

# Perceptions Of Agriculture And Barriers To Higher Education Among Hispanic And Non-Hispanic High School Students In South Florida

Rebecca Bechtold<sup>1</sup> and Tracy S. Hoover<sup>2</sup>

Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611-0540

## Abstract

A survey of 137 students enrolled in high school agricultural education programs in South Florida indicates that Hispanic students have greater barriers to higher education and more negative perceptions about agriculture than their non-Hispanic counterparts. Hispanic students believed that they encountered, or will encounter, more barriers when applying for admission to college. These students also tend to have a more negative perception of agriculture and are less likely to pursue a career in an agriculturally-related field.

## Introduction

Hispanic Americans are the fastest growing minority group in the U.S. (Curran and Renzetti, 1993). From 1980 to 1990, the Hispanic population increased 53%, which constituted 9% of the total U.S. population (Fitzpatrick, 1992). This represents a growth rate of five times the rate of the rest of the U.S. population (Nichols, 1993). With a median age of 23, Hispanics constitute a very young population. Their youth and continued immigration will result in a high rate of population increase in the years to come (Fitzpatrick, 1992; Hickey and Solis, 1990). It is estimated that, by the year 2020, Hispanics will displace African-Americans as the largest racial minority in the U.S. (Curran and Renzetti, 1993). As one of the fastest growing minorities in the U.S., Hispanics will have an increasing influence on our nation.

At the end of the 1980s, the enrollment of Hispanics in college was 28.7%, compared to a 38.8% enrollment of whites. There is even a greater discrepancy between post-secondary graduation rates of Hispanic and white college students. Only one out of ten Hispanics received a baccalaureate or associate degree compared to one out of five non-Hispanic college students (Nichols, 1993). As a result, only 2.9% of bachelor's degrees awarded among U.S. colleges and universities were earned by Hispanic students (American Council on Higher Education, 1991). Lack of financial resources, inadequate academic preparation, lack of support or encouragement, parental understanding of

education, and cultural factors can contribute to lack of enrollment in college (Nichols, 1993).

While Hispanic enrollment in institutions of higher learning is low, their enrollment within colleges of agriculture is even lower (FAEIS, 1993; Nichols, 1993). Perceptions among Hispanic high school students regarding agriculture are generally negative. Many Hispanic students feel that agriculture is a low-paying, unskilled profession that is associated with manual labor and has little room for advancement (Nichols, 1993). The number of bachelor's degrees awarded by colleges of agriculture has declined by almost 50% since the 1970's (Litzenberg et al., 1991). Low college attendance rates and negative perceptions of agriculture, the number of Hispanics enrolling in agricultural programs at the college level is very small (Nichols, 1993). However, there are a great many opportunities for students graduating from higher education agricultural programs. There is a shortage of trained professionals to fill scientific and business related aspects of the agricultural industry (Coulter et al., 1990).

## Purpose and Objectives

The purpose of the study was to explore the differences among Hispanic and non-Hispanic high school students with regard to their perceived barriers to enrollment in college and their perceptions of agriculture. The specific objectives of this study were to: 1. Determine if Hispanic high school students perceive different barriers to higher education from their non-Hispanic peers; 2. Determine if Hispanic students' perceptions of agricultural careers differ from those of non-Hispanic students.

## Procedures

One hundred thirty-seven high school students completed a survey designed to measure their perceptions of agriculture and barriers to higher education. Fifty-nine Hispanic students (47.2%) and 66 non-Hispanic students (52.8%) completed the survey. A four-part questionnaire designed by Nichols (1993) was used to collect data. The

<sup>1</sup> Science Teacher at Newberry Middle School, Newberry, FL.

