

# A Proactive Model for Recruiting Students into Agriculture Disciplines

**Caula A. Beyl<sup>1</sup>, Anna F. Adams<sup>2</sup> and Elena G. Smith<sup>3</sup>**  
**University of Tennessee**  
**Knoxville, TN**



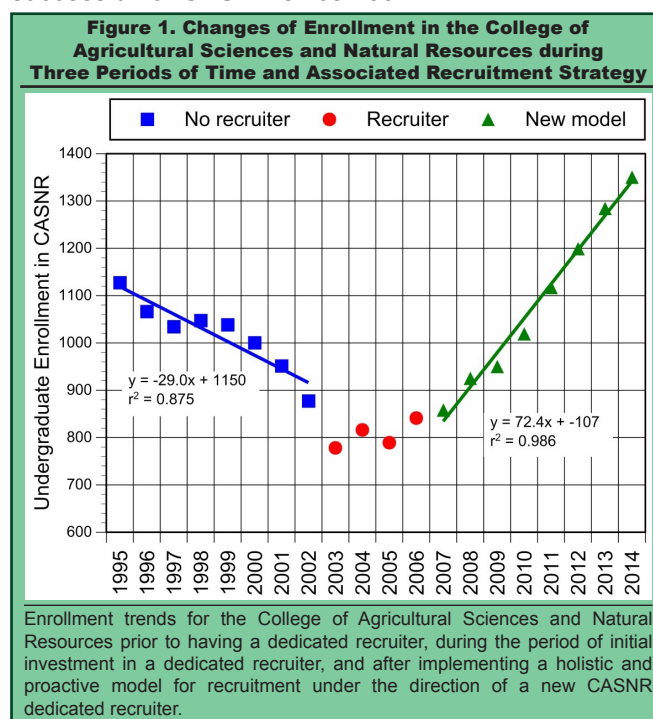
## Abstract

Recruitment of students into any field of agriculture is sometimes hampered by traditional perceptions of agriculture as being a study of “cows, sows, and plows.” Contrary to this misperception, modern agriculture encompasses discipline specializations that have wide appeal. Dispelling this myth of agriculture and replacing that image with the dynamic and cutting edge reality is the first challenge that we face in recruiting students. A second challenge that exists is the decline in the numbers of high school graduates entering college as evidenced by static and even declining higher education enrollments occurring in the last couple of years. We have developed a cadre of effective strategies for recruitment of high quality students that have enabled us to sustain an enrollment growth from 2007 to 2014 of 57.34%, much greater than that of the university as a whole and colleges of agriculture in a nine university land grant comparison group. Many of these strategies involve student engagement and input into the recruiting process, including the use of AgAmbassadors. These well-trained and talented student advocates of the college are used as peer-recruiters at college fairs and leaders of agriculture campus tours that end with a visit to a professor in the desired discipline area. Other strategies used are student critique and review of printed recruitment material, use of social media, targeting influencers and advocates about job opportunities and career options, and generous scholarship and mentor support. Today’s students are driven by a desire to “make a difference” and impact the world around them in a positive manner. Agriculture and all of its various disciplines offer an excellent opportunity to satisfy those needs.

## Introduction

From 1995 to 2002, the College of Agricultural Sciences and Natural Resources (CASNR) experienced a troubling and persistent decline in undergraduate enrollment from 1127 students in 1995 to 877 students

in 2002 (Figure 1). In an attempt to reverse this decline, the college hired an undergraduate recruiter whose primary focus was to attend college fairs across the state and pass out brochures about the college and its majors. This limited and highly traditional approach was not wholly successful and subsequent enrollment ranged from 778 to 841 until 2006, when the recruiter separated from the college. The position remained vacant until 2008. When a new dean for the college was hired in 2007, one of the first priorities was to develop the holistic, proactive recruitment model described in this publication. As a result of its implementation beginning in 2007, undergraduate enrollment increased steadily from 858 to 1350 in 2014. This publication presents some of the challenges for recruiting students into agricultural disciplines and the approaches that have proven to be successful for CASNR since 2007.



<sup>1</sup>Professor and Dean, College of Agricultural Sciences and Natural Resources, 865-974-7303, cbeyl@utk.edu

<sup>2</sup>Former Program Coordinator for Recruitment, College of Agricultural Sciences and Natural Resources, 865-974-7303, anna-adams@uwalumni.com

<sup>3</sup>Student Communications Assistant, College of Agricultural Sciences and Natural Resources, 865-974-7303, elegsmit@vols.utk.edu

### Challenges for Recruitment into Agricultural Disciplines

Many challenges exist for recruitment of students into agriculture disciplines, one of which is the antiquated perception of agriculture as a modern profession. As a result, students, when presented with agriculture as an option, are often unaware of the wide range of career options available to graduates of its many discipline areas. Very rarely is agriculture viewed as a cutting edge and technologically advanced research area. An outdated view of agriculture evokes images of farmers plowing, cows and sows, field production, and hard work for little reward. In one study using focus groups, middle school students equated the word farmer with “an old man, dressed in overalls, smelling dirty, and chewing on a straw” (Holz-Clause and Jost, 1995). The tremendous diversity of disciplines including genetics, research, engineering, and economics were not mentioned by the students in the study.

