AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

International Food and Agribusiness Management Review
Volume 15 Special Issue A

Doing More with Less in a Rapidly Changing Discipline– Smaller Agribusiness Faculties Teaching More Students

Global Networks, Global Perspectives and Global Talent
Discussions on the Development of Human Capital in Agribusiness[1]

Joshua D. Detre[Φa] and Michael A. Gunderson[b]

[a]*Assistant Professor, Department of Agricultural Economics and Agribusiness, Louisiana State University Agricultural Center, 234 Agricultural Administration Building, Baton Rouge, Louisiana, 70803-5604, USA*

[b]*Assistant Professor, Department of Food and Resource Economics University of Florida, 1121 MCCB, P.O. Box 110240 IFAS, Gainesville, Florida, 32611-0240, USA*

Abstract

The number of bachelor's degrees awarded in food and agribusiness management continues to climb, while the size of faculty that has traditionally taught in these programs declines. As a result, there is an opportunity for the International Food and Agribusiness Management Association (IFAMA) to cultivate good teaching among its academic members. This paper documents the trends and suggests six actions that IFAMA could take to create value for its academic members actively engaged in teaching: (1) facilitate surveys of professors and industry on agribusiness curriculums, (2) collaborate with like-minded organizations, (3) develop and maintain a database of industry speakers, (4) assist in the development of webinars related to teaching, (5) organize a formal teaching mentoring program, and (6) honor members for teaching achievements.

Keywords: Human Capital, students

[Φ]Corresponding author: Tel: + 1. 225.578.2367
Email: J.D. Detre: jdetre@agcenter.lsu.edu
M.A. Gunderson: mag79@ufl.edu

1 This Special Issue was made possible through the generous support of Alltech and Kincannon & Reed. The essay collection was distributed during a special session on human capital development presented during the IFAMA 2012 Forum in Shanghai, China on June 14, 2012.

© 2012 International Food and Agribusiness Management Association (IFAMA). All rights reserved.

Introduction

According to the US Department of Education, student enrollment at United States universities set record levels in the fall of 2010, and this trend is expected to continue through the fall of 2019. Trends in college enrollment internationally generally follows this same trend (UNESCO Institute for Statistics), with enrollments growing rapidly in developing nations like China and India. Higher educational attainment has led to higher lifetime earnings among US college graduates relative to their non-college graduate peers (Julian and Kominski 2011). The enrollment increases are due at least in part to the rapid growth of online degree programs offered by colleges such as the University of Phoenix.

Similarly, Colleges of Agriculture have also noted growing enrollments in the US More specifically, there has been a rapid growth in degrees awarded in agribusiness management. At the same time, there has been a decline in faculty numbers in departments historically known as "agricultural economics" departments (for a detailed discussion of the evolving names for the "agricultural economics cluster" see Perry 2010) (Perry 2010; Coleman 2007). Since the publication of Perry's article in 2010, an additional two departments of agricultural economics have been merged and/or eliminated at US universities (Clemson University and University of Nevada at Reno).

Trends in Student Enrollment and Faculty Size in Agricultural Economics and Agricultural Business Management Departments

The data used here are from the US Department of Education's Integrated Postsecondary Education System (IPEDS) and the Food and Agricultural Education Information System (FAEIS). The statistics provide clear trends in enrollment and faculty sizes. The number of bachelor degrees awarded in agribusiness management has grown 15% from 1986 to 2010 (Figure 1).

