

Instruction

Introduction

Effective July 1, 2013, the College of Agriculture will take on the new name of College of Agriculture, Food and Environment. This new name reflects both our continued commitment to agriculture, and also the understanding that agriculture envelopes a very broad scope of food and environmental systems. Many, indeed most, of our students come from backgrounds that would not be described as traditional agriculture, and many of our students are being trained to work in professions which are connected with agriculture, food and the environment in a broader sense than may have been true decades ago. For example, a dietetics student may wind up working in a school making sure that students are provided with high quality foods including local vegetables, or a natural resources and environmental science student may be monitoring the health of a population of fresh water mussels in a stream in an agricultural area.

Besides the diversity in student majors and professional destinations, our students come from many different states and are very diverse. Our fall 2012 freshman class came from 35 different states, was 74.1% female, 39.1% out of state, and 10.2% minorities (including 3.5% African Americans and 2.2% Hispanics or Latinos). At this point, the College has begun to become concerned about declining rates of college-going males; we continue to work to recruit students from all classes of diversity.

In the fall of 2012, the College set enrollment records for both freshman (402) and total undergraduates (2573). Graduate student numbers reached 438 this year, although post-doctoral scholars have fallen recently with declines in the availability of federal grant dollars. Student retention within majors and within the College may be an issue for some of our majors; however, most of our students are retained at the University to a reasonably high degree. Six-year graduation rates for students who start in the College are somewhat better than for the University as a whole. Of course, as student numbers have grown, reasonable questions have come up about the adequacy of our instructional team to meet those instructional demands; at present, we have some concerns in some areas. Dean Smith has moved expeditiously to help shore up teaching deficits in those areas (see discussion below). New University-level attention to student credit hour (SCH) production or growth may encourage the College to consider its levels of SCH investment. Recently, a strategic decision was made to replace a staff associate in Academic Programs with an Academic Coordinator focused on career development and academic enrichment for undergraduate students; we believe that this will enable the office to better meet student needs. Academic Coordinators within units outside Academic Programs have expanded from one half-time position (Agricultural Biotechnology, ABT) to 5.5 positions (ABT plus Forestry, FOR; Natural Resources and Environmental Science, NRE; Dietetics and Human

Nutrition, DHN; Animal Sciences, ASC; and Equine Science and Management, EQM) with plans to add more in the near future. These flexible positions have greatly assisted individual programs in providing services to students and provide additional opportunities to tie together services from the Office of Academic Programs with program-level services. As the 2013 Southern Association of Schools and Colleges, Commission on Colleges (SACSCOC) visit approached, the University of Kentucky renewed its dormant campus-wide assessment program for student learning outcomes in 2009. Undergraduate and graduate programs were all responsible to develop assessment plans for their students; those assessment plans started with student learning outcomes and included curricular maps. While the degree of initial buy-in to the process was understandably variable, the results have been generally of value and we hope that sustained attention to assessment of student learning outcomes can be maintained after the SACSCOC visit has come and gone. Responsibility for the maintenance and renovation of the instructional facilities used for our classes lies with the Provost's office, the College, or with individual departments, and those spaces are in varying states of repair. A concentrated effort is underway to bring all classrooms into good order by 2014-15. As with any University, there are many policies intended to regularize treatment of students across the institution; our careful adherence to those policies is outlined below. The College has matched and even may have exceeded University-level progress with engagement of our freshmen (as measured by the National Survey of Student Engagement). Unfortunately, by the same measures, neither the College nor the University's seniors compare favorably with our Carnegie peers.

Fourteen bulleted concluding statements, drawn from the following sections of this report, are shown in the conclusions section of this chapter. Perhaps, strategies to enhance recruitment of students to high priority majors, minority students, and male students would be the strongest overall message. Secondly, we have some issues with retention in some of our majors, leading to relatively low graduation rates in those majors. Perhaps this is unavoidable (after all, not everyone with dreams of getting into veterinary school will achieve those dreams); however, we may need to find better ways to redirect students who find their dreams getting away from them. Finally, the investment the College has made in program-level Academic Coordinators has begun to pay off and looks to be ripe for further investment.

Enrollment Trends: Overall and by Major

Table 1 provides an overview of undergraduate, graduate, and post-doctoral enrollments by year from 2007-08 through 2012-13. The most dramatic trend is a 22.8% increase in undergraduate student numbers over that period (an average of 4.6%/year); majors contributing to that trend will be described below. This trend is similar to what has been observed over that time period in other colleges related to

agriculture across the US. Numbers of M.S. students were relatively stable until 2012-13; in that year, a net increase of 8 M.S. students was observed in both the Animal and Food Sciences program and in the Vocation Education program. In the case of Animal and Food Sciences, aggressive recruiting of MS students by Extension faculty with applied research grants has been mostly responsible. The increase in M.S. students in the Vocational Education program was related to an increased level of recruitment coinciding with new faculty hires. Some high school teachers in Title I schools were also recruited for graduate study as Title I funds their continued education. The number of doctoral student numbers increased by 13.7% over the term of this review. On the other hand, post-doctoral student numbers fell sharply from 2010-11 to 2011-12, almost certainly due to the effects of a \$10 million decline in external funding that year.

For purposes of this review, undergraduate majors have been placed into three “clusters”: food, animal, and biotechnology; social sciences; and environmental/sustainability. There are two reasons for this grouping—the first is to help look for trends in enrollments in majors which are similar in “content” and therefore could attract differing students (from a recruiting perspective) or potentially respond to differing market place factors (from a placement perspective). The second is an internal consideration: the current ADI would prefer that our units of analysis no longer focus on which ARC a major is associated with, but instead begin to break down that artificial barrier.

Table 2 shows enrollment trends for the rapidly growing food, animal and biotechnology cluster. The most rapid growth has been observed for Human Nutrition (+264% from 2007-08 to 2012-13) and for Equine Science and Management (which was not officially initiated until 2009, and already had 239 students enrolled by the fall of 2012). A special note about the Equine Science and Management program: as of March 1, 2013, 61.7% of its students were from out-of-state. While a few of those students are participants in the Academic Common Market or have tuition scholarships from the University, most are paying full tuition at out-of-state rates. Animal Sciences, which used to provide a home for students interested in equine science prior to the establishment of a full-blown equine major, has maintained its robust enrollment, and is still one of the largest programs in the College. Likewise, Dietetics remains a very well prescribed program, with over 200 students. Agricultural Biotechnology appears to have settled in at the mid-150 student range, a level with which the program is comfortable. Food Science has shown some recent signs of growth. The Department of Dietetics and Human Nutrition (responsible for both Dietetics and Human Nutrition programs) hired an Academic Coordinator (details below) to help with undergraduate advising; the Department also instituted an enrollment management plan to help better match enrollment numbers, workforce options, and faculty support. In addition, both Animal Sciences and Equine Science and Management have recently hired Academic

Coordinators to help with advising and various other aspects of their programs (details also below). Agricultural Biotechnology has had a 0.5 position in an “Academic Coordinator”-like role for some years now; that individual has been quite active in assisting with freshman transition and early career advising. Headrick (see below) whose role is officially listed as Director of Student Relations, spends an extraordinary amount of time hosting students and accompanying family members who are interested in Equine Science and Management. Now that students have begun graduating from that program in significant numbers (as of December, 2012), the rate of increase in student numbers may have begun to level off. In general, we do not have to recruit students to the majors in this cluster (food, animal and biotechnology); instead, they come to us asking for these majors. Some years back (in the mid-1990s, an intensive recruiting/PR campaign was mounted on behalf of the Agricultural Biotechnology program; that campaign worked so well that at present, many students come to campus knowing more about that program than any other. We do see some need to recruit to the Food Science program, as there are very good opportunities for students in this field, and we have had many inquiries from students (especially out-of-state) about this major. There are some concerns about potential faculty retirements leaving us short of the full suite of skill sets required for accreditation of the program by the Institute of Food Technologists.

Table 3 provides a longitudinal view of enrollments over the past six years for our six majors in the social science cluster. This cluster in the College is one of high, but relatively stable enrollment. A notable exception to that trend is Agricultural Economics, which has seen a gain of 36% in the number of its students over the review period. This is one of the “hottest” majors in the country right now—most students report finding good employment opportunities fairly soon after graduation. Community Leadership and Development went through an extensive curriculum review process, and established a set of pre-major CLD course requirements designed to help students assess their own fit for this major. Their numbers remain quite high. Family Sciences’ enrollments have been relatively stable over the review period. Recently, Hospitality Management and Tourism faculty chose to join the newly forming Retailing Tourism and Marketing Department; a curricular proposal which provides some course sharing for the Hospitality Management and Tourism (HMT) and Merchandising, Apparel and Textiles (MAT) programs is nearing approval at the College level. Taken together, these two programs have gone down by about 29% in their student numbers. On the one hand, it could be argued that their programs may have been unsustainably over-subscribed back in 2007-08, and without an increase in faculty numbers up through 2012-13, the decline in student numbers could be considered to be a positive step. However, Academic Programs is unsure if this is entirely the case; in fact, even in the absence of a career development staff member, we have provided human and financial resources to create an HMT/MAT Networking Dinner in both 2012 and 2013. The goal

of that dinner is to help connect these students with potential employers and thereby improve program outcomes. Time will determine the success of these events. Note that the values in Table 3-3 for Career and Technical Education (CTE) include both of the two options for that undergraduate program: agricultural education and family consumer science (FCS) education. Admission to the FCS-Ed option was suspended by the College (due to ongoing low enrollment) in the fall of 2011; a curricular proposal to formally suspend the FCS-Ed option has languished between University committees. There are some concerns about enrollments in the agricultural education option of the CTE program.