This imperfect picture of agriculture is also exacerbated by negative historical associations among groups underrepresented in today’s higher education population, particularly Hispanic and black students (Nichols and Nelson, 1993; Talbert and Larke, 1993). Throughout our nation’s history, much of the manual labor performed on farms has been conducted by minority workers (Talbert et al., 1999), which contributes to the view of agriculture as labor intensive coupled with low pay and prestige. Careers in agricultural education and food production are “stigmatized in the minds of students, particularly African American students” (Morgan, 2000). In a pre-college intervention program targeted toward underserved, economically-disadvantaged urban youth, students equated a career in agriculture with going “back to the fields” and the author speculated that this could be associated with recollections of sharecropping or slavery (Jones, 1997). Adverse associations with careers in agriculture persist today. *“Agriculture is viewed by many Latinos as a “dead-end career where only the negative perceptions of hard work, long hours, stoop labor, low wages, and working in harsh conditions are the norm. This negative perception will continue to challenge us in the coming years if not addressed”* (Romero, 2011).

Modern agriculture has also been depicted negatively in scare tactic marketing campaigns as consisting of large industrial farms raising animals in a factory-like setting as shown in Chipotle’s on-line video series “FARmed and Dangerous” (<http://www.hulu.com/farmed-and-dangerous>) and reinforced by its commercial “The Scarecrow” (<https://www.youtube.com/watch?v=Utnas5ScSE>), a companion to its new app-based game. These very negative depictions of farming can have an impact, both overt and subtle, on young viewers that persists when they are considering career options. Whether production occurs by large corporate farms, by small farmers, or by producers of organic produce, it is still “agriculture”.

The merit of attaining an agriculture degree has not been helped by inaccurate and misleading online

reports of the value of various college majors. In April of 2011, the Daily Beast came out with a list of the twenty most useless degrees. Among these, horticulture was identified as #2, agriculture as #3, nutrition as #10, and animal science as #20 (Daily Beast, 2011). In late July 2012, Terence Loose, a Yahoo blogger, posted an article entitled “College Majors That Are Useless” (Loose, 2012) and identified agriculture as useless degree #1, animal science as #4, and horticulture as #5. This article stimulated a flurry of responses refuting the conclusions reached and pointing out flaws in the survey used as a source for those conclusions. Even if online articles such as these are later challenged as perpetuating misconceptions about specific majors or the data sources are found to be flawed, the widespread access to this misinformation does not help to convey a sense of agriculture disciplines as a destination for choice for students struggling with career decisions.

A second challenge for recruitment of students into agriculture disciplines is the declining size of the pool of recent high school graduates (Prescott and Bransberger, 2012), who typically make up the bulk of incoming college freshmen. The number of high school graduates peaked in the 2010-11 academic year nationally and the Western Interstate Commission for Higher Education predicts short-term declines in all four geographical regions of the country studied. Demographic shifts are also expected with an increase predicted only for numbers of Hispanic high school graduates. The report also suggests that this may make recruiters search more aggressively for students like their traditional pool of students, but outside of their normal recruiting area (Prescott and Bransberger, 2012). Anecdotal evidence indicates that this may already be happening with recruiters from neighboring states targeting high talent Tennessee high school graduates more aggressively.

A third challenge that may soon have a major impact on the size of freshman classes recruited into the University of Tennessee for fall of 2015 is the passing of Governor Bill Haslam’s Tennessee Promise (<http://news.tn.gov/node/11955>). In this proposal, two years of community college or college of applied technology would be made available to graduating high school seniors in the state of Tennessee without obligation to pay tuition or fees. The Governor’s plan also reduced the amount of the Hope scholarship for freshmen and sophomores at state universities from \$4,000 to \$3,500 per year. Some of the potential impact of the Tennessee Promise implementation is that many confirmed freshmen may opt out of attending the university and choose local community colleges instead. Ultimately, this may have only a slight effect on enrollment as CASNR may gain upper level students as transfers from the community colleges.

Overall, the public perception of agriculture, the projected declines in the number of high school graduates, and the potential impact of education legislation in Tennessee have made it important to implement a proactive model for recruitment that encompasses multiple

avenues of communication, effective use of the internet and social media, and peer-to-peer interaction.

**Methods**

**Development and Implementation of a Proactive Model for Recruitment**

In developing details of a new proactive model for recruitment, the need to incorporate more than one approach and leverage assets by creating advocates for the college was clearly recognized. The conceptual diagram in Figure 2 shows the elements that comprise the recruitment strategy first implemented in 2007 and fine-tuned annually, although the core elements remain the same. A public education aspect was central to dispelling the myths about agriculture as a career option. Ironically, one of the most important targets for this educational campaign about agriculture was the university's own admissions office. The admissions counselors had little knowledge or appreciation of agriculture and the lack of knowledge impacted recruitment and even the acceptance rate into the college (6% lower for CASNR than for the university as a whole in 2008). The time invested in participating in Admissions training and educating the personnel about CASNR and its career options was well rewarded in terms of recruitment effectiveness at a campus level.