<sup>2</sup> Professor

first section, barriers to higher education, consisted of 29 statements and the second section, perceptions of agriculture, consisted of 23 statements. Each statement was ranked by a 5-point Likert scale (1=strongly disagree to 5=strongly agree). Negatively worded questions were recoded prior to data analysis. The scores ranged from 1 to 5, with a lower mean representing a greater perceived barrier or a more negative perception of agriculture and a higher mean representing a lesser perceived barrier or a more positive perception of agriculture. Third and fourth sections included questions regarding ethnic affiliation, cultural factors, personal and family information.

The instrument was reviewed for content and face validity by a panel of experts consisting of faculty and graduate students from the University of Florida's Department of Agricultural Education and Communication and a Hispanic faculty member. The modified instrument was field tested for reliability on a population of secondary high school students representative of the target population. Cronbach's alpha levels of .75 and .71 were obtained for the perceptions of agriculture section and the barriers to higher education section, respectively.

## Results

Thirteen of the 29 statements that measured barriers to higher education presented differences greater than 0.25 between the Hispanic and non-Hispanic mean scores. These barriers were directly related to finances, inadequate preparation, culture or family, and lack of encouragement and support (Table 1).

Hispanic students felt they had less of an understanding of how to apply for scholarships or financial aid. This could represent a financial barrier in the sense that extra money in the form of scholarships or federal financial aid may make the difference in a family's decision to send a child to college. This lack of knowledge could be a determining factor in a Hispanic student's ability to attend college.

Perceived inadequate preparation for college was also evident in the way the Hispanic students responded to the "barrier" items. Hispanic students felt they knew less about the careers available through higher education and were less confident in their English reading and writing skills. This lack of English fluency can be a major obstacle and may adversely affect a student's performance in the classroom or on standardized college admission exams.

Hispanics were also less confident in their ability to graduate from high school, which has a tremendous impact on post-secondary education. Poor grades, lack of attendance, or just a basic lack of interest can cause a student to not graduate. Additionally, Hispanic students felt they did not possess an understanding of how to apply for admission to college. This is consistent with Romo's (1984) finding that many Hispanic students did not have a clear understanding of the steps to take when applying to college. Also, Hispanic students were less likely to agree that they were taking the best classes for college admission. Hispanic students are often "tracked" into vocational programs and are steered away from more academic classes that are needed for admission to colleges and universities (Orum and Navarette, 1991).

Hispanic students were more likely to want to attend a college that was close to their home. The family unit is very important within the Hispanic culture. Some students may feel a sense of guilt, regret, and even fear about leaving home. Furthermore, the Hispanic students were less likely to feel that they would "fit in" at college. Hispanics are likely to have a very limited number of role models and peers to help support them or who would make them feel more at home on a large university campus (Hickey and Solis, 1990; Orum and Navarette, 1991).

Hispanic students also were less likely to feel that their parents would support their decision to attend college. Hispanic females are especially vulnerable to the pressure of family responsibilities (VonDestinon, 1989). Higher education has not been traditionally as valued among Hispanics as among non-Hispanics which can be attributed to the low educational level of Hispanic parents who may not see the need for a college education (Valdivieso, 1985).

Hispanic students also felt that they had less encouragement from teachers to attend college. Whent (1994) suggests many teachers may have biases toward Hispanics which may cause them to set lower standards and expectations for those students. Zarate (1983) found that there was a difference in the way teachers treated their white and Hispanic students, with Hispanic students generally receiving less praise and acceptance and being asked fewer questions during class. This is due to educator's erroneous assumptions that Hispanic students lack motivation, ambition and intelligence (Zarate, 1983). This could have a detrimental effect on the confidence of these Hispanic students as they begin to consider a post-secondary education.

### Perceptions of Agriculture

When comparing Hispanic and non-Hispanic students' perceptions of agriculture, Hispanic students were

Table 1. Greatest differences in perceived barriers to higher education of Hispanic and non-Hispanic high School students (N=125).