Finally, Table 4 shows enrollment trends for our students in the environmental/sustainability cluster of majors. Overall, this cluster gained about 26% for the five year review period. Majors most responsible for this gain were: Biosystems Engineering (+79%), Natural Resources and Environmental Science (+52%), and Forestry (+80%). Sustainable Agriculture, still an individualized program, has shown growth over the years of its existence; its Steering Committee is currently assembling a package for Dean's level consideration for submission as a full-fledged program. While the total number of students in this cluster remains small relative to either of the other two clusters, the College views it as a target of opportunity, both in terms of student interest and subsequent employment. Nationwide data show that most graduates of Biosystems programs go directly into the workforce with highly paid positions; our Department's data shows that a goodly number of its BS graduates turn around and continue directly toward an M.S. degree right here in the Department. Landscape Architecture numbers fell sharply around 2008-09 and 2009-10; faculty in the program ascribe this decline to the economic crisis which unfolded at that time. The decline in numbers in the Horticulture, Plant and Soil Science (HPLS) program has proven a concern to the Plant and Soil Science Department; even though that major is shared with the Horticulture Department, the former unit has voluntarily committed to providing a full-time Academic Coordinator to recruit to the HPLS major (and incidentally, to the Sustainable Agriculture Individualized program) for a three-year trial period.

Student Retention and Graduation Trends

The Office of Academic Programs has done a fairly intensive study on retention of College freshmen from our Fall 2004 through Fall 2010 cohorts, with an eye to their return both for their sophomore and junior years. We looked at their persistence within their initial major, our College, and the University. Those data are summarized in Tables 5, 6, and 7. Pooling those seven cohorts gave us an overall sample size of just over 2000 students, sufficient to get a reasonable look at trends. We would caution, however, that some majors will still be underrepresented because they may not tend to draw first-year students.

Our college-level freshman retention for the second (sophomore) fall ranged from 64.7% to 74.8%, and averaged right at 69.7% (Table 5). No trend in the data seemed to be obvious. Our college-level freshman retention for the third (junior) fall ranged from 50.6% to 59.3% and averaged 55.5% (Table 5). Again, no trend was obvious. Of course, we would prefer that those “hard-won” (through a variety of recruiting efforts) students would remain in the College; it is somewhat painful to note that an average of about 45% of these freshmen who chose our College from 2004-2010 were no longer in the College by their junior year.

On the other hand, the University does not mind if our students wind up choosing majors in other Colleges. Sophomore fall retention at the University level of our students averaged fully 10 percentage points higher than for our College, and junior fall retention at the University averaged about 16 percentage points higher (Table 5). Of course, every student retained in our College is also retained in the University, so these are not independent measures.

The College was also interested in sophomore and junior fall retention data for majors—remember, this is a bit tricky to evaluate on an annual basis, as student numbers can vary. Still, for most of our well-subscribed majors, the use of a seven-year data set should give us some buffer against ups and downs due to random variability. With that disclaimer, here are some observations from Tables 6 and 7. Over the years studied, nearly 25% of the freshmen chose to major in Animal Sciences (490 out of 2033). Approximately 40% of those students had left their initial major by their second fall semester, either for another major in the College or for another major at the University, or had left the University entirely. By their third fall (junior year), slightly more than 60% of these Animal Sciences students left their original major. However, these Animal Sciences students were very close to College averages for retention within the College for their second and third fall (they did run about 5 percentage points lower at the University level at both time marks).

Another large cohort of students from the food, animal and biotechnology cluster of majors is the agricultural biotechnology major (284 students over the 7 years studied; Table 6). Within major and within College retention percentages were remarkably similar for Agricultural Biotechnology and Animal Sciences; once again, over 60% of entering freshmen had left this major by their junior fall (Table 7). University-level retention figures were slightly better for these students than were the College averages.

One could argue that high attrition rates for these programs are due to the science content and to a high degree of difficulty. Table 7 shows that Biosystems Engineering lost an even greater fraction of their freshmen by their sophomore fall (only 53% retention), while junior fall retention was only slightly better (44%). However, the remarkable feature of this student group is that about 84% of them were still enrolled at

the University for their junior fall semester; the highest rate of any program in the College.

Clearly our students will continue to change majors; part of our strategy has been to attract them to the College in general and make sure that they are aware that they have an extensive array of opportunities to choose from once they get here. And our advisors will continue to provide positive direction to those who indicate an interest in fields outside of our College. Still, the details of the retention study will be made available to each degree program, and programs will be encouraged to evaluate whether or not any specific actions are worthy of consideration.

It is worth noting that some programs in the College had considerably higher retention rates than the college average at both the second and third fall marks—two good examples are Landscape Architecture and Equine Science and Management. Students who come to the College for these programs are apparently more highly invested in their field of study than are others; perhaps this investment gives them a higher degree of motivation to keep going when inevitable challenges arise.

Table 8 provides a comparative look at six-year graduation rates between the College and the University. These rates have been relatively stable in the upper 50% range for the University but have consistently been in the lower 60% range for the College. Over the five cohorts presented in Table 8, the College had an average six-year graduation of 62.0% compared with an average of 58.4% for the University. While neither of these rates are what we hope for, this does provide some evidence that our students are slightly more successful at reaching that academic marker than the rest of the University's students. One could surmise that might be so because we have recruited students with better academic credentials; a review of Table 9 would seem to indicate that has not generally been the case. Of the 11 cohorts represented in that data set, only the fall 2011 and 2012 College cohorts would seem to have better entering credentials than those of the University's corresponding cohorts. Several times over the years, first year UK GPAs have been lower for College students than for University students. That was not the case for the 2011 cohort, and we would not be surprised if our 2012 cohort also surpasses its University peers.

Given the propensity of our students to change majors, even to ones outside the College, it is perhaps not a surprise that our College's steadily increasing enrollments have yet to translate into marked increases in B.S. degrees awarded (Table 10). "Steady" would seem to be an appropriate descriptive term for the trend over the review period. While M.S. and Ph.D. degrees have shown some fluctuations from year-to-year, our programs have generally continued to be productive at the graduate level.

Undergraduate degree production differs dramatically among units, and does not directly relate to numbers of freshmen entering those programs. The Department of Dietetics and Human Nutrition produced nearly one quarter of the B.S. degrees awarded by the College in the most recently completed academic year (2011-12; see Table 11). Several social science departments were also quite productive in terms of degrees awarded: Agricultural Economics; Community and Leadership Development; Family Sciences; and Merchandising, Apparel and Textiles. This is truly a credit to those units for helping their students to complete their degrees; however, it does raise some questions about some of our other programs. We may need to take a hard look at this ultimate metric—graduation—for some of our undergraduate programs.

Across the review period, nearly 60% (58.8%) of our B.S. degrees went to women (Table 12), and we are, of course, pleased that women have found the College a rewarding place to study, learn and grow. The percentage of women still differs dramatically among programs; for example, FAM and MAT graduates are both over 90% female, while AEC is under 20% female and LA is under 10% female. We do have an emerging concern about the dearth of both male applicants and males who actually matriculate into our freshman cohorts of late. If this trend continues, it is clear that male graduation rates will be likely to drop and further increase the percentage of degrees awarded to women. Of course, women receiving degrees is not the issue—the problem is that young men are choosing not to come to our College. And this is not a phenomenon which is unique to our circumstances; still, we need to work on positive solutions.

Unless we recruit diverse students, and by that we mean students of all sorts of diversity, those students will not come to campus and will not have the opportunity to study toward the degrees the College offers. On the other hand, we also want to make sure that minority students who come to our College have every opportunity to succeed. One of the ultimate indicators is whether or not our graduation rates are going up for minority students. For the first three years of the review period, our minority graduation rates were approximately 9%; since that time, those rates have exceeded 10% each academic year, reaching 13.6% in 2011-12 (Table 12). So, while we have a long way to go, we are pleased to note some progress on this front. We do note that some programs are well over the average (Biosystems Engineering, 18.2%; and Family Sciences, 18.1%). On the other hand, some small programs (Forestry; Horticulture, Plant and Soil Science; and Landscape Architecture) have no identified minority students, while some larger programs have relatively modest minority percentages among their graduates (Animal Sciences, 3.4%; Natural Resources and Environmental Science, 4.3%).

