

2014 Agricultural Economics Implementation Plan Report (Implementation plan submitted November, 2011)

Of the 50 recommendations contained in the Agricultural Economics 2011 Periodic Review, many involved one-time events that already occurred, or are naturally part of ongoing departmental activities without being explicitly strategic in nature. Following Lisa Collins' suggestion, eight recommendations were selected that were deemed most important to the department's strategic direction. In several cases, they represent desirable goals that are persistently challenging to meet. Even when little progress occurs over the span of a year, using the strategic planning process as a tool for visiting and revisiting difficult goals is productive. Other strategic goals on the list are ones where substantial progress is occurring. Some goals are combinations of recommendations from the review report.

The eight recommendations selected for emphasis are listed below, in the order they appeared in the Periodic Review Implementation Plan report.

1. Maintain a strong department seminar series to enhance professional development in all mission areas.

Assessment method: We maintain a spreadsheet of department seminars to track this goal. Information includes dates, speaker name and host, speaker affiliation, and topic. Goals are to have an appropriate frequency of seminars, a productive blend of external and internal speakers, and adequate coverage of mission areas and sub-fields within the discipline.

Results: In the 2013-14 academic year, 21 seminars were held during the fall and spring semesters. Six seminars featured internal speakers, and 15 were from outside UK. A grad student and a faculty member volunteer or are recruited to coordinate the series each year. In the previous 2012-13 academic year, there were 20 seminars, only 8 of which involved speakers from outside UK.

Analysis of results and reflection: While the results for 2013-14 showed a 5% increase in AEC seminars over 2012-13, the marked increase in speakers from outside the university was reflected in a nearly 50% increase from 2012-13 to 2013-14.

The coordinators' role is to solicit seminar invitations and to manage seminar logistics. Many speakers are invited by faculty members and the faculty member is the main contact for hosting their visitor. Some seminars are dedicated as practice sessions for graduate students prior to major conferences or competitions; others are training seminars for graduate students (e.g., how to develop a thesis prospectus). All graduate students on assistantship are required to attend seminars, and other graduate students and faculty are

encouraged to attend. The coordinators are given a \$3,000 per year budget. For 2014-15, the seminar coordinators are Shaheer Burney and Mike Reed.

The 2013-14 series was mostly successful in meeting our strategic needs during the last year, with appropriate frequency, a good mix of external and internal speakers, and a broad mix of topics. Success depends heavily on how active the coordinators are in soliciting speaker ideas. Areas for improvement are as follows:

- a. Increase faculty attendance – often only 3-6 faculty attend
- b. Include more extension-oriented seminars in the schedule (teaching-oriented seminars would also be welcome, but are abundant within other college and university venues)
- c. Increase engagement by grad students during Q&A.

Ongoing improvement actions: At the September 2014 faculty meeting, faculty were urged to attend the seminars. Similar statements can be included in faculty annual performance reviews. As with all activities that have no real bearing on performance reviews, mixed results are expected. As the chair, I will talk to extension faculty about contributing as speakers. I will also encourage students and attending faculty to make sure students are actively engaged instead of passively attending.

2. Recruit on and off campus to attract undergraduate students who want to be in the program, with emphasis on increasing freshman numbers, excelling in racial and ethnic diversity, and addressing the current gender imbalance.

Assessment method: Our primary source of information on undergraduate enrollment is the roster periodically distributed by the College. The most recent one was released in September, 2014.

Results: In Fall 2014, AEC has 30 freshmen enrolled, a record number and 12% of the student body. As of September 2014, 25% of the major's 251 undergraduates are women, versus 17% - 20% in the previous five years. Almost 13% of AEC undergrads are African American, Latino or Hispanic, or multi-racial. In the 2013-14 academic year, the Agribusiness Club officer team was almost entirely comprised of women, and many of AEC's academically accomplished women are active in Ag Ambassadors and Ag Student Council, which sets a good example for other students. Many of our minority students are members of UK's repeat national championship MANRRS chapter, and several participated in education abroad courses in the Dominican Republic, Panama, and France and Switzerland.

Analysis of results and reflection: The presence of Erica Flores as our academic coordinator is one of the biggest factors in the increased numbers of freshmen, women, and

minority students in our program. Erica engaged in explicit recruiting efforts on and off campus, and takes ownership of this strategic goal in a way that no faculty member has (or would be formally expected to). The department houses the CAFE Diversity Office, is one of the major sponsors of the annual Jr. MANRRS conference, subsidizes student travel to regional and national MANRRS conferences, and its chair is on the Diversity Advisory Council. These are additional factors that encourage minority students to enroll in AEC. We expect the B&E College to lower its GPA threshold due to declining student numbers and in response to the new budget model. This will reduce the portion of involuntary transfers into AEC.

