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**FILLING THE GAP: EXPLORING INTERNAL CHALLENGES AND OPPORTUNITIES TO  
SUCCESSFUL STUDENT RECRUITMENT IN APPLIED ECONOMICS DEPARTMENTS**

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## ***Introduction***

Successful student recruitment is the necessary first phase of successful enrollment management for a department or college. While the total number of degrees awarded in agricultural and applied economics increased by 17% between 1991 and 2006, the total number of college degrees awarded nationwide has increased by 37%. Not only has agricultural and applied economics underperformed relative to the nation in general, it has even more significantly underperformed in comparison to colleges of agriculture and natural resources, where, over the same period, degrees awarded has grown by 76% (Perry 2010). On the other hand, the USDA reported a 16% annual gap between the number of qualified graduates and employment opportunities in agricultural business and management, with colleges of agriculture and natural resources providing about 60 percent of the qualified students (Goecker et al, 2011). More than half of expected job opportunities in the agricultural, food, and renewable natural resources sectors between 2011 and 2015 are expected to be in agricultural and applied economics. Further, the 2010 U.S. Census indicates there is only a 1.3% rate of unemployment among agricultural economists (Georgetown).

Clearly there is demand for more qualified graduates in agricultural economics, agribusiness, and resource economics. Yet, in spite of this nation-wide need, several applied economics departments have recently been eliminated, while others face significant reductions and threat of elimination. Most departments regularly update curricula to produce graduates qualified for employment in their field. What is missing in the agricultural and applied economics disciplines is a sufficient number of students seeking to enter these fields. With more than enough employment opportunities upon graduation, an improved understanding of how to best attract students into these fields is necessary to begin addressing this shortfall.

The purpose of this study is to identify: (1) what challenges and constraints recruiters face in marketing agricultural and applied economics programs; (2) what student recruitment techniques currently deployed at the college and departmental levels, and (3) what techniques recruitment personnel consider to be most effective. By improving understanding of how these departments are marketed across the country, we can provide recommendations to improve marketing, particularly for smaller programs. Ideally improved marketing will increase both the quantity and quality of undergraduate student enrollment in agricultural and applied economics programs, helping sustain programs facing enrollment challenges and helping to meet the increasing demand for qualified graduates of this discipline.

### ***Background***

The majority of the literature exploring factors that influence undergraduate enrollment has focused on student perceptions and choices, rather than recruitment strategies and associated challenges. Studies analyzing student choices can generally be categorized as those examining factors which influence student choice of institution, and those examining student choice of major. Chapman (1981) identified specific student characteristics and external factors that guide college choice. Individual student characteristics found to be relevant include socioeconomic status, educational aspirations, aptitude, and prior educational performance. Influential external factors could be categorized into three groups: significant people, institutional characteristics such as size and location, and institutional recruitment efforts. Chapman's (1981) model of influence on institution choice has provided the theoretical foundation for much additional research (e.g. Desjardins et al., 1999; Robinson et al., 2007; Rocca and Washburn 2005; Herrin et al., 2011).

As student interests and employment demands of the industry change, colleges of agriculture must continually re-assess recruitment strategies to effectively attract students onto campus and into relevant degree programs. Previous studies focusing on recruitment issues in colleges of agriculture consistently identify parents as a strong influence on students' enrollment decisions (Robinson et al. 2011; Rocca and Washburn 2005; Cole and Thompson 1999). Participation in on-campus programs, general campus visits, and personal contact with college representatives, were found to have the most influence on college choice for agricultural students. While Cole and Thompson (1999) identified printed recruitment literature as being helpful in students' decision-making process, the more recent studies of Robinson et al (2011) and Rocca and Washburn (2005) identify information available on college and department websites as more significant. These results indicate a significant shift in preference for source of education-related information among high school students.

As important as identifying where and what types of information students seek colleges and careers, is understanding differences between students interested in careers in agriculture and students focusing on other colleges within a university. Tarpley and Miller (2004) found that students in Utah who planned to major in agriculture tended to have more interest in natural science and had higher ACT Interest Inventory scores in the Technical and Science areas than other students. This suggests that college of agriculture recruitment efforts should take advantage of these links, through marketing emphasis on the scientific and "hands-on" aspects of agricultural careers. More recent studies have found students with no agricultural background have both a negative view of and very limited awareness of career opportunities in agriculture, but attitudes and interest improved with increased awareness (Frazee et al. 2011; Baker et al. 2011). Recruitment into colleges of agriculture potentially could be positively influenced by

providing prospective students with improved information about the diversity of career opportunities within agriculture.

Students may shy away from careers that are perceived as risky or physically strenuous (Overbay and Broyles 2008), possibly deterring many from careers in agriculture. On the other hand, employment opportunities should be emphasized for students who consider financial and job security in their choice of major. For these students emphasizing that employment opportunities significantly outnumber qualified graduates, and unemployment is under two percent should be particularly attractive. Recruiters into agricultural economics should also be sensitive to gender and minority issues, as some researchers have found gender differences in student choice of economics as a major (Jensen and Owen 2001). Importantly, however, female and minority faculty have also been found to significantly influence female and minority students in choice of major (Rask and Bailey, 2002), and thus faculty who reflect these groups could be useful in promotional efforts.