Table 13 provides detailed information on the ethnic identification of our undergraduate students from 2006-2012 fall semesters. Notable progress was made in numbers of

African American students in 2008-10; since that time, our enrollment of that population has been relatively stable while our total enrollment in the College has increased. Another way to state this is that our percentages of Black students were in the 6% range in 2006 and 2007; exceeded 9% in 2008, 2009, and 2010; but was around 7.5% in 2011 and 2012. We do not wish to lose the progress which we have made. In contrast, we've continued to make steady progress in enrollments of Hispanic or Latino students—both number and percentages have climbed each year. Further, since we have begun providing (as of 2010) a category for students to self-identify as “two or more races”, those numbers have also gone up markedly.

Instructional Faculty

Instructional FTE and student/faculty ratios are shown elsewhere in this self-study (Table 14). The challenge described in this paragraph is finding ways to meet the increasing need for instruction in spite of an overall decline in faculty numbers. With state budget cuts a regular occurrence, and operating budgets already cut very thin, the unfortunate consequence is that the College administration has often had to balance the budget by taking faculty vacancies from departments. However, Dean Smith has moved strategically to help units meet their instructional needs, most notably with lecturer-level hires in both DHN (Brewer) and HMT (Day) recently to help provide for strong instruction in under-staffed programs. Another approach he has encouraged has been the conversion of service instruction in DHN to an online approach; the senior lecturer (Stephenson) managing that course has been able to provide consistently high quality instruction with TA support through an online approach.

Another key example of the Dean's approach has been to secure additional faculty support for the rapidly developing Equine Science and Management program. As that program went from zero to 239 students over the past five years, the Dean, with key input from Associate Dean for Research Cox, has been able to put together a strong instructional team from a variety of disciplinary backgrounds. Some of the instructional resources were newly acquired from the Provost.

Finally, the newly emerging budget model may provide some incentive for faculty to shift their distribution of effort toward higher instructional commitments (see below). Whether or not this is in the best interest of College students will depend on the quality of decisions made by faculty and unit-level administration.

Budget Model Challenge

The University is in the midst of adopting a dramatically different budget model. An early impact on instruction has been that student credit hour (SCH) production is coming under intense scrutiny. In fact, a pool of recurring funds was recently awarded to colleges based on their SCH growth from a baseline of the 2009-10 academic year to

the 2011-12 academic year. In the case of the College, this amounted to about \$124,000 in recurring funds available for college-level commitments. Table 15 shows SCH production by prefix for the 2009-10, 2010-11, and 2011-12 academic years. Overall, the College is offering about 40,000 SCH per academic year; however, contributions to that total range widely with major input from the NFS (now DHN), AEC, FAM, CLD, ASC, MAT, PLS, GEN, and FOR prefixes. Those 9 prefixes alone produce about 80% of the College's SCH (based on 2011-12 activity). However, the University provided an initial distribution to colleges based on SCH growth, not SCH production. As one can see from Table 15, some of our prefixes experienced substantial growth (e.g., FOR) while others had an SCH decline (FAM). In fact, in the case of FAM, that department (Family Sciences) had chosen to diminish its role in general education in order to focus more on a research mission—that decision was made with the support of the College administration. In fact, Family Sciences remains one of the most active departments in the College in terms of total SCH production; unfortunately, the metric this time was net gain in SCH. Given that the College-wide total SCH was down slightly from for 2011-12 over 2010-11, a continuation of a “growth” model for marginal funding could be a concern. A preliminary analysis of Fall 2012 SCH data (correcting for a likely earned/attempted ratio) showed the College to have nearly 900 SCH more in Fall 2012 than in Fall 2010. So, the College would stand to reap at least some benefit from the application of such a model to 2012-13 data, at least based on preliminary indications.

University wide, many programs (even colleges) are trying to come up with ways to increase their SCH. Of course, this could lead to all sorts of fiscally-driven decisions which may not well serve student interests. Dean Smith chose to support some College-level initiatives in the equine science and management and agricultural biotechnology undergraduate programs, and also provided a small amount of recurring dollars to each prefix which showed an SCH gain of at least 200 SCH over the baseline. Hopefully, the University will come to a model which provides a reasonable balance between ongoing “heavy lifting” in terms of undergraduate instruction and not merely rewarding growth.

Academic Programs Staff Resources

Current staffing for the Office of Academic Programs includes nine professionals and five part-time undergraduate students. The Associate Dean for Instruction Position (ADI; full time, administrative appointment) is a faculty position (currently occupied by Larry Grabau), and has consistently been chosen from within the College faculty. There are two Advising Resource Centers (ARC): one in Erikson Hall (EH), directed by a Student Affairs Officer III (Louise Gladstone), and another in the Agricultural Science Center (ASC), also directed by a Student Affairs Officer III (Susan Skees). Louise supervises Pam McFarland (Student Affairs Officer II), Helen Johnson (Staff Support Associate II) and a work-study student. The ADI supervises both Gladstone and Skees as well as Jamie Dunn (Student Affairs Officer III) who works in the ASC ARC, Lisa Cox (Student Affairs Coordinator), Jason Headrick (Student Affairs Officer III), and Emily Morgan (Staff Support Associate II). One undergraduate student works under the supervision of Skees; three undergraduate students work under the supervision of Cox.

Gladstone, Skees, Dunn, and McFarland together provide the “central advising” function for the College—that is, advising students who are undeclared or who come to the College in search of a major. However, they do far more than simply advise; they constitute an indispensable resource to the College’s students and faculty in helping them to navigate the rules, rites, and rituals of the academy. More specifically, these professionals assist the faculty (and academic coordinators) in keeping abreast of ever-changing curricular requirements, scheduling courses, planning for Teacher-Course evaluations, handling degree audits, arranging for graduation activities, and so much more. Additional activities of these professionals are numerous; for example, Dunn leads our efforts with the Agricultural Residential College, Dunn and Skees and McFarland have directed sections of UK 101, and Dunn and Skees will be directing sections of GEN 100 this fall semester. They provide similar “way-finding” services for all of the College’s undergraduate students. Johnson and Morgan provide support for those professionals in their respective ARCs; Morgan also provides additional financial processing support for the entire unit.

Cox’s role focuses on student scholarships (both freshmen and continuing students) and on alumni relations. In that latter role, she has extensive contact with the Office of Advancement. She also serves as advisor for the Student Council, a “consortium” of College student organizations. Headrick serves as the chief recruiter for the College, working with University recruiters, all College programs, the College Office of Diversity, and an extensive state-wide (and beyond) network of contacts to try to bring in an appropriately diverse cohort of students each academic season. He advises the Agriculture Ambassadors, a carefully selected group of students from across the College landscape who represent the College at many different alumni functions, and

interact with prospective students when they come to visit. This is also an exceptionally good leadership development activity for these Ambassadors.

The somewhat controversial decision was made by the ADI to replace an outgoing Staff Support Associate (not shown above) with an Academic Coordinator charged with college-level support of career development activities for students from all College majors, as well as support for the new College initiative of an Academic Enrichment Experience (AEE; anticipated to be instituted as of fall 2013). For an individual student, that AEE could be an internship, a research project, an Education Abroad, or various other sorts of creative opportunities. Each major has crafted its own mechanism(s) for meeting this college-level requirement. Since career development has been such a crying need, and since circumstances have made it very difficult to meet that need in the College for a number of years, the ADI made the difficult decision to forgo the benefits of a third Staff Support Associate in the unit in order to gain the benefits for our students. Morgan will pick up financial responsibilities and schedule coordination for the office, and will be spending approximately 8 hours per week in N6 to accommodate that change in her assignment. In order to fill in for her duties, an undergraduate will be trained to address selected parts of Morgan's assignment in N8. This arrangement will be re-assessed as 2013 proceeds in order to ensure that students' interests are not being sacrificed in order to keep the finances in order.

Options for the next position(s) in the Office of Academic Programs could include: a second recruiting position (having a senior-level person on campus and a newer person traveling more extensively); filling out a career development position to a full-time role, while granting additional responsibility to the Academic Coordinator in other areas; or evaluating a high level staff assistant role to work directly with the Associate Dean for Instruction. A related priority may be to determine how to provide maintenance for an increased number of smart classrooms (see classroom improvement project details in instructional facilities section below) as current staffing either at the College or departmental levels may not be adequate to meet that need. Further expansion of the Academic Coordinator program to additional departments may be a more immediate priority over adding more staff in Academic Programs.