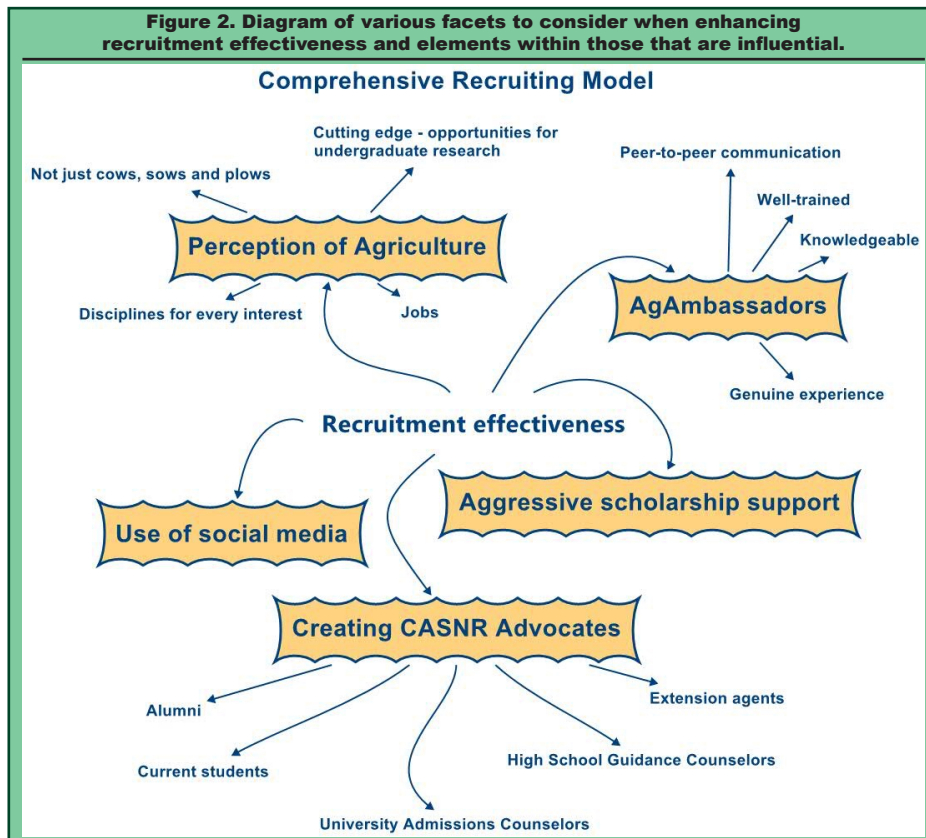
One aspect of the model that has proven to be important is correcting the perception of agriculture as a career field. This has involved depicting agriculture as being a discipline that can satisfy students looking for many different things in a career area. Those seeking an artistic and creative outlet may be attracted to landscape

design; those interested in working with people might be attracted to public horticulture or agricultural education. There are program choices in the college that appeal to business, technology, applied production, and research-minded students. On the web page for prospective students, we feature a table (<https://ag.tennessee.edu/casnr/Pages/CASNRundergraduatemajors.aspx>) that helps students choose majors in the college based upon interest and inclination.

Another trend that has helped with portraying agriculture as a viable career option has been the recent growth in job opportunities and demand for agriculture graduates. Reports concerning the need for more agriculture graduates to satisfy the demand have appeared in the last several years (Doering, 2013; McClure, 2014) and this demand has been underscored by the growth in the number of employers participating in the annual CASNR Career Fair. In 2013, the Coalition for a Sustainable Agricultural Workforce (CSAW) surveyed the six largest life science companies representing "97% of the private sector scientific workforce in biotechnology, crop protection, and seed" including Bayer Crop Science, Dow Agro Sciences, Dupont Pioneer Hi-Bred, Dupont Crop Protection, Monsanto and Syngenta. From this survey, a growth of 6.3% above and beyond replacement hires was predicted over the workforce that existed in 2012 by the year 2015 (CSAW, 2013). A recent news release from USDA, reports that agriculture is one of the best fields for new college graduates with nearly 60,000 high-skilled jobs expected each year in the U.S. and only 35,000 graduates available to fill these jobs (USDA, 2015).

Availability of jobs may not be the only motivating factor influencing students to choose agriculture. The fields of agriculture and natural resources are all about feeding the world and safeguarding the environment. The Millennial Generation identifies "making a difference" as more of a focus than financial success for a satisfying career (Smith and Aaker, 2013). This search for meaningful work and a potential to impact the future in a positive manner could not find a better home than in the agricultural and environmental science disciplines. This is reflected in our recruitment material and echoed by current students who have had the opportunity to participate in various high impact practices (Kuh, 2008) that positively impact retention and student engagement, such as 1) undertaking service learning (putting their education to work in volunteer service), 2) partnering with faculty to do undergraduate research projects, or 3) taking advantage of inter-

**Figure 2. Diagram of various facets to consider when enhancing recruitment effectiveness and elements within those that are influential.**





## **A Proactive Model for Recruiting**

national experiences where they can see the practical application of what they have learned to improve lives.