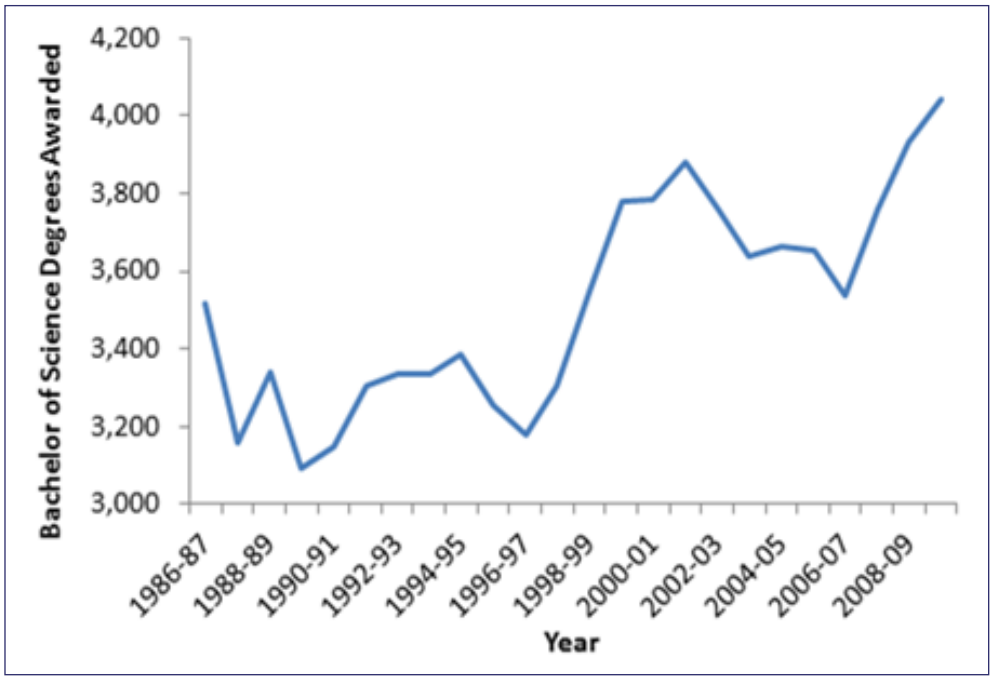

Figure 1. Number of Bachelor of Science Degrees in Agribusiness Management Awarded in the US.
Source: US Department of Education Integrated Postsecondary Education System (IPEDS)

The increasing demand for baccalaureate degrees in agribusiness management appears warranted. The Georgetown University Center on Education and the Workforce completed a study that indicated the un employment rate among those with a degree in agricultural economics was about 1.3% in the U.S (Carnevale et al. 2011). This ranks it among the 10 lowest unemployment rates among undergraduate majors and lowest among un-

© 2012 International Food and Agribusiness Management Association (IFAMA). All rights reserved.

dergraduate majors in the areas of agriculture and natural resources. In addition, the median earnings of those with a degree in agricultural economics were $60,000. The evidence suggests these are valuable degrees in the job market (Carnevale et al. 2011).

On the other hand, the number of faculty teaching in agribusiness management and related programs has declined substantially (2004-2010). Data obtained from FAEIS shows that for the programs in the Academic Area of Agricultural Economics, Agricultural Business and Management that have provided data on faculty numbers (48 departments), 26 have had a reduction in faculty size. Over the period (2004-2010), the faculty size of a department, on average, has decreased by 2.93 members. This equates to a 21% reduction in departmental faculty size from the peak. Figure 2, provides a visual depiction of these reductions. The drastic reductions in faculty size coupled with the increasing enrollment in our undergraduate program and demand for students with agribusiness management degrees has placed faculty in these programs in unfamiliar territory.