There are both merits and problems associated with the physical locations and spaces to which the Office of Academic Programs is assigned. Since approximately 900 of our students are in majors that are served through the EH ARC, while the remainder are served through the ASC ARC, it is clearly to our students' benefit to have two such centers. There are, unfortunately, some problems which result from this configuration. No matter how diligent our staff are about reminding cross-campus advisors where to send students for changes to majors in the College, some students who transfer still wind up in the wrong ARC and have to trek across campus to the other one. There are also some other issues; for example, College identity is not fully espoused by all to the

same extent. Attendance by students (and faculty) from majors advised through the EH ARC (that would be the School of Human Environmental Sciences) have had relatively modest attendance rates at key College-wide events (for example, Round-up) as their identity appears to be localized in the School rather than in the College. On the other hand, many in majors advised through the ARC in ASC still refer to that entity as the “College of Agriculture Advising Resource Center” when in fact it is one of two ARCs belonging to the College. Further, there are some issues with the provision of natural interactions between staff in the Office of Academic Programs due to physical separation, even between adjacent offices. Desirable interactions would include conversations between advising staff and recruiting and scholarship staff about directions for the present, dreams for the future. Such conversations have proven very difficult to generate, perhaps in part due to the physical separation of offices. A further consideration might be that there are, in fact, some resources which could be provided to College students at either ARC, and it would be entirely plausible that a student whose major was associated with the alternate ARC would stop by to collect said resources at the alternate ARC.

Academic Coordinators

In 2005, Esther Fleming took on a 0.25 time role in academic support for the ABT program; since 2008, she has devoted half of her time to this role. Fleming was a research analyst in Bruce Webb’s laboratory, and he was able to free up half of her time for this role, and Dean Smith was able to free up the funds to support that role. While this position is not full-time and was not then and is not now named as an Academic Coordinator, it is considered as the first of the expanding series of Academic Coordinator positions. Fleming works with entering freshmen in the ABT program, from assisting with advising and ABT 101 to maintaining in-house records on their plans; she is an especially valuable “bridge” resource as they adjust to college life. Since that time, Laura Lhotka was hired in Forestry in 2010; her position focuses on recruiting, retention, and alumni relations. Geri Philpott (Natural Resources and Environmental Science; hired in 2011) fills a somewhat different role in this multi-disciplinary program. She was hired to focus on recruiting, but also to provide some instruction for the NRES program. Liz Combs (Dietetics and Human Nutrition; started in 2011) advises all new students for both Human Nutrition and Dietetics (both freshmen and transfers) and teaches courses as well. Meanwhile, Ann Leed (Animal Sciences) began in 2012 (advising new Animal Sciences students, two classes each semester, recruiting) and Kristen Wilson (Equine Science and Management) started in early 2013 (advising, recruiting, alumni relations, and evaluation/assessment).

Several other programs have expressed an interest in adding an Academic Coordinator; providing financial resources to meet those interests have been based on a

collaboration of College and departmental resources in past hires. Plant and Soil Sciences is actively recruiting for an Academic Coordinator.

About two years ago, there was a plan to increase the number of advising staff in the ARC's; obviously, the advent and extent of the Academic Coordinator program has pushed that plan aside. For example, taken together, Combs, Leed, and Wilson will advise over 500 students, and that will take an enormous burden off advising faculty in their programs. Still, it remains important to find ways to optimize the quality of communications between the Academic Coordinators and the Office of Academic Programs. To that end, Dean Smith has created a "dashed line" reporting structure between the Associate Dean for Instruction and each of the Academic Coordinators. Regular meetings occurred during the 2011-12 academic year, and will resume shortly (at the insistence of the Academic Coordinators—they see the value!).

Assessment of Student Learning Outcomes

In the summer of 2009, the University of Kentucky had a "light-bulb" moment—we realized that SACSCOC was coming to visit us in 2012-13. Unfortunately, we had done very little as an institution to prepare for that moment, most notably in the area of assessment of student learning outcomes. This was especially problematic, as the institution had been chided by SACS in 2002 for doing a less-than-stellar job on assessment of student learning.

Rapidly gearing up, the College followed institution-wide mandates; every undergraduate and graduate program produced student learning outcomes (SLOs) during the fall of 2009 (examples of two undergraduate and two graduate programs' SLOs are shown in Table 3.16 below. Each unit also developed an assessment plan, which was based on a curricular map. Curricular maps showed which how core courses help each program sequentially meet each of their SLOs were also developed; one example of a curricular map is shown below (Table 3.17). Each year, each of the programs developed an "Improvement Action Plan" (IAP). Those plans described the methods the program used to assess the SLOs they had chosen to assess for that particular academic year, report and then interpret the results, and finally describe the consensus of faculty plans on how to proceed to facilitate enhanced student learning. At the end of each academic year, the unit faculty are to go back and reflect on their progress toward that plan, and prepare a reflective statement.

Faculty buy-in to this assessment process has been variable. One unit (Forestry) received "gold stars" for the high quality of both its BS and MS IAPs. Several other units were consistently well-rated as highly compliant with the expectations of both external and internal reviewers. Meanwhile, some units produced essentially no assessment materials in the first year, and provided marginal reports for subsequent

years. Outcome of the SACSCOC report is currently pending a site visit in early April of 2013. Academic Programs hopes that this effort can settle down to a routine investment which can produce valuable results for the faculty of each program, without frenetic repetitions of reporting and perpetual re-writing of IAPs.

Instructional Facilities

On campus alone, we have 29 classrooms or laboratory facilities which are utilized for our students (Table 3.18). There has been some lack of clarity about which units are responsible for the maintenance and/or renovation of such instructional facilities—this is a particularly troublesome issue during times of revenue shortfalls and increasing enrollments. This office has worked with Gus Miller of the Provost's Office toward two shared goals: i) clarity on responsibility for this work, and ii) improved communications about prioritization of rooms for renovations. On a related note, funds accumulated in a College-level course fee account are being directed for improvements in classrooms identified as College responsibilities. That work is anticipated to be done during the summers of 2013 and 2014.

Note that one unintended consequence of classroom renovation can be a reduction in room capacity. For example, N12 Agricultural Science Center previously had a room capacity of 70 students; however, once it was renovated in 2012, its capacity fell to 48 students (due to a fire exit issue). On a similar note, Erikson 308 desperately needs to have a similar floor to ceiling renovation—but such a renovation would require one of two presently impossible choices: i) a reduction of seating capacity from 70 to 48, or ii) the construction of an exterior fire escape, estimated to cost on the order of \$300,000.

Provost-level renovation is expected to continue at a pace of about one room (or possibly two rooms) per summer. The current campus-wide budget for such renovations is approximately \$1,000,000, making upgrades in A100 (Seay Auditorium) or Erikson 308 (fire escape issue) unlikely due in the foreseeable future. Garrigus 109 has been identified for renovation during summer, 2013. Other classrooms which have been mentioned for 2014 include Garrigus 108 and Cooper 220. Other Provost-responsibility rooms include N10 and S221 Agricultural Science Center, 203 Erikson, and B52 Garrigus. The College is hoping to establish a timeline for Provost renovation of all of the above rooms which are denoted as Provost responsibility.

The College has worked on classroom renovation in recent years, including intensive efforts in N11 Agricultural Science Center (preparing this laboratory space for introductory animal sciences courses), GH 12 (to be used in PLS 104 and 240, courses newly connected with UK Core), and the joint Forestry/NRES classroom at Robinson Forest. With clarity on College responsibility, and the availability of funds to begin working on classroom renovations, a classroom renovation program is currently under

review. Spaces under consideration include A5 and N9 Agricultural Science Center (seminar room and soils lab, respectively), 227 and 246 Barnhart (intensively utilized classroom and computer classroom respectively), 109 Cooper (mostly Forestry classes), and 104, 105, and 106 Garrigus (laboratory rooms). While the availability of funds will not permit the floor-to-ceiling renovations done by the Provost's Office, the College hopes to make strategic investments to improve our instructional capabilities in each of these spaces.

Adherence to Instructional Policies

The Office of Academic Programs is subject to a wide array of rules and regulations intended to assure equitable treatment of all students. This section will focus on the Office's procedures in place to ensure adherence to such policies, for example through curricular approval processes, advising and orientation, course equivalencies, course substitutions, distance learning and degree audits.

Curricular approvals, both of courses and of programs are faculty-driven processes in the College. Rules of procedure are going through a revision at the time of this writing; the basic format is that an Undergraduate Curriculum Committee (UCC) deals with courses and programs at the undergraduate level, while a Graduate Curriculum Committee (GCC) deals with courses and programs at the graduate level. Courses at the 400G or 500 level are bi-level courses and are vetted by both committees. Membership on the committees is drawn from Directors of Undergraduate Studies (DUS's) for the UCC; the model is a "two-years-on, one-year-off" rotation. With 18 undergraduate programs in the College, that results in 12 DUS's on the UCC at any given time. An undergraduate student member is chosen from among nominees made by the entire cohort of DUS's. Both ARC Directors are also ex officio members. The UCC is chaired by the ADI, who does not vote in its deliberations. The GCC's membership is similarly formed from the aggregate of the group of 12 Directors of Graduate Studies, with the same rotational plan. A graduate student is chosen by a similar mechanism, and the ARC Directors, along with the Associate Dean for Research are also ex officio members. The GCC is also chaired by the ADI, who does not vote in its deliberations.