Statement	Hispanic (N=59) Mean	Non-Hispanic (N=66) Mean	Diff. in means
<b>FINANCIAL</b>			
I don't understand how to apply for scholarships or financial aid	2.44 <sup>a</sup>	3.00	-0.58
<b>INADEQUATE PREPARATION</b>			
My English reading and writing skills are good	3.40	3.94	-0.54
I do not think I will graduate from high school	4.14	4.53	-0.39
I understand how to apply for admission to college	2.84	3.22	-0.38
I know about the career opportunities college can prepare me for	3.66	4.03	-0.37
I am taking the right classes for college	3.25	3.50	-0.25
<b>CULTURE/FAMILY</b>			
If I decide to attend college, my family will support me	3.58	4.32	-0.74
I want to attend a college which is close to my home	2.58	3.18	-0.60
I am afraid that I won't fit in at college	3.41	3.86	-0.45
It's hard for me to imagine attending college for four or more years	2.92	3.23	-0.31
<b>LACK OF ENCOURAGEMENT/SUPPORT</b>			
A high school teacher has encouraged me to attend college	2.69	3.27	-0.58
I am confident that I will be successful in college	3.64	3.92	-0.28
No one expects me to attend college	3.75	4.00	-0.25

<sup>a</sup> 1=strongly disagree to 5=strongly agree

more likely to feel that agriculture-related jobs were low paying, required unskilled workers, entailed manual labor and provided an unstable source of income (Table 2). Hispanic students were more likely to agree that agriculture was mainly farming and that the highest you could go in agriculture was owning your own farm. Hispanic students also were less likely to feel that agriculture required a strong science background.

agriculture being equivalent with manual labor and low socioeconomic status. Studies exploring minority perceptions (Trotter, 1988; Gardner, 1991) also found that Hispanics view agriculture as mainly farming, low paying and requiring

Table 2. Means of individual perceptions of agriculture of Hispanic and non-Hispanic high school students (N=125).

Statement	Hispanic (N=59)	Non-Hispanic (N=66)	Difference in Means
	Mean	Mean	
Agriculture is mainly manual labor	3.05 <sup>a</sup>	3.53	-0.48
Agriculture requires mainly unskilled workers	3.69	4.11	-0.42
Agriculturally-related jobs are low paying	3.59	3.98	-0.39
Careers in agriculture provide an unstable income	3.13	3.48	-0.35
Working in agriculture provides no benefits such as health insurance or retirement funds	3.37	3.70	-0.33
The highest you can go in agriculture is owning your own farm	3.47	3.79	-0.32
Agriculture is mainly farming	3.58	3.86	-0.28
Many careers in agriculture require a strong science background	3.36	3.62	-0.26

<sup>a</sup> 1=strongly disagree to 5=strongly agree

Whent (1994) stated that many minorities view agriculture as degrading, synonymous with hard labor, low prestige and low pay. Nichols (1993) also found that Hispanic students perceived agriculture to involve manual labor, be low-paying and require unskilled workers.

These perceptions may be based on negative family or personal experiences or perhaps a general lack of understanding about the industry. This concurs with Hoover and Houser's (1991) statement that "Perception is reality. If high school students perceive a career in agriculture to be associated with manual labor, low salaries, contingent upon weather conditions, unstable job security equivalent to farming; they will be less likely to pursue a career in agriculture." (p. 14). These findings also concur with Trotter's (1988) finding that minorities' perceptions of agriculture tend to be more negative and those of Larke and Barr (1987) who stated that minorities hold stereotypes of

unskilled workers.

## Conclusions and Recommendations

### Barriers to Higher Education

Institutions hoping to increase Hispanic student enrollment must be aware of the barriers, both perceived and actual, that Hispanic students face. Colleges of Agriculture and universities in general need to specifically target these barriers which Hispanic students feel they encounter in higher education. The Hispanic students in this survey did not feel they understood how to apply for scholarships or financial aid. Workshops should be conducted in Spanish and English for high school juniors and seniors and their parents on how to apply for these types of aid.

Hispanic students faced specific barriers relating to culture and family. Programs targeting the parents of prospective Hispanic students should be conducted, which

may be designed to address their lack of awareness of higher education issues ranging from the admission process to a description of the various majors available on campus.