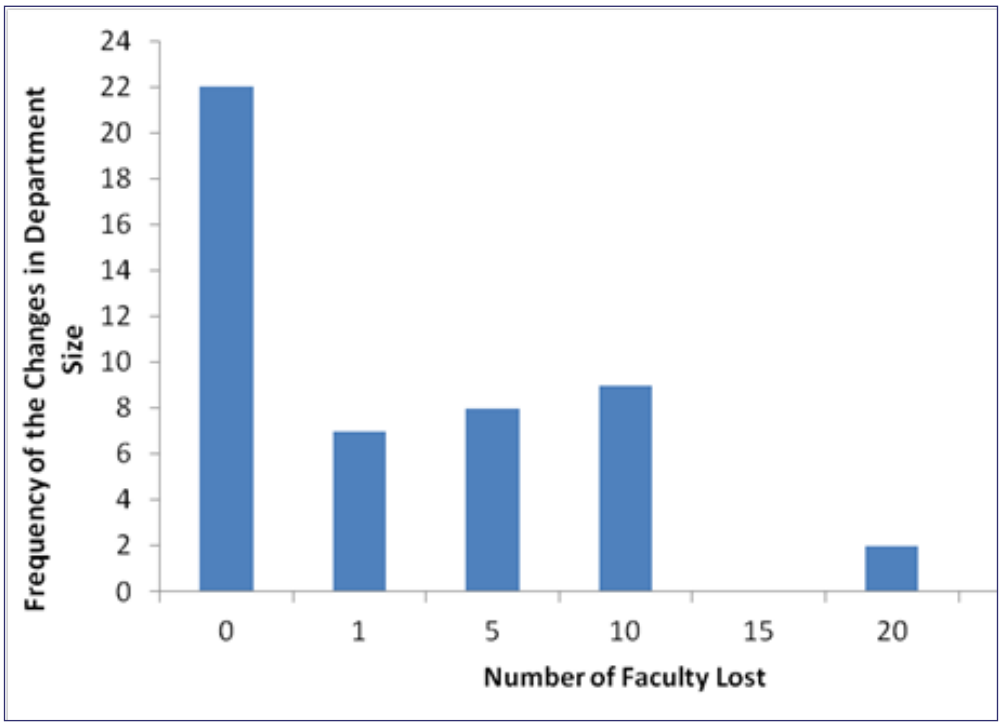

Figure 2. Frequency of the Changes in the Decline of Faculty Size in Agricultural Economics and Agribusiness Department
Source: Food and Agricultural Education Information System (FAEIS).

Opportunities and Challenges

Increasing student-to-faculty ratios will create challenges to the old methods of teaching. It will also force faculty to identify opportunities to use technology and improve the quality of teaching. Not only do employers generally prefer students with management and economic skills, they also want them to have well-developed "soft skills" such as the ability to solve problems and to communicate effectively (both oral and written) (Robinson, 2006; Gunderson et al. 2011). The preferences for these types of students place additional pressure on faculty, as faculty will likely find it challenging to incorporate such skills into their courses and, more importantly, across their curriculum. Faculty will need to use technology to improve mastery of material, create unique experiences that simulate business decision-making situations, and improve the communication skills of graduates. In the subsequent sections, we discuss these opportunities and challenges along with recommend courses of action for IFAMA in helping to address these issues. Table 1 contains a summary of these recommendations.

© 2012 International Food and Agribusiness Management Association (IFAMA). All rights reserved.

Table 1. Recommended Courses of Action for IFAMA to Address Opportunities and Challenges Facing Agribusiness Teaching Faculty

Recreating and Redefining Curriculum Offerings	
1	Facilitate surveys of professors and industry on agribusiness curriculum (needs vs. what we teach)
2	Collaborate with AAEA's Teaching, Learning, and Communication Section on Student
3	Develop and maintain a database of industry speakers willing to speak to agribusiness classes
Assisting Faculty in Using Technology and Implementing New Teaching Methods	
1	Assist in the development of webinars related to teaching technologies and methods
2	Organization of a formal teaching mentoring program

Recreating and Redefining Curriculum Offerings

The combination of increased student enrollment with a decrease in faculty size means there are likely to be fewer class offerings and that those classes offered will have a larger enrollment size. Consequently, it is essential that those classes taught provide students with the greatest opportunity to succeed. For example, Carnevale et al. (2011) finds that the top three occupations for agricultural economics majors are management, sales, and finance at 36, 21, and 11 percent, respectively; the top three industries for employment are finance (21 percent), agriculture (11 percent), and retail trade and public administration (both with 8 percent). The aforementioned results indicate that our profession, as a whole, should seek to meet with representatives of these concerned industries to find out what are the weakness and strengths of our programs.