Advising and orientation sessions are managed through the two ARCs. Prior to the start of a major advising window (summer, fall, spring) the ARC directors coordinate an advising meeting for all active College advisors to address any changes since the last advising round, as well as to address any areas of particular concern. These training sessions are especially important because many College programs send different faculty advisors to advising sessions, so it is not certain that faculty are sharing knowledge about advising changes. For summer advising, each advisor receives a binder with color-coded pages to help her or him keep track of the sometimes mind-

boggling array of changes to keep straight. Once advisors are well-trained, advising sessions can commence. The first summer advising sessions actually take place on Merit Weekends in March—it is then that high ACT or Governor’s Scholars freshman students are invited to come to campus, learn about their majors, and register for classes. The remainder of freshmen registration takes place during the summer as two-day sessions with registration per se on day two. The College typically takes part in about 10-12 of those summer sessions. Across the rest of the academic calendar, we have several key times at which ongoing or new (especially transfer) students can register. Just before each term (fall, winter intersession, spring, summer), we have registration opportunities for all students and advisors from all undergraduate programs are standing ready to assist. During two primary advising windows in the fall and spring, students sign up for appointments with their advisors and meet with them (typically in their offices) to discuss class schedules, program progress, and professional plans. These are generally considered to be the “core” advising sessions for most of our students.

Most course equivalencies are now automated; that is, they are pre-set through decisions that have been carefully evaluated by content experts in the past. As a result, when a new student enters the University, most transfer credits are automatically read as particular courses at the University of Kentucky. In those cases in which a course does not equate to an existing course, or in which a student believes that a course which he/she has taken previously should count for a given UK course, it is the student’s responsibility to procure a copy of the course syllabus and any other pertinent materials and provide them to the College. The College will then compare them to the targeted course (if possible, through request of the course’s instructor) and then attempt to make a fair determination on whether the prior course was sufficiently equivalent to count in place of the UK course.

On a similar note, we actively discourage our students from substituting one course for another. Circumstances under which such substitutions are permitted are limited and specific. For example, if a course is only taught once per year, and conflicts with another course that a student needs to graduate, it would be normal procedure for the student to have a substitution request honored. However, that request must follow our procedure, namely a form comes from the student’s advisor, signed by both the student and the advisor, indicating what course would be substituted for which other course, and providing the rationale for the substitution. These forms are submitted to the degree audit persons in each ARC; if those individuals have any doubts about the rationale, they bring the form to the ADI for review. Appropriate substitutions would include: course of similar or greater depth, course of same or higher rigor, course more closely related to a student’s specialty support interests. Likely reasons for rejection of such requests would include a course substitution form which did not include a

rationale, lacked an advisor's signature, or asked for a 100 level course to substitute for a 400 level one.

In some circles, online learning has a reputation for less than the best quality. In the College, we believe that one key approach to assuring high quality online instruction is to place excellent face-to-face instructors in these roles. In one case, a course went from quite marginal in an online context to an incredible success in an online format, simply by changing the instructor. In another case, a top-notch instructor pioneered online instruction in his department, and has feasted in that environment—his students obviously have enjoyed his contributions in that arena.

Our degree audit process benefits from two “angles”—our very meticulous degree audit personnel and the availability of APEX, which helps students and advisors maintain a good focus on where they stand with respect to degree completion. First, APEX: this software allows students the chance to check out their current status from anywhere they can get connected—required courses which they have finished show up with green checks, courses which are “in progress” show up with light green checks, and courses which they have yet to start show up with red checks. This is a dramatic, high visibility way for students (and advisors) to see where a student has been and where she still needs to go to complete her degree. Second, the astute human eyes must also come into play. There is so much going on with our students in terms of changes between curricula—from the old University Studies to the new UK Core, from one version of a particular program to another very slightly different version of that program. Then there are course substitutions—sometimes which are only intentions made rather than promises kept. (The only way for a course substitution to be honored is if the form is fully completed.) And there are Education Abroad activities—sometimes a student cannot actually follow through with all (or even any!) of the courses that he negotiated with his advisor on the academic approval form. Seniors who expect to graduate are strongly encouraged to get into their respective ARC for a senior audit during the semester prior to their final semester—that gives them a chance to alter their registration if they need to do so. The degree audit professionals have to be very tough and disciplined, expecting students to have taken all of the required courses. On the other hand, these professionals must be compassionate, because there are sometimes issues beyond the control of our students which have complicated their academic lives.

Student Engagement

The University of Kentucky once again participated in the National Survey of Student Engagement (NSSE) in 2012, as it had in 2001, 2003, 2005, 2007, and 2009. Students at both freshmen and senior levels were again the intended audiences. Twenty-one percent of students who were randomly chosen to receive the survey link by link by the Indiana University Center for Postsecondary Research and Planning responded

(compared with a national rate of 20%), resulting in a total of 1176 usable surveys for 2012. University of Kentucky results at both the freshman and senior levels were statistically compared with results at Carnegie peer institutions. In addition, College results were compared with University of Kentucky results (without the benefit of statistical analysis).

Table 19 shows results for all five NSSE “benchmarks of effective educational practice” for freshmen and seniors at the University of Kentucky in both 2009 and 2012. Back in 2009, UK as a whole was not generally quite similar to its Carnegie peers at the freshman level, with three benchmarks statistically not different, one positive (student-faculty interaction, and one negative). By 2012, UK as a whole had four of five freshman benchmarks significantly better than its Carnegie peers; only “enriching educational experiences” remained significantly negative compared with our Carnegie peers. At the senior level, however, the 2009 gloomy picture actually became slightly worse in 2012. The three benchmarks in which we compared unfavorably with Carnegie peers in 2009 (academic challenge, enriching educational experiences, and supportive campus environment) all remained in the unfavorable category. Meanwhile, our positive rating for student-faculty rating slipped to not different from our Carnegie peers. So, while there was cause for celebration about how the intensive investments UK has been making in improving freshman experience, there was little good news about senior engagement.

Table 20 compares the College with the University for NSSE results for the same two survey periods. Without the benefit of a statistical analysis, perhaps the strongest statement about the freshman data for 2012 might be that the College appears to have exceeded even the University’s very positive growth in providing a supportive campus environment. It is clear that the College is at least as strong as the University in the other four freshman benchmarks for 2012. With respect to the College’s seniors, it appears that there may be a trend toward lowered academic challenge compared with the University’s seniors; it seems especially disconcerting that we may have lost ground in the College in that area since 2009. On the other hand, we may have a slight advantage over the University in both active & collaborative learning and student-faculty interaction. Finally, the College is on par with the University in both of the remaining benchmarks.

We note that seniors in the College do report a fairly sharp increase in enriching educational experiences over the level in that benchmark reported by freshmen. We are hoping that the impending establishment of a required academic enrichment experience for all undergraduate programs in the College will be a positive impetus to encouraging more frequent and more impact-filled enrichment experiences across the board in our College.

Conclusions

Enrollment:

- Aim at continued steady growth overall, and especially in prioritized majors in accordance with the College strategic plan (which emphasizes the environmental/sustainability cluster and the food science major).
- Emphasize recruitment of diverse undergraduates, specifically minorities and males.

Retention and Graduation:

- Consider focusing recruitment on potential employment outcomes rather than majors.
- Emphasize recruitment to the College as a whole as part of our story to incoming students.
- Develop curricular “landings” for science-interested students who may not be initially successful with entry-level math and science coursework at UK.

Instructional Faculty:

- Continue current Dean’s vigilance to prioritize instructional needs in spite of an overall decline in faculty numbers.

Budget Model Challenge:

- Focus on the needs of our students first; where feasible, take appropriate advantage of the emerging SCH-Driven model to benefit instructional programs in the College.

Academic Programs Staff Resources:

- Once Academic Coordinators are established in their respective roles (including the new career development/academic enrichment position in Academic Programs), consider adding strength in recruitment, career development, and high-level staff assistance.

Academic Coordinators:

- Consider additional Academic Coordinator positions; strengthen ties among these professionals and the Office of Academic Programs, as well as with other University-level units that will help them in their roles.

Assessment of Student Learning Outcomes:

- Stabilize ongoing assessment efforts at a manageable, yet productive level after the April, 2013 SACSCOC visit.

Instructional Facilities:

- Stay on top of instructional facilities, both in terms of renovation and maintenance; may require some role adjustments for support staff in the College and/or at departmental levels.

Adherence to Instructional Policies:

- Continue to maintain high level of adherence to all program, College, and University instructional policies, with careful documentation for any exceptions granted.