Ongoing improvement actions: Continuing our current activities, enthusiasm, and financial support is expected to bring further progress. Repeat recruiting visits to the Chicago High School for Agricultural Sciences is building our reputation and will be encouraged with funding. Recent requirements that students earn a C or better in MA 123, ECO 201, and four core courses may inadvertently shift the gender balance, given national trends in academic performance. If teaching resources permit, one faculty member plans to offer a freshman-level course that may be an effective recruiting tool, but this plan is not yet well-developed.

3. Redesign the department's website to enhance its recruiting potential for graduate and undergraduate students.

Assessment method: Current and prospective student feedback is the primary means of assessment.

Results: Both current and prospective students consistently tell us that our website is decidedly not a recruiting asset. Two years ago, a departmental committee that included engaged graduate students, staff, and faculty collected examples of websites at peer institutions. Our IT staff created a new architecture and were ready to launch a renovation. This activity was halted by efforts at the College level to create an updated and consistent College platform for departmental websites. Little progress has occurred since.

Analysis of results and reflection: The College-level effort is moving slowly, and involves an architecture that does not allow for easy updating of materials by non-specialists. We recently confirmed that we have the latitude to use our own platform, as long as it maintains consistency with CAFE formatting.

Ongoing improvement actions: Subject to branding requirements and the reasonable requirements for a consistent look and feel across departments' front pages, we will move ahead with web page designs that meet our needs for timely updating, recruiting, and communication to stakeholders. In the case of promotional materials and events, we have

had good experiences with combining undergraduate student marketing teams and private sector creative design professionals (as opposed to technical expertise, which we have in-house). This option will be considered, among others.

4. Make conscious strategic decisions about involvement in distance learning.

Assessment method: Course schedules, enrollment numbers, student evaluations, and discussions in undergraduate committee and faculty meetings are the main items used for assessment.

Results: For several years, Roger Brown has delivered a hybrid course in Ag Marketing (AEC 305) that is one of the major's core courses. Online laboratory exercises are used as an option in some sections of Ag Management (AEC 302), and a fully online version was offered once in Summer, 2013. Likewise, a fully online version of Microeconomics (AEC 303) was offered in Summer, 2013. Ani Katchova developed PhD-level online econometrics teaching modules that are portable. The department is in the early stages of designing a master's-level course in ag management targeted mainly to extension agents; this course will be mostly delivered online.

Analysis of results and reflection: The distance learning courses developed so far allowed more students to be served at more flexible times. The additional capacity helped break a pattern where seniors were taking foundational core courses last in their programs, because they couldn't get access as juniors.

Specific factors other than just the live vs. distance format seem to determine the success of these courses. The hybrid AEC 305 course has innovative elements that encourage interaction, including abundant opportunities for face-to-face interaction, and seems to be reasonably well-received. The online AEC 302 labs let students replay detailed instructions about Microsoft Excel, and seems to be superior to the live experience in some ways. The AEC 303 distance learning version was a basic talking head / PowerPoint delivery that was not received well by students, despite being taught by the only instructor who has ever (in recent memory) received high student evaluations in the live version of this class.

Ongoing improvement actions: Faculty must be personally interested and committed to developing distance learning courses for them to launch and succeed. Roger Brown continually offers to help faculty learn the tools he tests and uses. As chair, I am promoting the creation of the MS-level ag management course for agents as a way to move the dial on a future MS degree in Agriculture that is accessible to agents for their career ladder. Discussions at the faculty level always contain a reassuring commitment to delivering quality education as the top priority.

5. Enable students to have experiential education and education abroad opportunities.

Assessment method: Track enrollment in ISP 599 for education abroad activities, assess career preparation potential of internships during approval of AEC 399 learning contract, discuss progress with employers.

Results: All entering AEC undergraduates are now required to fulfill an experiential education requirement. Four education abroad courses or activities were offered in 2014: agritourism in Panama, diverse communities in the Dominican Republic, agribusiness in France and Switzerland, and agricultural economics in China. We also encouraged students to participate in an internship through Maejo University in Thailand, and in independently arranged activities (one 2014 example being a summer internship in South Africa). Education abroad participation rates in AEC are below 10%, but are climbing slowly. We provided \$500 - \$2,000 subsidies for many students to remove financial barriers.

The first annual symposium in which students give presentations or posters about their internships or other experiential education is November 20, with several employers invited to attend. Our Academic Coordinator has developed strong working relationships with several employers, with demonstrated results. For example, last year several undergraduate students were hired at \$50,000 salaries by a company that did not previously recruit at UK.