Recommended Course of Action for International Food and Agribusiness Management Association (IFAMA) in Helping Departments Recreate and Redefine Curriculum Offerings

A quick examination of the literature related to agricultural business and economics reveals little research has been conducted on how curriculum has evolved over time and/or how industry is engaged to provide insight into curriculum development. Research related to these topics would help to inform departments on how to utilize industry in curriculum development and ensure that the students are learning skills that are demanded by the sectors that employ them. Consequently, IFAMA could issue a call for academic members willing to serve on a multi-institution team that will develop and administer two surveys. The first survey would be sent to professors and the second to industry. Both surveys would address agribusiness curriculum. The results of both the industry and faculty survey should be presented at the annual meeting and published in the *Special Conference Edition of the International Food and Agribusiness Management Review (IFAMR)*. This will provide maximum exposure of the results, and help to ensure that we are utilizing our limited resources effectively. While it is not necessary that these surveys be conducted on an annual basis, we would expect that they would need to be administered once every five to ten years.

IFAMA should also seek to collaborate with The Teaching, Learning, and Communications section of the Agricultural and Applied Economics Association (AAEA), which has undertaken a process of writing Student Learning Outcomes that might be shared by agribusiness undergraduate programs nationwide. IFAMA could assist in the program by internationalizing the sample. As part of the process, AAEA members have met with industry representatives to improve academia's understanding of the skills new employees need to have for success. IFAMA could help organize similar type meetings across the globe with relevant stakeholders.

© 2012 International Food and Agribusiness Management Association (IFAMA). All rights reserved.

IFAMA, through its industry contacts and based upon the results of the surveys, should seek to develop an industry guest lecture series. We envision a database housed on the IFAMA website that has a catalog of industry representatives willing to speak to agribusiness classes. The database would contain various biographical data including, but not limited to: industry, area(s) of expertise, location, preferred interaction method (on-campus presentation or video conference). Ideally, IFAMA would handle requests to ensure that requests are made in an equitable manner and to prevent anyone individual from being bombarded with requests for guest lecturing.

Using Technology, Implementing New Teaching Methods, and Training New Faculty to Meet These Needs

Faculty should use technology and new teaching methods to improve education outcomes. Faculty, however, should be cognizant of whether the technology and methods they are employing in the classroom are effective. For example, simply using PowerPoint slides to convey material is not maximizing the use of technology. Rather, faculty should incorporate technology and teaching methods to engage learners in the classroom. Whereas presentation slides allow students to be passive learners, technology such as student response systems (clickers), in-class computer simulations, and smart phone applications, and service-learning projects force students to become engaged and active learners, a task that is made more difficult as class size increases.

While technology and new teaching methods are tools that help generate successful results in the classroom, they are just part of the puzzle. The second part of the puzzle, and perhaps the most beneficial to a junior faculty, is access to a teaching mentor. Senior faculty members who teach have a wealth of tacit and institutional knowledge that a junior faculty member can draw upon. Access to a faculty mentor helps junior faculty members avoid pitfalls in the classroom they would otherwise encounter if they did not have a mentor.

Recommended Course of Action for IFAMA in Assisting Faculty in Using Technology and Implementing New Teaching Methods

The Association should encourage its members to develop webinars would focus on a particular technology and/or on what teaching methodologies provide the best results in large classrooms. The webinars should be kept relatively short, less than one hour, and would be accessible to faculty across the globe. This could be as simple as the Association asking members to create a webinar around a new technology they have recently adopted. In addition to the webinars, IFAMA could consider adding an annual workshop or organized discussion section that would focus on a new teaching technology, style, method, etc. as part of the Annual Symposium and Forum. For example, Harvard Business School offers a workshop on the case study method. Perhaps IFAMA could work to bring that workshop one day before/after the Forum and Symposium for interested members.

