. Hispanics should be well- represented on vocational advisory committees. Here, they can help design relevant courses and activities and once again, serve as role models to Hispanic youth. Agriculture teachers and counselors should work together so that agriculture courses can fit into college preparatory tracks. In joining with four year institutions and community colleges, they can provide this growing, important sector of the population with enhanced educational and career opportunities through college agriculture programs.

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Developing Oral Communication Skills in Animal Science Classes

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To enhance the development of oral communication skills in undergraduates at the University of Connecticut, five courses within the Animal Science Department require oral presentations of each student enrolled in these classes. Since three of these courses are required for a degree in Animal Science, a de facto requirement for oral communication has been established within the major. By including requirements for oral presentations in five different courses, the utilization of class contact hours for these presentations in no one class is burdensome.

Introduction

A primary objective of undergraduate educators should be to produce graduates with communication skills sufficient for success in the workplace. Surveys of employers in agribusiness, (for example see Harris, 1989) and presentations by leaders in agriculture and personnel officers all reiterate that students must develop good communication skills to improve their chances for employment and success. Similarly, these skills are important criteria for success in postgraduate education, whether in professional or graduate programs. The need for improvement of communication skills in general, and more specifically writing skills in undergraduate education, has received substantial attention (Katz, 1982; Smit, 1991). In partial recognition of this fact, the University of Connecticut has made a major commitment to develop the writing skills of undergraduates. In 1988, the University of Connecticut established General Education Requirements (GER) for all students regardless of major. A portion of the GER requires that students enroll in a minimum number of courses which emphasize skills in writing. Any course may carry a writing or "W" skill code designation as long as it follows the guidelines established by the University Senate and receives approval from that same body. For example, two courses which are taught in the department of Animal Science carry a "W" skill code (e.g., Animal Food Products, and Dairy Herd Management). The writing assignment may be supplementary to course material, or be integrated within the subject matter. As a minimum, a "W" course must require 15 typed, double-spaced pages, which are evaluated on several occasions often in the form of successive drafts. This has proven

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