Hispanic students had a difficult time imagining themselves in college and did not feel as though they would fit in college. This reflects the importance of role models in career selection. In Baker and Olsen's (1992) study, the minority students specifically stated that they wanted to see more minority faculty members and administrators in the College of Agriculture.

Many of the barriers the Hispanic students faced were related to inadequate preparation. High schools need to do a better job in preparing Hispanic students for college. High school guidance counselors, teachers, and college admissions offices need to better explain the admissions process to Hispanic students. Bilingual information should be offered to Hispanic families ranging from financial aid to standardized tests and application deadlines.

The Hispanic students in this population were less likely to feel that they were taking the proper classes for college. These students also knew less about the careers associated with an advanced degree. Guidance counselors, teachers, along with college recruiters, should inform these students about the vast number of careers that require some form of post-secondary education. Colleges of Agriculture need to work with high school counselors and provide them with information related to obtaining a degree in food, agriculture, and natural resource sciences.

### Perceptions of Agriculture

On select items, many of the Hispanic students in this study had a rather negative perception of agriculture. Colleges of Agriculture and school districts should work with the agricultural industries to change the rather stereotypical view of agriculture. With the assistance of industry and through school-to-work based apprenticeships and employment programs, students can experience the technical aspect and diversity of agricultural employment and careers.

Interaction with industry will also provide minority youth with additional information related to agricultural salaries. This exposure, coupled with the increasing demand for graduates, makes majoring in agriculture a lucrative possibility. Experts agree that the employment market for College of Agriculture graduates will continue to be strong during the next five years (Coulter et al., 1995).

### Minority Recruitment Strategies

Colleges of Agriculture that wish to increase their enrollments of minority students must make a broad-based

financial commitment to this process. One of the most limiting factors of minority enrollment is lack of financial support. Colleges of Agriculture must provide information regarding the university's financial aid system. Many first generation college students and their families have no idea how to apply for financial aid. Currently at the University of Florida, only one-tenth of the scholarship money set aside for African-American students is available for Hispanic students (Cannon, 1996). Workshops on how and when to apply for scholarships and aid, campus employment and money management need to be provided both in English and in Spanish.

At the University of Florida, the College of Agriculture actively supports Minorities in Agriculture Natural Resources and Related Sciences (MANNRS) and participates in both Hispanic Heritage month and Black History month by providing support for educational programs. The college supports the university's Institute for Hispanic/Latino Culture. The college also works closely with the admissions office and their recruiters and provides personalized attention to prospective students. The College of Agriculture at the University of Florida has 22% minority enrollment (University of Florida, College of Agriculture, 1996). This is the highest minority enrollment of any College of Agriculture in the nation and is also the highest minority enrollment rate of any college within the University of Florida. Hispanic students comprise approximately 8.85% of the undergraduate enrollment within the College of Agriculture. This figure is also among the highest at the university and in the nation.

College recruitment needs to be targeted in the middle and junior high schools. Statistics show that many minority youth do not complete high school. There are many effective minority recruitment efforts across the country. They include some type of intensive visit or connection to the university and its agricultural program. Intensive on-campus programs such as those at Mississippi State, North Carolina State, and North Carolina A&T's Institutes for Future Agricultural Leaders (IFAL), Texas A&M's Ag JumpStart program, California Polytechnic Universities' 26 hours and Cal Poly, Michigan State's Minority Apprenticeship Program (MAP) and the University of Georgia's Ag Horizons should be adopted in some form or another by Colleges of Agriculture. These programs should be continually evaluated and improved to make sure that the needs of the minority students are being met.

Finally, Colleges of Agriculture need to recruit and employ more minority faculty members. Minority students need minority role models to look to for support and encouragement. If the agricultural profession wants to move forward and remain one of the greatest industries in the United States, our profession must reflect today's

increasingly diverse population.

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