IFAMA might consider the possibility of organizing a formal teaching mentor program among the membership. More senior faculty could be paired with junior faculty to help with the design and review course syllabi, course assessments, and lecture materials. Faculty might denote these course materials as peer reviewed.

If we want agricultural business and economics programs to value undergraduate agribusiness education and faculty members to develop, it is important that IFAMA, an association dedicated to agribusiness, honor those that excel in the classroom. Consequently, we suggest that IFAMA have a set of awards: outstanding teacher at the instructor/assistant professor level, outstanding teacher at the associate professor/full professor level, and outstanding teaching mentor. These awards would demonstrate the Association's and the profession's commitment to outstanding teaching of agribusiness courses. Much like the Best Paper Awards at the Forum, these can be valuable recognition for faculty at all stages of their careers. In addition, the winners of these awards should be given the opportunity to write an essay that pertains to teaching and/or mentoring for the *Special Conference Edition of the IFAMR*.

© 2012 International Food and Agribusiness Management Association (IFAMA). All rights reserved.

How Do We Survive?

If the long-term goal for agricultural business and economics programs is to continue to produce students who are capable of meeting the needs of those firms that operate in the agricultural sector, they must be willing to commit the necessary resources and time. First, departments must be receptive to the needs of those firms hiring our students. That is not to say that a complete overhaul of the curriculum is necessary, only that we make sure that our curriculum is evolving with our customers. Related to the previous issue, is the ability to call upon industry, as a funding source for endowed professor positions in agribusiness, especially if these positions are utilized to meet unmet curriculum needs. Second, department/unit heads, through the relationships they have cultivated with industry, can call upon industry leaders to convey and promote the importance and merits of having a strong funded and fully staffed agricultural business and economics programs to those administrators responsible for the allocation of teaching positions. Finally, unit/department heads must provide training and mentorship on best practice methods for being an effective teacher. It is important to note that this training in best practices does not have to be limited to senior faculty in a department; it could very easily come from faculty outside of the department and/or junior faculty who can provide training on a teaching technology. If the above is accomplished, it will lead to improving not only the quality of teaching in departments but also the quality of our students, which ultimately makes agricultural business and economics departments more valuable to universities and colleges.

References

Colman, D. 2007. The Rise and Decline (?) of Agricultural Economics. Paper presented at the European Association of Agricultural Economists in its series 104th Seminar, Budapest. September. No. 8526.

Carnevale, A. P., J. Strohl, and M. Melton. 2011. What's it Worth the Economic Value of College Majors. Georgetown University Center on Education and the Workforce, Available at: http://cew.georgetown.edu/whatsitworth (accessed December 2, 2011).

Gunderson, M. A., J. D. Detre, B. C. Briggeman, and C. A. Wilson. 2011. Ag Lending: The Next Generation. *Ag Finance Review* 71(3): 280-294.

Julian, T. and R. Kominski. 2011. Education and Synthetic Work-Life Earnings Estimates. United States Department of the Census, Report ACS-14. Available at: http://www.census.gov/hhes/socdemo/education/ (accessed December 2, 2011).

Perry, Gregory M. 2010. What is the Future of Agricultural Economics Departments and the Agricultural and Applied Economics Association? *Applied Economic Perspectives and Policy* 32(1): 117–134.

Robinson, J.S. 2006. Graduates' and Employers' Perceptions of Entry-level Employability Skills Needed by Agriculture, Food and Natural Resources Graduates. PhD diss., Faculty of the Graduate School University of Missouri-Columbia-Columbia. Available at: https:// mospace.umsystem.edu/xmlui/handle/10355/4328 (accessed December 2, 2011).

© 2012 International Food and Agribusiness Management Association (IFAMA). All rights reserved.