Two AEC courses involve consulting projects, with or without compensation, for agribusinesses and other clientele. These are Ag Marketing and Sales (AEC 320), and Competition Team and Consulting Practicum (AEC 300). Combined with the newly required Career Readiness module (AEC 301), many students are getting training in professional and soft skills desired by employers. Student participation in academic competitions and activities has increased during the last four years, and now includes quiz bowl teams at a regional and a national conference, a case study team at the Food Distribution Research Society meetings, a National Agri-Marketing Association (NAMA) team, and an annual trip to the ASFMRA Summer Education Week for students interested in ag finance careers. Graduate students also participate in case study and extension competitions at higher rates during the last few years.

Analysis of results and reflection: The decision to subsidize students was an experiment to determine how much resistance to education abroad was due to financial barriers, and there were several cases in which students afterward said that they would not have been able to participate without the subsidy. Given the impact of education abroad on student

development, and the high regard with which employers hold international experiences, we intend to continue prioritizing these subsidies, budget permitting.

Faculty coordination of education abroad courses is immensely time consuming and expensive, and fall outside of regular teaching assignments where we are chronically short-staffed. Faculty are willing to offer international courses on a bi-annual, but not annual, basis. However, faculty-led short-term courses are the most successful means of encouraging student participation.

The consulting projects, academic competitions, and new emphasis on professional soft skills are producing encouraging results and meaningful educational opportunities.

Much improvement has resulted from making experiential education a budgeting priority. College-wide requirements are a major factor, and other major factors include the presence of an enthusiastic Academic Coordinator, and peer leadership among undergraduate and graduate students.

Ongoing improvement actions: As the new experiential education requirement affects increasing numbers of AEC students, the challenge will be scaling up the advising component and the annual showcase. Most of this responsibility falls on our Academic Coordinator. Experiential education, education abroad, and elements such as competition teams and consulting opportunities will continue to be a budgeting priority. The next highest use of those funds is graduate funding. Strategically, there are many opportunities to fund graduate students through grants that faculty are expected to pursue, while there are few ways of funding experiential education priorities.

6. Enhance graduate student opportunities to work in extension via applied research, and increase the extension faculty role in the graduate program.

Assessment method: Maintain contact with employers, Kentucky Farm Business Management (KFBM) being a prime example, who offer extension or related career opportunities to ensure that we are meeting their workforce development needs. Discuss outreach-related career opportunities during prospective student visits, reiterate those opportunities to new and continuing graduate students during the orientation process and when distributing position announcements, encourage participation with funding for the Agricultural and Applied Economics Association (AAEA) graduate student extension competition, and provide financial support for the departmental Summer Ag Tour for graduate students.

Results: The extension faculty are consistently willing to advise graduate students and be members of thesis and dissertation committees. The leading employer of graduate

research assistants is an extension faculty member. In the last two years, four MS students have gone directly into careers related to extension, outreach, or ag finance, with more on a similar path.

Analysis of results and reflection: Encouraging students to target an area of applied economics with abundant career potential is a way to differentiate our graduate program for terminal masters students. Some of our PhD students are also strong candidates for extension faculty positions, and with so few programs nationwide encouraging doctoral students to get extension programming experience, this strategy appears to be a good match with our comparative advantage in the discipline. Promoting extension and outreach activities as part of the graduate program is also consistent with our Land Grant mission. The biggest difficulty arises when students have high potential for success in careers that require a MS in ag economics, but struggle with the math and theory that is an unavoidable component of a largely research-based graduate program in economics.

Ongoing improvement actions: As mentioned in item #4, a faculty member is planning to develop a MS-level course in ag management that is accessible to extension agents as well as our own students. We will continue promoting the Summer Ag Tour, and using KFBM as a vehicle to introduce graduate students to extension-related data analysis. Recently, collaborative relationships between research and extension faculty have become more frequent due to the mix of people on the faculty, and this will encourage grad student exposure to extension applications.

7. Increase grant funding.

Assessment method: Track grant expenditures, graduate students funded on grants, and the mix of grants among extension and research faculty, and among junior and senior faculty.

Results: According to the UK Office of Sponsored Projects Administration (OSPA), realized income for AEC in FY13 was \$1,644,550, up from \$796,810 in FY12, \$867,860 in FY11, and \$657,295 in FY10. The FY13 total included \$613,793 of salaries and wages, \$858,642 of current expenses, and \$172,115 of indirect expenses. In FY14, sponsored project awards received through University of Kentucky Research Foundation (a subset of grants, contracts, and income) totaled \$719,675. Of that amount, 43% was obtained by 3 research faculty PIs, and 57% was obtained by 3 extension faculty PIs. Assistant professor PIs accounted for 33% of the total, associate professor PIs accounted for 57%, and full professor PIs contributed 10% of the department's grants.

Wethington Awards totaled \$66,253 in FY14, \$76,729 in FY13, and \$61,625 in FY12, with extension faculty receiving 79% of the FY14 awards.