Perry (2010) has studied enrollment trends in agricultural economics, and Goecker et al (2010) continue to update estimates of employment opportunities in agribusiness every five years, providing valuable recruitment information. However, beyond these general studies of student choice of institution and choice of major, more specific analysis of students' agricultural interests among students, and enrollment and employment trends in the agricultural industry, no study has explicitly examined recruitment strategies for agricultural and applied economics programs within colleges of agriculture.

## ***Research Methodology***

This study is designed to explore alternative ways to increase undergraduate student enrollment in agribusiness and agricultural and applied economics (AAAE) programs through analysis of current marketing of such programs at both the college and departmental levels. Qualitative in-depth interviews were conducted to inform design of a quantitative online survey. This survey was subsequently distributed nationwide to college and departmental personnel involved in undergraduate recruitment for AAAE programs.

Formal in-depth interviews with student services professionals at two different institutions were conducted to gain insight into factors affecting success of marketing academic programs. While these two institutions have AAAE programs of similar size, they differed significantly in the size of the institutions, college administrative structure, Carnegie classification, and are located in different regions of the country. Questions examined recruitment of three types of students: high school students, transfer students, and student already on campus but in other majors or undeclared (internal recruitment). Issues surrounding attraction, retention, and attrition were explored. In addition to specific recruitment strategies, recruitment personnel were asked how they describe AAAE, both as a program and a profession, to prospective students. Finally, they were asked what challenges and constraints they face in marketing of AAAE programs specifically.

Based on previous research and qualitative research results, an online survey was developed for distribution to college level student services and academic department personnel involved with undergraduate recruitment. Through extensive Internet search effort and, when needed, follow-up by phone, a distribution list was developed to include every institution in the United States and Canada which offer a four-year undergraduate degree in agribusiness or

agricultural or applied economics. In total, 184 (potentially) relevant contacts at 88 institutions were identified.

As a starting point, this survey collected background information regarding the institution's location, college and department sizes, names of relevant degrees, number of student services personnel employed by the college, and the number of departmental faculty involved in student recruitment. Respondents were then asked about the distribution of recruiting effort among university, college, and departments, the allocation of time between outreach to prospective students versus responding to direct student inquiries, and the use and perceived effectiveness of specific recruiting techniques. Respondents were asked about the size of the college or departmental advertising budget and use of those funds, as well as changes over the past three years in both time and money dedicated to recruitment. In addition, respondents were queried about AAEE program specific information such as the number of incoming freshmen, the distribution of majors among in-state and out-of-state students, retention rates, and graduation rates. They were also asked to rank factors they thought were most important in attracting students into agricultural programs in general and into AAEE programs in particular. Finally, the survey ended with two open-ended questions: "What, if any, challenges and constraints have you experienced in marketing Applied Economics (or similar) programs?" and "If you had unlimited resources, what recommendations would you make for effectively marketing Applied Economics (or similar) programs?"

Surveys were initially distributed to the full list in earlier December 2011. As of the end of December, thirteen student services staff and two departmental members completed the survey with representation from across the country, including 8 of 10 USDA regions. A follow-up reminder was sent in mid-January 2012.



## ***Results***

### *Results of Depth-Interviews*

Interviewees at both institutions involved in the initial in-depth interviews acknowledged a diminishing pool of traditional enrollees in agricultural programs, but expressed that their AAAE programs have high retention and internal attraction rates and low attrition rates. Significant differences were evident between these institutions in their general approach to recruitment and the specific techniques they employed. Most notably, the smaller institution had less staff time and funding, but spent more time on outreach-based contact and relationship building with high school teachers. The staff at the larger institution, who responsible for approximately eight times as many students and five times as many degree programs, however, opted instead to dedicate their resources to responding to inquiries from prospective students and their families.

For both institutions, student services staff indicated that prospective students even within Colleges of Agriculture, know little about AAAE. In addition, recruitment personnel themselves admitted a lack of understanding of the full breadth of AAAE programs. The breadth and the variety of terms employed by this discipline (e.g. agribusiness, agricultural business, agricultural economics, applied economics) further added to the confusion. Both expressed more difficulty recruiting for AAAE than for other traditional agricultural programs, and suggested some sort of recruitment “prop” as well as information identifying possible career options might be of help.

### *Survey Results*

Thirteen online surveys were completed by student services personnel involved with undergraduate recruitment, representing eight of ten USDA regions. Respondents had from one

to 27 years of experience in their position at their institution and described agriculture as representing a significant percentage of their state economy, with a broad definition of the scope of agriculture. Undergraduate enrollments in the colleges represented ranged from 725 to 3600 with enrollment in individual AAAE departments ranging from 80 to 300. The number of full-time student services employees employed by the colleges ranged from 2 to 20 and averaged just under nine. All appeared to involve Ag Ambassadors in recruitment fairly extensively, averaging about 26 students.