Student Engagement:

- Work with the University to uncover ways to enhance engagement of seniors.
- Implement the new college-level Academic Enrichment Experience, as well as developing clear procedures to ensure that individual experiences are of the highest possible quality.

Table 1. Enrollment trends for undergraduate and graduate students and post-doctoral scholars for academic years 2007-08 through 2012-13, College of Agriculture.

Student cohort	Academic Year					
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Undergraduate	2096	2130	2185	2372	2446	2573
Masters	219	207	206	211	218	239
Doctoral	175	178	188	187	198	199
<i>[Total Graduate</i>	<i>394</i>	<i>385</i>	<i>394</i>	<i>398</i>	<i>416</i>	<i>438]</i>
Post-doctoral	52	62	63	72	48	42
Total	2542	2577	2642	2842	2910	3053

Table 2. Enrollment trends for undergraduate students in the food, animal and biotechnology “cluster” of majors.

Major	Academic Year					
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Human Nutrition	107	138	152	191	245	283
Animal Sciences	253	236	227	225	238	260
Equine Sci & Mgmt	24	65	121	168	219	239
Dietetics	175	174	170	192	201	206
Ag. Biotech.	167	174	167	131	158	149
Food Science	21	14	18	26	29	34
Cluster totals	747	801	855	933	1090	1171

Table 3. Enrollment trends for undergraduate students in the social science “cluster” of majors.

Major	Academic Year					
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Ag. Economics	201	186	228	244	246	273
Comm. Lead. Dev.	151	143	181	208	193	180
Merch., App. Tex.	241	220	206	208	175	163
Family Sciences	142	138	146	169	149	141
Hos. Mgmt. Tour.	176	144	141	139	117	130
CTE—totals	31	62	73	64	45	44
<i>CTE—FCS-Ed</i>	11	16	17	11	11	8
<i>CTE—Ag-Ed</i>	20	46	56	53	34	36
Cluster totals	942	893	975	1032	925	931

Table 4. Enrollment trends for undergraduate students in the environmental/ sustainability “cluster” of majors.

Major	Academic Year					
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Biosystems Eng.	67	61	64	95	108	120
Nat. Res. Env. Sci.	58	63	65	78	79	88
Forestry	41	52	47	59	69	74
Land. Arch.	100	92	74	77	73	67
Hort. Pl. Soil Sci.	73	63	44	41	31	43
Sust. Ag.	6	11	11	21	25	36
Cluster totals	345	342	305	371	385	428

Table 5. College of Agriculture Enrollment, Retention by Cohort

Freshman Cohort	COA Original Enrollment	COA 2nd Year Retention	COA 3rd Year Retention	UK 2nd Year Retention	UK 3rd Year Retention	COA 2nd Year Retention	COA 3rd Year Retention	UK 2nd Year Retention	UK 3rd Year Retention
	#	#	#	#	#	%	%	%	%
Fall 2004	236	175	137	195	176	74.2%	58.1%	82.6%	74.6%
Fall 2005	237	154	120	181	164	65.0%	50.6%	76.4%	69.2%
Fall 2006	288	192	156	212	190	66.7%	54.2%	73.6%	66.0%
Fall 2007	258	193	153	211	186	74.8%	59.3%	81.8%	72.1%
Fall 2008	349	254	199	287	253	72.8%	57.0%	82.2%	72.5%
Fall 2009	283	183	156	225	202	64.7%	55.1%	79.5%	71.4%
Fall 2010	382	266	208	315	281	69.6%	54.5%	82.5%	73.6%
Fall 2004- Fall 2010	2033	1417	1129	1626	1452	69.7%	55.5%	80.0%	71.4%

Table 6. College of Agriculture Retention by Original Major

Original Major	Fall 1 Major	Fall 2 Still in Major	Fall 3 Still in Major	Fall 2 Still in COA	Fall 3 Still in COA	Fall 2 Still in UK	Fall 3 Still in UK
Agricultural Biotechnology	284	170	107	200	155	234	210
Agricultural Economics	91	64	48	70	55	74	64
Animal Sciences	490	292	191	341	267	375	326
Biosystems Engineering	134	71	59	88	81	113	112
Comm. & Leadership Dev.	59	42	30	47	35	51	45
Career & Technical Education	68	48	38	57	47	58	49
Equine Science & Management	133	102	74	105	84	114	100
Family Sciences	14	7	5	7	5	9	9
Forestry	50	29	22	31	27	33	32
Food Science	23	16	12	18	14	19	16
Human Nutrition	106	49	32	63	48	89	77
Landscape Architecture	67	51	42	56	46	60	53
Merchandising, Apparel & Textiles	169	116	90	118	94	140	126
Dietetics	131	78	54	85	64	109	95
Hospitality Mgmt. & Tourism	81	50	39	51	45	58	57
Natural Res. & Env. Science	35	19	13	21	18	24	22
Horticulture, Plant & Soil Sciences	41	19	11	24	21	25	22
Undeclared Agriculture	54	24	3	33	21	39	35
Ag-Individualized	3	2	2	2	2	2	2
Across All Majors	2033	1249	872	1417	1129	1626	1452

Table 7. College of Agriculture Freshman Retention % by Major

Original Major	Total Enrollment 2004-2010	Fall 2 Retention in Major	Fall 3 Retention in Major	Fall 2 Retention in COA	Fall 3 Retention in COA	Fall 2 Retention in UK	Fall 3 Retention in UK
	#	%	%	%	%	%	%
Agricultural Biotechnology	284	59.9%	37.7%	70.4%	54.6%	82.4%	73.9%
Agricultural Economics	91	70.3%	52.7%	76.9%	60.4%	81.3%	70.3%
Animal Sciences	490	59.6%	39.0%	69.6%	54.5%	76.5%	66.5%
Biosystems Engineering	134	53.0%	44.0%	65.7%	60.4%	84.3%	83.6%
Comm. & Leadership Dev.	59	71.2%	50.8%	79.7%	59.3%	86.4%	76.3%
Career & Technical Education	68	70.6%	55.9%	83.8%	69.1%	85.3%	72.1%
Equine Science & Mgmt.	133	76.7%	55.6%	78.9%	63.2%	85.7%	75.2%
Family Sciences	14	50.0%	35.7%	50.0%	35.7%	64.3%	64.3%
Forestry	50	58.0%	44.0%	62.0%	54.0%	66.0%	64.0%
Food Science	23	69.6%	52.2%	78.3%	60.9%	82.6%	69.6%
Human Nutrition	106	46.2%	30.2%	59.4%	45.3%	84.0%	72.6%
Landscape Architecture	67	76.1%	62.7%	83.6%	68.7%	89.6%	79.1%
Merch., Apparel & Textiles	169	68.6%	53.3%	69.8%	55.6%	82.8%	74.6%
Dietetics	131	59.5%	41.2%	64.9%	48.9%	83.2%	72.5%
Hospitality Mgmt. & Tourism	81	61.7%	48.1%	63.0%	55.6%	71.6%	70.4%
Natural Res. & Env. Science	35	54.3%	37.1%	60.0%	51.4%	68.6%	62.9%
Hort., Plant & Soil Sciences	41	46.3%	26.8%	58.5%	51.2%	61.0%	53.7%
Undeclared Agriculture	54	44.4%	5.6%	61.1%	38.9%	72.2%	64.8%
Ag-Individualized	3	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Across All Majors	2033	61.4%	42.9%	69.7%	55.5%	80.0%	71.4%

Table 8. Six-year graduation rates for entering first-time college-going freshmen cohorts, fall 2002 through fall 2006, College compared with UK.

Cohort	College		University	
	n	Six-year grad. rate (%)	n	Six-year grad. rate (%)
2002	236	60.0	3704	57.7
2003	252	62.3	3683	59.5
2004	236	64.0	3935	58.2
2005	237	63.7	3824	59.2
2006	288	60.5	4118	57.6
Totals	1249	62.0	19264	58.4

Table 9. High school GPA, ACT composite and first year UK GPA of first-time, full-time freshmen students for the College and the University over 13 most recent cohorts.

Cohort ¹	College of Agriculture			University of Kentucky		
	HS	ACT	First year	HS	ACT	First year
	GPA	Comp.	UK GPA	GPA	Comp.	UK GPA
2002	3.58	23.71	2.68	3.50	23.99	2.71
2003	3.63	24.70	2.75	3.57	24.49	2.76
2004	3.63	24.54	2.78	3.53	24.37	2.71
2005	3.61	24.83	2.60	3.55	24.75	2.75
2006	3.51	23.60	2.50	3.48	24.01	2.60
2007	3.53	24.06	2.64	3.48	24.31	2.76
2008	3.53	23.89	2.67	3.52	24.40	2.75
2009	3.47	23.84	2.72	3.52	24.68	2.79
2010	3.63	24.73	2.82	3.60	25.20	2.87
2011	3.74	26.06	2.99	3.63	25.40	2.89
2012	3.77	26.05		3.63	25.47	

¹ Cohorts are shown starting in 2002 for this data set to provide background for the six-year graduation data presented above.