### **Creating CASNR Advocates or Recruiting the Influencers**

A college's primary recruitment focus will always be the individual prospective student. When budgets are lean, leveraging effectiveness is important. One strategy to do this is to create CASNR advocates. The recruitment model (Figure 2) contained a strategy of targeting the primary "influencers" of prospective students and their families. These include university admissions counselors, university orientation leaders, high school guidance counselors, and community college advisors. Influencers such as admissions counselors and advisors each speak to hundreds of students each year and investment in creating an advocate for the college typically yields a persistent recurring benefit. CASNR "recruits" influencers with the goal of inspiring and educating those that might impact the decisions of prospective students to become advocates for CASNR. This allows the college to increase its recruitment "staff" greatly with minimal cost.

The vast majority of the incoming first-year class are classified as Millennial students, defined as those born in the years from 1982 to 2004 (Howe and Strauss, 2000). The generational traits of these students help to design strategies that recruiters can use to attract them to specific colleges and careers. This generation is characterized as being very close to their parents and high school seniors and their parents are jointly making the college decisions (Howe and Strauss, 2007). By extension, authority figures such as high school guidance counselors, community college advisors, Extension agents, agriculture teachers, and other middle and high school officials are viewed as credible sources of information. Thus, targeting influencers for recruitment purposes is both efficient and effective. Up-to-date college recruitment materials, including our Major Selection Guide, which provides a short and to-the-point table matching student interest with appropriate CASNR majors provide busy educators with need-to-know information without excess wording. Large group campus visits ranging from 10 to 200 students are available with these visits designed to be both educational and entertaining with hands-on and engaging activities.

We support the efforts of university Admissions Counselors by participating in all local admissions events for prospective students as well as those for guidance counselors and university Ambassadors, to the extent of even providing refreshments for some of these events and offering the agriculture campus facilities and meeting rooms. We offer to take over email or in-person conversations with prospective CASNR students particularly when students are seeking more detailed information about the major that might exceed the more generalized knowledge of Admissions Counselors. This lessens the student load of Admissions Counselors, par-

ticularly during college fairs, and strengthens the collaboration between the CASNR recruiter and the university recruiting team.

Current CASNR students become some of our best advocates and word of mouth promotes the services, faculty advising, and the complete college experience provided by the college. This is evident from the number of transfer students we receive from other colleges on campus (eight times as many transfer in than out) and from the number of CASNR Legacy Families who have now had multiple generations graduate with CASNR degrees. CASNR alumni who come back to offer internships through their companies are CASNR advocates as well and have proven to be excellent unpaid recruiters for the college. Keeping alumni engaged with personalized thank you notes, invitations back into the classroom, and updates using the CASNR Chronicle electronic newsletter help tremendously.

### **Effective use of AgAmbassadors**

The millennial generation is heavily influenced by peers and many life decisions are impacted by these relationships (Howe and Strauss, 2007). Using peers as part of the recruitment process is an effective way to communicate about the college experience, agriculture majors, and career options. AgAmbassadors are a group of CASNR students selected to serve the college in recruiting of prospective students, representing and supporting the college at various events, and promoting public awareness of opportunities in the field of agriculture. AgAmbassadors are chosen by their peers in a competitive process that focuses on speaking ability, personality, and knowledge about agriculture and CASNR and receive an AgAmbassador scholarship.

The training of CASNR AgAmbassadors actually begins during the selection process. As part of their second round interview, AgAmbassador applicants are asked to prepare and present a five-minute presentation on a CASNR major other than their own. While this practice is used to test an applicant's interest level in the program, it also begins their training in public speaking and their education about CASNR majors. Furthermore, it encourages them to consider what information is most useful to prospective students. While public speaking is an essential component of the position of AgAmbassador, the selection process is holistic. An applicant's presentations and interview question responses are rated individually for quality. Then, the interview is rated in its entirety based on four key characteristics of successful AgAmbassadors: personable, professional, knowledgeable, and capable of public speaking. This provides an opportunity for students with less public speaking experience to excel in other areas of importance to the overall success of the AgAmbassador team. Final selection is based on excellence in these four characteristics as well as the composition of the overall AgAmbassador team. Quality of applicants, major distribution, diversity (race, gender, transfer student, homeschooling, geographic background, etc.), second time inter-

viewing, and academic year distribution are all considered in an effort to create an AgAmbassador team that is more than the sum of its parts. The interview and selection process gives applicants a taste of what it means to be an AgAmbassador, but their formal training comes in the fall at the annual Fall Training Retreat. This retreat occurs the two days prior to the first day of classes and all AgAmbassadors (both new and returning) are required to attend. New AgAmbassadors gain the most new information from the retreat, however, the retreat offers reminders, updates and team building for returning AgAmbassadors, as well as the opportunity to lead, share their experiences, and conduct training. Returning AgAmbassadors lead all non-administrative training sessions in order to encourage a mentoring relationship with new AgAmbassadors, an opportunity for leadership development, and fresh takes on old training topics.