About 50% of the recruiting responsibility falls on colleges on average, with less than 15% falling on departments. Significantly though, those figures range from 10-85% for colleges and about 5-37% for departments, implying significantly different recruiting demands for agricultural colleges and AAAE departments across the country. About 60% of undergraduate student recruitment effort at the college level is focus on outreach to prospective students, but this ranges from 40% (meaning more focus on responding to direct student inquiries) to as much as 80%.

All of the colleges surveyed employ a variety of recruitment techniques. More than three quarters of those surveyed indicated that they visit high schools, college fairs, and community or technical colleges, attend FFA and 4H events, send material to high school students, host or participating in programs for both prospective and accepted students, and directly contact applicants by phone or email. Student Ag Ambassadors were reported to be used in nearly every facet of recruitment: contacting prospective student, hosting and/or facilitate activities for prospective students during on-campus visits, assisting with both on- and off-campus recruitment events and other relevant college functions, and generally helping to educate other students about majors and/or careers in agriculture. There was no consensus, however, in terms of what the

most effective recruitment techniques were, with only four techniques ranked in the top five by every respondent: making phone calls to students who have applied and/or been accepted, hosting or participating in programs for accepted students, partnering with and education of key constituent groups (e.g. central admissions counselors, tour guides, FFA and 4H advisors), and using student Ag Ambassadors to assist with recruitment.

Among the factors are thought to be important in attracting students into agriculture programs, survey respondents felt personal interest or passion for the subject and future career options were by far the most significant. There was less agreement about why incoming students are thought to be attracted to be attracted to AAAE programs. Having a general interest in agriculture, parents involved in the field, or personal connections with the department were most common among the top ranked reasons. While only six respondents offered reasons why students transfer into AAAE programs, four mentioned good career opportunities; small class sizes, good advising, and personal attention were all indicated more than once. When asked why students transfer out of AAAE programs, change of interest or stronger interest in other areas of agriculture were the most commonly answers. On average, three quarters of AAAE undergraduate students come from in-state and an average of about 20% from out-of-state (with a maximum of 40%), with only about 5% international students.

The survey ended with two open-ended questions which explored: “What, if any, challenges and constraints have you experienced in marketing Applied Economics (or similar) programs?” and “If you had unlimited resources, what recommendations would you make for effectively marketing Applied Economics (or similar) programs?” Most (11 of 12) of the answers to the first question related to the lack of awareness of the breadth of the agricultural industry in general and/or the employment opportunities available in agriculture and in AAAE

more specifically. AAAE programs face the dual challenge of attracting students to agriculture, and attracting the agricultural students who are predominately interested in natural science into a social science discipline. If provided with unlimited resources to market AAAE programs, the student services personnel surveyed would hire additional staff to help advertise through school visits, provide more outreach activities, including specialized events for prospective students and their parents, improve communications with the department, add social media advertising, provide job shadowing opportunities with industry professionals, and improve written marketing literature to demonstrate the business and international aspects of AAAE. One suggested creating “a whole campaign of flashy brag pieces to include print and ... videos...of what business [professionals] really do and how they affect the world and our day-to-day lives (and that it doesn't mean you have to do your job on a tractor!)”.

Overall, at the colleges surveyed, AAAE programs are called by twenty-two different names (including options within a major), with at least nine different primary degree names. Such variety reflects the diversity of programs and foci within the discipline, but likely makes cross institutional comparisons difficult for high school students and may or may not provide any clarity to high school students about what the programs are really about. The ambiguity of the “applied economics” phrase was not surprisingly highlighted in our in-depth interviews as a particular challenge to successful marketing of the AAAE programs.

### ***Conclusions***

Low unemployment rates and a variety and plethora of job opportunities for students trained in agribusiness or agricultural and applied economics suggests great potential to increase undergraduate enrollments in AAAE programs throughout the country. Enrolled students benefit

from personal attention and small class sizes, low rates of attrition suggest general student satisfaction with AAAE programs, and graduation rates are reasonable. As a whole, the discipline offers a very student-centric educational experience.

But just as earlier researchers found, lack of awareness of the industry and career opportunities are impediments to growth of AAAE programs. Improving awareness and understanding of the discipline, both among students and among College student services staff who are to compliment department-based recruitment efforts will be crucial to the sustainability of currently and potentially threatened programs. Achieving this improved awareness and understanding, however, will be difficult. This is particularly true of academic departments who are constrained in the time and financial resources which can be dedicated to developing and keeping current promotional materials. As such, in the interest of supporting the discipline as a whole, it is recommended that the discipline's national professional association support department marketing efforts. General web videos and templates could be developed and made available to departments about career opportunities in the field, unemployment rates of graduates from the discipline etc. Schools could then embed these videos on their website, or adopt these templates to their institutions, thus reducing the department marketing burden. Efforts should also be made at the national level to find opportunities to market careers requiring an AAAE background. Finding ways to get AAAE related-positions profiled in mainstream media and entertainment through television shows such as "Undercover Boss", for example may prove effective. As one responded aptly noted, "If there's a TV show about it, students will know what it is!"

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