Analysis of results and reflection: The majority of grants, contracts, and income are obtained by extension faculty. The large gap between OSPA's realized income number and its sponsored project award number is likely income dominated by the Income Tax Program, the Kentucky Ag Leadership Program, and the Kentucky Farm Business Management Program.

External funding for graduate students comes either directly from grants, or from salary savings freed up by grants. Extension faculty contribute the vast majority of both sources. Research faculty have consistently obtained unrestricted gifts during the last several years, which often support at least one graduate student at any given time, and are not recognized in OSPA's numbers. As of this writing, however, the entire department's faculty are supporting just one student on grant funds.

The department is fortunate to have budgeted internal funding for approximately 9 graduate research assistants. The standard assistantship stipend is low relative to many of our peer institutions, and grants offer the most effective way to offer higher stipends that will recruit high-potential students to the graduate program.

The department traditionally places low grantsmanship expectations on assistant professors (especially those with research appointments), because grant applications compete with publications for time, and publications are used as the primary measure of productivity. While full professors generated only 10% of the FY13 grants, the three programs listed above that contribute large income amounts are all coordinated by full professors.

Despite grantsmanship supporting the graduate program being a specific expectation listed in every research faculty position description and offer letter, overcoming a culture from years when public funding was more abundant is a challenge. The most common objections are that research-oriented grants are hard to get, and that grants are "an input" that should not affect performance evaluations. The "4" category in the performance evaluation system is so broad that it allows little distinction among varying grantsmanship performance, and the financial difference across rating categories is also so modest that faculty have few incentives to pursue grants that will primarily aid graduate students. This differs from the incentives extension faculty face, where external funding is needed to operate their own extension programs.

There seems to be some truth to the argument that funding agencies direct more of their increasingly scarce resources to extension activities, presumably because of an expectation of higher potential to deliver public goods. While research faculty could do more to participate in integrated grants where economic analysis is required, a further disincentive exists in that much of the analysis needed does not lend itself to publication in refereed journals, where a major criterion is methodological sophistication.

Ongoing improvement actions: Encouragement of newer faculty, consistent efforts to highlight the graduate program's reliance on faculty grantsmanship, and efforts to recognize that MS and PhD graduates are important research "outputs" are the main improvement actions that will be pursued.

8. Track and reward research impact

Assessment method: As of this faculty APR cycle, AEC research faculty were asked to document research impacts using whatever criteria they deemed reasonable. This is appropriate since we are starting from a position of no formal tracking of research impacts.

Given the Land Grant intent that publicly funded research contribute to the wellbeing of society, a hierarchy of impacts that progresses from internal disciplinary recognition to external public benefits seems reasonable. One example of such a hierarchy might be as follows:

1. Journal impact factors (disciplinary recognition, potential for more visibility in well-known journals)
2. Grant funding supporting research (recognition by external sponsor that research is expected to have value that justifies financial investment)
3. Citations and downloads from RePEc, Google Scholar, ResearchGate, and AgEcon Search (documented use of research within the discipline)
4. Presentation of research results to extension audiences, incorporation of results in extension programming, presentation to private or public sector decision makers, and coverage of results in the professional and/or public media (evidence of relevance beyond academia)
5. Demonstrated impacts on private or public decisions
6. Demonstrated impacts on private or public outcomes

Graduate advising has a multiplier effect in that our graduates are "outputs" who go on to impactful careers that would not have been possible without formative training and advising. A starting point is to simply track faculty activity as thesis / dissertation chairs or committee members. This information is available at the Graduate School website. Next steps involve recognizing conference presentations and research publications by graduate students, and applying the hierarchy above to graduate students' achievements.

Results: Currently, only a few faculty members have registered for accounts with RePEc, Google Scholar, and/or ResearchGate, so it is difficult to measure citations and downloads accurately. Grant funding is much easier to track and is concentrated among a minority of the faculty, although the newer faculty are showing especially promising results. Journal articles published in journals with high impact factors are rare, but a MS student recently

senior-authored an article with AEC faculty co-authors in our discipline's flagship journal. This is the first time a member of AEC senior-authored an article in this journal since 2002. Recent collaborations between research and extension faculty will produce research used for extension programming and for delivery to policy makers. Evidence of research impacts on decisions or outcomes outside academia might be submitted during the upcoming APR process.

Analysis of results and reflection: This strategic goal is likely to be contested by some, as would the above hierarchy example that does not give disciplinary recognition supremacy. Definitions of what constitutes "applied" research vary considerably, with some believing it is research using data, while others believe it is research that is applied by decision makers. Letting faculty define impacts using their own criteria in this year's APR process will be a way to both introduce the expectation that impacts should be measured, and to begin a discussion about the most productive expectations to hold for faculty.

Ongoing improvement actions: Currently the measurement of research impacts is at an early stage, and will be refined through discussions and developing metrics.