The retreat starts with a demonstration on how to give an "Ag Campus" tour. The group then moves off-campus to a nearby 4-H lodge for enhanced team building. Other team building activities include regularly spaced ice breakers and energizers, a long break for canoeing, dinner at a local restaurant, and a night filled with s'mores around the camp fire. The entire retreat ends with a team builder activity in which students write a nice thought about each of their group members. AgAmbassadors rely as much on each other as they do their advisor. While these team building activities only take up a small fraction of the overall retreat time, they are integral to the success of the group and the execution of their mission.

The educational goal of the Fall Training Retreat is to prepare AgAmbassadors for attending college fairs, leading agriculture campus tours, and answering the questions of prospective students and their families. The foundational training, "Being an AgAmbassador," covers the AgAmbassador mission statement, job description and requirements, expectations and accountability, rewards of being an AgAmbassador, and the additional expectations and rewards of being a returning AgAmbassador. Frequently asked questions regarding the AgAmbassador program are addressed. The group then creates group guidelines for supporting each other as well as the organization's expectations for the advisor. The AgAmbassadors act as para-professional recruiters for the college as well as the institution, so they are trained on the incoming first-year and transfer student admissions and new student processes. This portion of the retreat is then brought to life with a session on frequently asked questions from prospective students and their parents.

The scope of the training is then narrowed specifically to the college. CASNR majors are discussed in detail so that AgAmbassadors understand their various concentration and minor options, common careers, and faculty involved in recruitment. Highlights and interesting facts for the majors are also discussed in order to grab the attention of prospective students. Training then shifts to CASNR programs. Overviews of each CASNR-

sponsored student organization and study abroad trip are given. The CASNR Dean's Scholars honors program is explained with its requirements and benefits. As the AgAmbassadors primarily recruit incoming first-year students, the CASNR Living and Learning Community first-year residential program is also presented. Finally, the entire training experience culminates with the staging of a mock CASNR college fair booth.

The Fall Training Retreat also serves several administrative purposes. Students add each other's phone numbers into their personal contact lists to ease future communications. AgAmbassador profiles are written up for use on the CASNR AgAmbassador website and hallway display. Individual and group photos are taken. The AgAmbassadors also make posters for an upcoming CASNR event. Finally, the Fall Training Retreat ends with an evaluation of the Retreat's sessions and operations.

The CASNR AgAmbassadors have also found it helpful to the organization to hold a Spring Retreat, which occurs the day before spring semester courses begin. However, the Spring Retreat focuses primarily on team building and leadership development. AgAmbassadors are each asked to develop a leadership project related to the AgAmbassador mission statement. These leadership projects are presented at the Spring Retreat and then implemented over the spring semester. The AgAmbassadors then host a luncheon with faculty members associated with recruitment in order to build relationships. Finally, the AgAmbassadors end the day with a fun teambuilding activity, such as bowling. While the Spring Retreat does not involve formal training, it has proven itself a beneficial way for the AgAmbassadors to regroup and prepare for the upcoming spring semester.

As part of the AgAmbassador experience, each participant is required to undertake a leadership project. These give the students the opportunity to apply critical thinking skills to determine what would best benefit the college and then plan and execute their project concept. The projects undertaken by the AgAmbassadors have been quite diverse. Some examples include developing a CASNR survey for current undergraduate and graduate students, faculty, and staff regarding Ag Campus resources and services; leading an initiative to get a coffee shop on the Ag Campus; and creating the CASNR AgAmbassador Scholarship for Student Advancement and a corresponding Chili Cook-off Fundraiser.

### The Web Presence

One of the first conclusions reached in 2007 was how difficult it was for students interested in attending the college to find relevant information about its programs and the admissions process. Information was available, but it was scattered over the college website as well as embedded in the individual web pages of each department. The dean hired a graduate student majoring in communications to design a one stop web portal that prospective students could go to first, which

## A Proactive Model for Recruiting

**Figure 3. The website portal initially used in 2008 to aggregate the widely scattered online resources and information into one access point for prospective students.**



could then serve to link them to information that they wanted such as seeing a video about CASNR, choosing an academic program, applying for scholarships, registering for a campus tour, and answering a variety of potential questions (Figure 3). Linking students to potential scholarship opportunities and making sure that they apply for all of the aid available has also been a potent recruitment tool. In two of the past years since 2007, the dollar amount of scholarship aid given from just CASNR alone has exceeded one million dollars. This amount of scholarship aid is among the highest on campus even though CASNR is the 5th ranked college among nine with respect to enrollment. This generous amount of scholarship support has been significant to parents of prospective students as well, particularly since the decision of what college to attend is heavily influenced by the parents (Howe and Strauss, 2007).