Table 10. Numbers of B.S., M.S., and Ph.D. graduates for academic years 2006-07 through 2011-12.

Level	Academic Year					
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
B.S.	489	547	513	484	537	533
M.S.	77	58	73	56	59	67
Ph.D.	33	19	24	29	27	39
Total	599	624	610	569	623	639

Table 11. Undergraduate degree production (B.S. degrees) by units with such programs during most recently completed academic year (2011-12).

Unit	n
Dietetics and Human Nutrition ²	123
Community and Leadership Development	83
Agricultural Economics	79
Family Sciences	59
Animal and Food Sciences ³	57
Merchandising, Apparel and Textiles	44
Agricultural Biotechnology	25
Natural Resources and Environmental Science	22
Landscape Architecture	11
Biosystems Engineering	9
Forestry	9
Horticulture and Plant and Soil Science ⁴	7
Agriculture—Individualized	5
Total	533

² Note that this Department included three majors in this reporting year: Dietetics, Hospitality Management and Tourism, and Human Nutrition.

³ Note that this Department includes three majors in their data set: Animal Sciences, Food Science, and Equine Science and Management.

⁴ Note that these two Departments share the program titled Horticulture, Plant and Soil Science.

Table 12. Longitudinal review of gender and diversity progress as measured by graduation rates, B.S. level, academic years 2006-07 through 2011-12.

Level	Academic Year					
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Women	271	311	302	306	315	321
Men	218	236	211	178	222	212
% Women Grads	55.4	56.9	58.9	63.2	58.7	60.2
Minorities	45	50	48	61	70	58
Majority	444	497	465	423	458	475
% Minority Grads	9.2	9.1	9.4	12.6	13.0	10.8
Total B.S. degrees	489	547	513	484	537	533

Table 13. Longitudinal view of progress in enrollment of diverse undergraduate students by their own ethnic identification, 2006-2012 fall semesters.

<u>Ethnic Identification</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
American Indian or Alaskan Native, Non-Hispanic Only	3	5	4	5	2	3	5
Asian, Non-Hispanic Only	28	33	37	27	28	39	49
Black, Non-Hispanic Only	131	143	193	209	213	184	191
Hispanic or Latino, Regardless of Race	7	10	17	25	36	46	55
Native Hawaiian or Other Pacific Islander, Non-Hispanic Only	0	0	0	0	0	0	2
Nonresident Alien	9	9	17	19	25	27	35
Race and Ethnicity Unknown	37	46	37	39	61	70	77
Two or More Races	0	0	0	0	10	31	48
White, Non-Hispanic Only	1892	1850	1825	1861	1997	2046	2111
Totals	2107	2096	2130	2185	2372	2446	2573

Table 14. Instructional FTE Student/Faculty Ratios

College of Agriculture	Majors	Faculty	Ratios
Academic Year			FTE S:1F
<i>2011-2012</i>	2,862	254	14.9
<i>2010-2011</i>	2,770	256	14.1
<i>2009-2010</i>	2,579	265	12.5
<i>2008-2009</i>	2,515	266	12.3
<i>2007-2008</i>	2,490	263	11.9
<i>2006-2007</i>	2,509	261	11.9
<i>2005-2006</i>	2,369	257	11.3
<i>2004-2005</i>	2,221	264	10.9
<i>2003-2004</i>	2,337	274	10.7

Source: University of Kentucky Office of Institutional Effectiveness
<http://www.uky.edu/IRPE/colleges/summary/ag12.pdf>

Table 15. Student credit hours (SCH) for academic years 2009-10 through 2011-12, by prefix.

Student Credit Hours in each Academic Year				
Prefix ⁵	2009-10	2010-11	2011-12	Difference ⁶
AEC	3661	4464	4125	+464
ABT	396	451	387	-9
EQM	355	535	590	+235
GEN	1641	1848	2054	+413
SAG	182	157	251	+69
NRE/NRC	389	470	441	+52
ASC	2951	2971	3317	+366
FSC	387	485	594	+207
BAE and AEN	906	1060	976	+70
AED	675	614	394	-281
CLD	3542	3659	3476	-66
ENT	876	923	944	+68
FAM	5982	5095	3808	-2174
FOR	1001	1631	2013	+1012
LA	1329	1268	1617	+288
MAT	3045	3013	2880	-165
HMT	1308	1242	975	-333
NFS/DHN	7157	7516	8022	+865
PPA	353	184	221	-132
PLS	2423	2418	2479	+56
FCS	216	100	137	-79
HES	711	738	796	+85
VS	255	169	278	-23
Total	39741	41011	40775	+1034

⁵ Note that this table is arranged in order by departmental sponsor, and so the prefixes are not arranged in alphabetical order.

⁶ Difference was calculated by the Provost's Budget Office at the College level as 2011-12 SCH less 2009-10 SCH.

Table 16. Student learning outcomes for selected undergraduate and graduate programs.

Agricultural Biotechnology (Undergraduate) :

1. Acquire Knowledge: Agricultural Biotechnology graduates will acquire knowledge about the range of approaches to manipulate and improve plants, animals and microorganisms.
2. Interpret & Evaluate: Agricultural Biotechnology graduates will demonstrate the ability to interpret and evaluate modern biotechnology approaches to the manipulation and improvement of plants, animals, microorganisms, and the control of agricultural pests and diseases.
3. Relationship: Agricultural Biotechnology graduates will evaluate how their experience in the Agricultural Biotechnology program has influenced their outlook on the relationship between society and biotechnology, and how their personal philosophies and values have been influenced as a consequence of the program.
4. Communicate about Research: ABT students will demonstrate their ability to communicate about science via oral presentations and written papers.

Family Sciences (Undergraduate):

1. Family Advocacy: Demonstrate, design and evaluate strategies to advocate for children and families in various settings (e.g. schools, legal systems, and health care).
2. Outreach: Demonstrate, apply and evaluate appropriate practices and skills in developing educational experiences and providing services at the individual, family and/or community level, recognizing the influences of cultural experiences and diversity.
3. Outreach Ethics: Demonstrate skills, strategies, and professional ethical practices used by family scientists in helping relationships.
4. Research: Demonstrate the application of research skills to solve problems and critique research in Human Development and Family Relations.
5. Resources/Finances: Demonstrate skill in applying family economics and management tools, principles, and analyzing their impact on the well-being of families across the major transitions of the family life course.
6. Development Individual and Family Development: Demonstrate the ability to apply and analyze Human Development and Family Systems principles and processes across the life course.

Forestry (Graduate, MS):

1. Define Science: With regard to the breadth of issues that exist in forestry and other renewable natural resource professions, graduates will be able to define science and distinguish it from non-science.
2. Find & Evaluate Information: With regard to the breadth of issues that exist in forestry and other renewable natural resource professions, graduates will be able to find, synthesize, and evaluate conclusions and evidence reported in a variety of sources.
3. Communication: With regard to the breadth of issues that exist in forestry and other renewable natural resource professions, graduates will be able to demonstrate the ability to communicate information effectively in oral/visual presentations and in writing.

4. Generate Knowledge: With regard to the breadth of issues that exist in forestry and other renewable natural resource professions, graduates will be able to employ appropriate methods to generate new knowledge.

Integrated Plant and Soil Science (Graduate, PhD):

1. Knowledge: Will have acquired an extensive knowledge of the sciences and technology that support research, education, and technological innovation in plant, soil, and environmental sciences.

2. Skills: Will be conversant with the literature, current concepts, and experimental and analytical methods that support research, teaching, and technological innovation in plant, soil, and environmental sciences, and in their application to agriculture and the environment.

3. Communication: Will have acquired skills in critical and analytical thinking and in communication skills that may be applied to research, education, industry, government, and public service.

4. Professionalism: Will have acquired those elements of professionalism necessary for rewarding and developing careers in plant, soil, and environmental sciences in research, education, production agriculture, agribusiness, government, and public service.

Table 17. Example of curricular map—Natural Resources and Environmental Science undergraduate program.

