



An Analysis of Senior Student Attributes in a College of Agriculture

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Introduction

- AFNR graduates will have good opportunities for employment through 2020 (Goecker, Smith, Fernandez, Ali & Theller, 2015).
- Current graduate numbers fall short of U.S. employment needs (Goecker, Smith, Fernandez, Ali & Theller, 2015).
- Colleges of agriculture and related sciences are hard-pressed to recruit and graduate sufficient quantities of well-qualified agricultural workers.
- Colleges rarely use empirical data in developing recruitment strategies (Baker, Settle, Chiarelli, & Irani, 2013).
- Effective recruitment strategies are needed for attracting students, thus helping to meet the increasing demands of the agricultural employment market.

Conceptual Framework

- Expectancy-value and involvement theories utilized in several studies.
- Recruitment measures, major selection, recruitment images, enrollment motivators (Wildman & Torres, 2001; Thieman, Rosch, & Suarez, 2016; Irlbeck, Adams, Burris, & Jones, 2014; Aliaga, Kotamraju, & Stone III, 2014; Calvin & Pense, 2013).
 - Parental support, teacher encouragement and self-motivation influenced enrollment decisions, including the role of an agriculture teacher.
- Riesenbergh and Lancaster (1990): While perception exists that students who had been enrolled in H.S. agriculture programs were less prepared for and less successful in college, findings indicated the opposite.
- Raven and Warmbrod (1990): Parents, school administrators and guidance counselors need to be informed that enrolling in H.S. agriculture does not necessarily prevent students from completing a college preparatory program.
- Raven and Barrick (1992): Enrollment in colleges of agriculture is no longer dominated by students from rural backgrounds; need to examine admissions and recruitment efforts.

Purpose & Objectives

- Investigate the attributes of agricultural college seniors.
- Provide guidance for recruitment of students into agriculturally-related majors.
- As overall college enrollments increase, then the number of students majoring in agricultural education should increase.

Examine the attributes of a select group of students in CALS who were classified as Rank 4 (seniors) in the Spring semester of 2016.

Methodology

- 1,647 CALS rank 4 students identified from college records
- 444 had graduated from a Florida high school that offered courses in agriscience education, which became the study group
 - 121 students had completed one or more credits of agriscience
 - 323 had not based on a review of their high school transcripts
- The 444 students had graduated from one of 156 high schools from among the 194 schools that offer agriscience courses.

Methodology

- University admissions data and student transcripts utilized to identify the attributes of interest.
 - Data collected by college staff
 - Measures of central tendency calculated for the students who had credit in H.S. agriscience (labeled “With”) and those who did not (labeled “Without”)
- Study approved by University of Florida Institutional Review Board.
- To maintain confidentiality of student records, the study was also approved by the university’s Vice-President for Enrollment Management.

Results

- 165 seniors (37%) completed an A.A. degree prior to admission: 60 percent of With students and 28 percent for Without students.
- 55 percent of With students had transferred from a community college compared to 25 percent of Without students.
- 74 percent of the With students were White versus 58 percent of the Without students.
- 83 percent of With students initially enrolled in CALS while 55 percent of Without students initially enrolled in a different college.

Results

- Differences in students' majors
- With students more often (greater than 50%) majored in:
 - Agricultural Education
 - Animal Science (except the Animal Biology track)
 - Agricultural Operations Management
- Without students more often (75% or greater) majored in:
 - Biology
 - Dietetics
 - Forest Resources & Conser.
 - Internat'l Food & Resource Econ.
 - Food Science
 - Nutritional Sciences
 - Family, Youth and Community Sciences
 - Geomatics
 - Marine Sciences
 - Microbiology & Cell Science
 - Wildlife Ecology and Cons.
 - Bio. & Agric. Engineering
 - Environmental Science

Results

	With HS Agriscience (n)	Without HS Agriscience (n)
H.S. GPA	4.23 (48)	4.26 (234)
ACT Total Score	24.6 (94)	25.4 (263)
SAT Total Score	1686 (75)	1771 (256)
UF GPA	3.19 (121)	3.23 (323)

Conclusions

- Nearly three-fourths of the students from high schools offering agriscience did not enroll in any agriscience courses.
- 38 of the 194 high schools offering agriscience courses had no students enroll in the study group.
- Extensive differences in college majors between the two groups.

Conclusions

- There were few differences in academic abilities between groups.
- Little difference between the two groups' academic success in the college.
- Larger proportion of students With agriscience credit enrolled in the college after earning a degree from a state community college.
- Disparity in race/ethnicity between the two groups.

Recommendations & Implications

- More effort should be made in identifying why students who chose an agriculturally-related major in college had not enrolled in high school agriscience. The agricultural education profession should investigate the potential reasons for this phenomenon.
- In this study group, there were no students from 20 percent of the high schools. More information is needed to identify why agriscience students do not enroll in the college and therefore propose recruitment strategies to encourage those students to pursue a degree in agriculture.
- Students of color appear to be unequally represented between the groups. Since all the students came from the same high schools, it could be beneficial to understand why the disparity occurs and identify steps to address the issue.

Recommendations & Implications

- Students With high school agriscience credit tended to major in more traditional “agriculture” majors than the Without group. Perhaps high school agriscience programs in Florida are not sufficiently broad to expose students to the broad array of opportunities for advanced education and a career in agriculture.
- Recruitment efforts should be expanded to attract more students who choose to enroll in a community college prior to applying to the university.



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Thank you

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