### **Bringing Technology into Campus Tour Scheduling**

In fall of 2012, CASNR began using iPads for recruitment purposes during college fairs and for recruitment presentations for several reasons. First, iPads grab the attention of prospective students. At the time of purchase, only one other Tennessee institution of higher education (a private university) utilized iPads in their college fair recruitment booth. With at least forty institutions at each college fair, and sometimes over 200, prospective students are given a plethora of options to explore in a short period of time. Gaining the students' attention at college fairs is so important that strict "Articles of Good Practice and Ethical Standards" were established by the hosting organization (Tennessee Association of College Registrars and Admissions

Officers, 2013). These articles forbid excessive recruitment tactics that unfairly steal the attention of prospective students, such as candy giveaways or displays involving audio. By using the latest in technology, institutions can set themselves apart from a sea of college fair booths in a manner that is respectful yet attention-grabbing.

Second, usage of iPads and other forms of trendy technology conveys the message that the institution of higher education is high-tech as well. Institutions would find it very difficult to travel with their top technology and research equipment, but highlighting everyday technology can be just as effective. In today's fast-paced, high-tech world, there is a sense of annoyance with outdated learning tools, such as paper forms and heavy textbooks. Therefore, institutions that utilize the technology of today and tomorrow as everyday tools are far more enticing to today's up-to-date student.

Third, iPad photo slideshows can help dispel the stereotypes associated with agriculture. Photos of real students experiencing hands-on agricultural learning can help to dispel these myths. However, the field of agricultural sciences and natural resources is so diverse; no one photo could accurately represent the college. Therefore, thirty seconds of watching an iPad photo slideshow can open a student's eyes to the wide range of options that exist in agriculture far better than looking at static images or even having a thirty-second conversation with a recruiter.

Fourth, the usage of iPads during college fairs and other recruitment events allows institutions the opportunity to educate prospective students about online resources. In today's world of higher education, the ability to navigate an institution's website is just as important as the ability to navigate the actual campus grounds. Having an iPad handy allows recruiters to show prospective students where to go to sign up for a campus tour or learn more about a specific major. This helps prospective students by encouraging them to visit the college website and providing them with a starting point for their online research.

Fifth and perhaps most important for the institution, iPads can be used at recruitment events to collect contact information from prospective students. Most institutions utilize paper information cards for this purpose. However, this later requires a significant cost in time in order to type this information into a computer program, so that it may be used for tracking and communicating purposes. There is also a significant risk to the accuracy of the information as handwriting can often be difficult to read and decipher. When prospective students type their own contact information into an iPad application, it allows for immediate merging into the institution's admissions data system and usage of that data. This practice increases the efficiency and accuracy of the overall recruitment process.



### Getting the prospective student on campus

"If we can get them on campus, we can get them to commit to CASNR." The visits arranged by our CASNR recruiter specifically to the agricultural campus have always been very successful at converting prospective students into those committed to attend CASNR. We offer one-on-one walking tours of the campus with a CASNR AgAmbassador as well as an introductory advising appointment with a faculty member from the prospective student's preferred department. Most prospective students and their families are amazed that a professor would spend an hour talking to them about career goals and academic opportunities and are encouraged by the thought that these advising appointments will be a regular occurrence once admission to CASNR has been granted. However, as our campus tour program grew more and more popular, there became a need to streamline the scheduling process in order to assure the highest level of service to each prospective student.

The first step in the process is for families to register for a campus tour on our website. This online SharePoint form asks for name, address, phone number, primary (student) and secondary (parent) emails, class level, planned major(s), and number of visitors in the group. Families may then select from the dates and time available. These potential dates and times are selected by CASNR a semester ahead based on availability, with same-week potential tour dates blacked out to encourage families to plan ahead. However, an "Other" option is available to families who cannot find a preferable timeslot. This same form is also used for those who call to request a tour, filled out by whoever takes the call.

Once a tour request is submitted, the family receives a confirmation email. The Program Coordinator of Recruitment and the AgAmbassador Scheduling Coordinator also receive a notification email. The AgAmbassador Scheduling Coordinator then contacts potential AgAmbassador tour guides and departmental faculty. Once those appointments are confirmed, the AgAmbassador Scheduling Coordinator inputs the appointments into the SharePoint system, automatically generating Outlook calendar invites for the AgAmbassador tour guide and professor, as well as the Program Coordinator for Recruitment and Dean's Office staff. This ensures that the AgAmbassador and professor have the appointment on their calendar. It also allows the Dean's Office staff to anticipate upcoming tours. Once the schedule is finalized, a campus visit itinerary email is sent to the prospective student and all those involved in the tour. A reminder email with the same content is also resent three days prior to the campus visit. This reminder email has significantly lowered our number of "no-shows," with families either remembering to plan for their visit or canceling the tour before the day of the tour. Once the tour has been completed, the AgAmbassador Scheduling Coordinator clicks an internal form button and a thank you email is automatically sent out the following day. Overall, the process has significantly increased internal

communication and knowledge of campus tours, as well as doubled the external communication to prospective students.

### Comparison of enrollment trends to the university and peer group

Total college enrollment data from 1995 to 2014 were divided into three periods based upon whether there was no college recruiter (1996 to 2002), an initial college recruiter (2003 to 2006), and implementation of the new recruitment model encompassing a recruiter and much more as described earlier (2007 to 2014). A peer comparison group was constructed based upon several criteria. Each university in the comparison group was required to have the following characteristics:

- Be a land grant university in the southeastern region of the U.S. or adjacent to the region
- Have a similar structure for its college of agriculture with comparable programs offered.
- Have similar enrollments as those of CASNR
- Have enrollment data for the colleges of agriculture available for the entire comparison period.

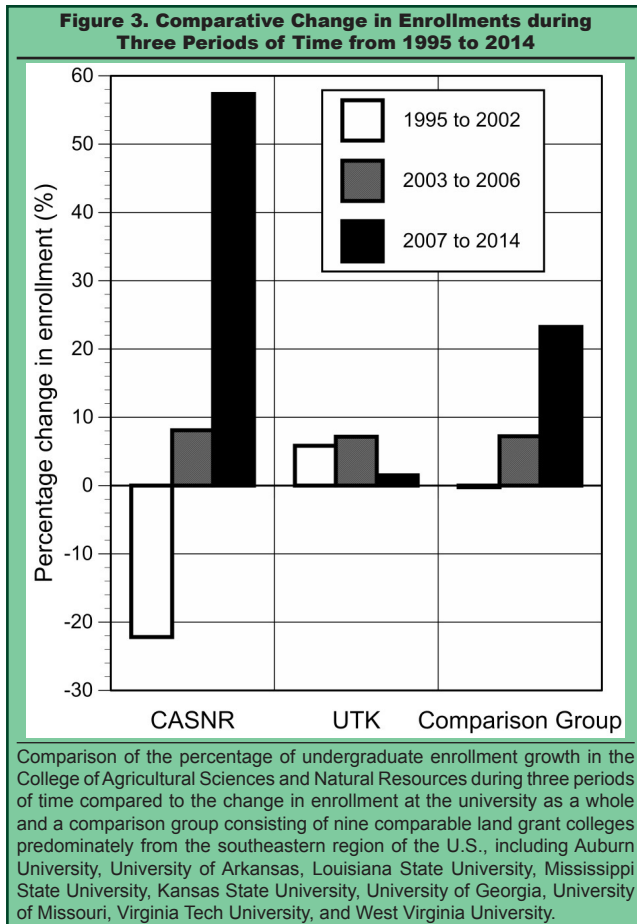
Nine universities were selected to generate comparison enrollment change data including the following: Auburn University, University of Arkansas, Louisiana State University, Mississippi State University, Kansas State University, University of Georgia, University of Missouri, Virginia Tech University, and West Virginia University. Annual enrollment (fall semester) data were obtained for the colleges of agriculture from these nine universities chosen as a comparison group for the period from 1995 to 2014 and then, percentage change in enrollment was calculated for each of the three periods to allow comparison to that of CASNR for each of the three periods examined in more detail.

### Results and Summary

Enrollment data were subjected to linear regression and significant models were described for the period of 'no recruiter' ( $y = -29.0x + 1150$ ,  $r^2 = 0.875$ ) and the period of the 'new model' ( $y = 72.4x + -107$ ,  $r^2 = 0.986$ ) (Figure 1). The positive growth in enrollment under implementation of the new model was consistent throughout the period from 2007 to 2014, which provides tangential evidence for its effectiveness. The percentage growth for the three periods defined above for CASNR was compared to percentage growth during the same period for the university as a whole (Figure 4). From 1995 to 2002, CASNR's enrollment declined 22.18%, whereas the university grew its enrollment by 5.83%. From 2003 to 2006, CASNR grew at a comparable rate (8.10%) to the university (7.15%), but in the years from 2007 to 2014 when the recruitment model was put into place, CASNR's enrollment grew 57.3% compared to only 1.5% for the university.

When the change in enrollment for CASNR was compared to that of the peer comparison group (Figure 4), CASNR had a greater decline in enrollment (-22.18%)

## A Proactive Model for Recruiting



than did the comparison group (-0.17%) for the period from 1995 to 2002. During the time that CASNR first invested in a recruiter (2003 to 2006), a positive change in enrollment of 8.1% occurred relative to 7.22% for the comparison group. After implementation of the more comprehensive recruitment model from 2007 to 2014, CASNR experienced a growth of 57.34% compared to 23.23% in the comparison group.

The only other university in the comparison group to experience growth of similar magnitude to CASNR was Mississippi State University with a growth of 58.23% relative to CASNR's 57.34% from 2007 to 2014. The elements that contributed to the successful growth in enrollment at MSU were related by George Hopper (personal communication), the Dean of the College of Agriculture and Life Sciences, when he indicated, "Without question, we have had a plan for managed enrollment growth in place since 2005 and have implemented it all along the way. New curricula, recruiters, target markets, new scholarships, summer youth camps, enhanced job placement opportunities with alumni including paid professional experiences and internships in residency, etc." The growth experienced at MSU was clearly the result of carefully implemented strategy and many elements in common with the strategies employed by CASNR.

It is evident from these outcomes that it is not enough merely to hire a recruiter. A proactive recruitment plan must encompass best use of resources available including all forms of communication from written

to electronic, effective use of student resources for critique and engagement as peers, and an awareness of what makes the college unique and appealing to the prospective student and their primary influencers. All of these various factors have been taken into consideration in the proactive recruiting model presented here. We know that not all these techniques will prove to be of value to every college of agriculture facing recruitment challenges, but we hope that they may provide ideas that may be adapted by others to attract talented students to lucrative and impactful careers in modern agriculture for the future.

### Literature Cited

- Coalition for a Sustainable Agricultural Workforce (CSAW), 2013. 2013 Agricultural Science Workforce Census. <http://www.sustainable-ag-workforce.org/sites/g/files/g157851/f/attachments/CSAW-2013Census.pdf>
- Doering, C. 2013. Want a job? Agriculture industry teeming with them. <http://www.usatoday.com/story/money/business/2013/07/14/farm-industry-struggles-to-attract-workers/2512685/>
- Goecker, A.D., P.G. Smith, E. Smith and R. Goetz. 2010. Employment opportunities for college graduates in food, renewable energy, and the environment. From U.S.D.A. National Institute of Food and Agriculture. <http://www.ag.purdue.edu/usda/employment/pages/default.aspx>
- Holz-Clause, M. and M. Jost. 1995. Using focus groups to check youth perceptions of agriculture. *Journal of Extension* 33 (3). <http://www.joe.org/joe/1995june/a3.html>
- Howe, N. and W. Strauss. 2000. *Millennials rising: The next great generation*. New York, NY: Vintage Original.
- Howe, N. and W. Strauss. 2007. *Millennials go to college*. 2nd ed. Life Course Associates.
- Jones, L.S. 1997. Opening doors with informal science: Exposure and access for our underserved students. *Science Education* 81: 663-677.
- Kuh, G.D. 2008. High-impact educational practices: What they are, who has access to them and why they matter. Association of American Colleges and Universities. <https://www.aacu.org/leap/hips>
- Loose, T. 2012. College majors that are useless. Yahoo. July 2012. [http://education.yahoo.net/articles/most\\_useless\\_degrees.htm](http://education.yahoo.net/articles/most_useless_degrees.htm)
- McClure, O. 2014. U.S. agriculture faces shortage of trained scientists. *Southeast Farm Press*, May 20, 2014. <http://southeastfarmpress.com/miscellaneous/us-agriculture-faces-shortage-trained-scientists>
- Morgan, J. 2000. African Americans and agriculture. *Black Issues in Higher Education* 17(8): 21-30.
- Nichols, T. and C. Nelson. 1993. Hispanics in agriculture: Barriers to educational recruitment. Proceedings of the 20th National Agricultural Education Research Meeting. Nashville, TN 20: 15-21.



- Prescott, B.T. and Bransberger. Peace. 2012. Knocking at the college door: Projections of high school graduates. 8th ed. Boulder, CO: Western Interstate Commission for Higher Education.
- Romero, E. 2011. Our thoughts on agriculture today. Latinos in Agriculture Leaders Forum. Posted June 19, 2011. <http://agforlife.com/latinos-in-agriculture-leaders-forum/>
- Smith, E.E. and J.L Aaker. 2013. Millennial searchers. The New York Times Sunday Review. [http://www.nytimes.com/2013/12/01/opinion/sunday/millennial-searchers.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2013/12/01/opinion/sunday/millennial-searchers.html?pagewanted=all&_r=0)
- Talbert, B.A. and A. Larke, Jr. 1993. Factors influencing minority and nonminority students to enroll in an introductory agriscience course in Texas. Proceedings of the 20th National Agricultural Education Research Meeting. Nashville, TN. 20: 23-30.
- Talbert, B.A., A. Larke, Jr. and W.A. Jones. 1999. Using a student organization to increase participation and success of minorities in agricultural disciplines. Peabody Journal of Education 74: 90-104.
- Tennessee Association of College Registrars and Admissions Officers. 2014. Articles of good practice and ethical standards of college fair participation. <http://www.tnacrao.org/resources/ethics.pdf>
- The Daily Beast. 2011. 20 most useless degrees. April 27, 2011. <http://www.thedailybeast.com/galleries/2011/04/27/20-most-useless-degrees.html>
- United States Department of Agriculture. 2015. One of the best fields for new college graduates? Agriculture. News Release No. 0135.15. <http://nifa.usda.gov/press-release/one-best-fields-new-college-graduates-agriculture>

**Join the conversation on Twitter: @nactateachers**