Learning Outcomes Curriculum Map Natural Resources and Environmental Sciences (Version – October 12, 2009)		Learning Outcome 1	Learning Outcome 2	Learning Outcome 3	Learning Outcome 4	Learning Outcome 5
		<i>...apply chemical, biological, & physical systems principles...</i>	<i>...apply human systems principles...</i>	<i>...demonstrate the safe & proper use of data collection techniques & methods...</i>	<i>...effectively communicate natural resource & environmental issues...</i>	<i>...ability to draw conclusions & make recommendations...</i>
Pre-major Requirements	BIO 150 Principles of Biology I	Introduced	----	----	----	Introduced
	BIO 152 Principles of Biology II	Introduced	----	----	----	Introduced
	CHE 105 General College Chemistry I	Introduced	----	----	----	Introduced
	CHE 107 General College Chemistry II	Introduced	----	----	----	Introduced
	CHE 111 Laboratory to Accompany General Chemistry I	Introduced	----	Introduced	Introduced	Introduced
	CHE 113 Laboratory to Accompany General Chemistry II	Introduced	----	Introduced	Introduced	Introduced
	ECO 201 Principles in Economics I	----	Introduced	----	----	Introduced
	GEN 100 Issues in Agriculture	----	Introduced	Introduced	Introduced	Introduced
	GLY 220 Principles of Physical Geology	Introduced	----	----	----	Introduced
	MA 123 Elementary Calculus and Its Applications	----	----	----	----	Introduced
	STA 291 Statistical Method	----	----	Introduced	----	Introduced
Major Requirements	FOR 230 Conservation Biology	Emphasized	Introduced / Emphasized	----	Emphasized	Emphasized
	NRE 301 Natural Resources and Environmental Science	Emphasized	Introduced / Emphasized	----	Introduced / Emphasized	Emphasized
	FOR 240 Forestry and Natural Resource Ethics	----	Introduced / Emphasized	----	Emphasized	Emphasized
	PLS 366 Fundamentals of Soil Science	Emphasized	----	Emphasized	Emphasized	Emphasized
	NRE 320 Natural Resource and Environmental Analysis	Emphasized	Introduced	Emphasized	Introduced	Emphasized
	FOR 325 Economic Botany: Plants and Human Affairs	Emphasized	Introduced / Emphasized	----	Emphasized	Emphasized
	FOR 340 Forest Ecology	Emphasized / Reinforced	----	Emphasized	Emphasized	Emphasized
	NRE 555 Geographic Information Systems and Landscape Analysis	----	----	Introduced / Emphasized	Emphasized	Emphasized

AEC 424 Principles of Environmental Law	----	Introduced / Emphasized	----	Emphasized	Reinforced
NRE 381 Natural Resource and Environmental Policy Analysis	----	Introduced	Emphasized	Emphasized	Emphasized
AEC 445G Introduction to Resource and Environmental Economics	----	Introduced	Emphasized	Emphasized	Emphasized / Reinforced
NRE 395 Independent Study in Natural Resources and Environmental Science	<i>varies</i>	<i>varies</i>	<i>varies</i>	Emphasized	<i>varies</i>
NRE 399 Experiential Ed. in Natural Resources and Environmental Science	<i>varies</i>	<i>varies</i>	<i>varies</i>	Emphasized	<i>varies</i>
FOR 460 Forest Hydrology and Watershed Management	Emphasized / Reinforced	Emphasized	Emphasized	Reinforced	Reinforced
NRE 471 Senior Problem in Natural Resources and Environmental Science	Reinforced	Reinforced	Reinforced	Reinforced	Reinforced

Source:

Norfolk State University – Curriculum Mapping Process Steps (Source: Site Accessed 8/31/09

http://eknowledgediscovery.com/yahoo_site_admin/assets/docs/CurriculumMappingProcess.40174545.pdf)

“Introduced - STUDENTS ARE INTRODUCED TO CONTENT/SKILL. Students are not expected to be familiar with the content or skill at the collegiate or graduate level. Instruction and learning activities focus on basic knowledge, skills, and/or competencies and entry-level complexity.”

“Emphasized - THE CONTENT / SKILL IS EMPHASIZED AND TAUGHT IN DEPTH. Students are expected to possess a basic level of knowledge and familiarity with the content or skills at the collegiate or graduate level. Instruction and learning activities concentrate on enhancing and strengthening knowledge, skills, and expanding complexity.”

“Reinforced - THE CONTENT/SKILL IS REINFORCED WITH ADDITIONAL EXPOSURE TO THE INFORMATION. Students are expected to possess a strong foundation in the knowledge, skill, or competency at the collegiate or graduate level. Instructional and learning activities continue to build upon previous competencies and increased complexity.”

Table 18. On-campus instructional classrooms, capacities ownership, status, and plans.

Building	Room	Capacity	Ownership	Status	Plans
Ag Sci Center	A5	14	College	Has blackboard	under review
Ag Sci Center	A6	24	Provost	Renovated 2011	Status quo
Ag Sci Center	A7	70	Provost	Renovated 2011	Residuals.
Ag Sci Center	A100	497	Provost	Projection good	Update?
Ag Sci Center	N9	16	College	needs update	under review
Ag Sci Center	N10	40	Provost	needs renovation	on list
Ag Sci Center	N11	32	College	Nearly finished	status quo
Ag Sci Center	N12	48	Provost	Renovated 2012	status quo
Ag Sci Center	S221	45	Provost	needs renovation	on list
Ag Sci Center	N320	31	Provost	Renovated 2012	on list
Barnhart	227	45	Provost ⁷	very heavy use	under review
Barnhart	246	28	College	computers aging	under review
Cooper	101	30	Provost	renovated	status quo
Cooper	109	36	College ⁸	needs update	under review
Cooper	113	67	Provost	renovated	status quo
Cooper	212	37	Provost	renovated	status quo
Cooper	220	20	Provost ⁹	renovate 2014?	On list
Erikson	202	36	DHN	??	??
Erikson	203	80	Provost	??	??
Erikson	304	24	MAT	renovated 2012	status quo
Erikson	307	48	Provost	renovated 2012	status quo
Erikson	308	70	Provost	needs renovation	fire escape?
Garrigus	B52	125	Provost	needs renovation	??
Garrigus	104	24	College	Needs renovation	under review
Garrigus	105	24	College	Needs renovation	under review
Garrigus	106	36	College	Needs renovation	under review
Garrigus	108	32	Provost	Renovate 2014?	On list
Garrigus	109	56	Provost	Renovate 2013	on list
Greenhouse	GH12	20	College	Renovated 2012	Status quo

⁷ While this room “belongs” to the Provost, no classes other than those from our College are scheduled in that space. Hence, it appears that we are responsible for its maintenance and renovation.

⁸ The Provost has scheduled into this room; however it appears that practice may now end, and that our responsibility for this room is complete.

⁹ This room has been a College room; however, it is now being transitioned to Provost use and responsibility.

Table 19. Freshmen and senior results from the National Survey of Student Engagement for the University of Kentucky, 2009 and 2012.

Benchmark	2009		2012	
	Freshmen	Senior	Freshmen	Seniors
Academic Challenge	ND ¹⁰	0.05; neg.	0.05; pos.	0.05; neg.
Active, Collaborative Learning	ND	ND	0.05; pos.	ND
Student-Faculty Interaction	0.05; pos.	0.05; pos.	0.05; pos.	ND
Enriching Educational Experiences	0.05; neg.	0.05; neg.	0.05; neg.	0.05; neg.
Supportive Campus Environment	ND	0.05; neg.	0.05; pos.	0.05; neg.

¹⁰ ND—no difference between UK and Carnegie peers within freshman or senior classification; 0.05, statistical difference noted at $p < 0.05$ level; neg., UK classification lower than Carnegie peers; pos., UK classification higher than Carnegie peers.

Table 20. University of Kentucky and College of Agriculture results from the National Survey of Student Engagement, 2009 and 2012.

Benchmark	NSSE 2009				NSSE 2012			
	UK		College		UK		College	
	Fr.	Sr.	Fr.	Sr.	Fr.	Sr.	Fr.	Sr.
Academic Challenge	53.8	55.2	52.6	54.1	55.6	55.7	55.7	52.9
Active, Collaborative Learning	40.9	48.6	40.3	50.7	47.1	49.7	47.4	51.1
Student-Faculty Interaction	34.1	41.9	34.7	46.1	35.8	41.5	36.0	44.3
Enriching Educational Experiences	27.6	41.2	28.3	42.2	28.9	41.3	29.0	41.2
Supportive Campus Environment	59.8	54.3	58.4	55.9	63.2	56.3	67.2	56.6
Average n, useful responses ¹¹	1011.0	1175.0	91.0	149.0	709.0	931.0	73.0	136.0

¹¹ The actual number of useful responses differed for each benchmark within a given classification for a given year.

Summary Table 1
College of Agriculture Enrollment, Retention by Cohort

Freshman Cohort	COA Original Enrollment	COA 2nd Year Retention	COA 3rd Year Retention	UK 2nd Year Retention	UK 3rd Year Retention	COA 2nd Year Retention	COA 3rd Year Retention	UK 2nd Year Retention	UK 3rd Year Retention
	#	#	#	#	#	%	%	%	%
Fall 2004	236	175	137	195	176	74.20%	58.10%	82.60%	74.60%
Fall 2005	237	154	120	181	164	65.0%	50.6%	76.4%	69.2%
Fall 2006	288	192	156	212	190	66.7%	54.2%	73.6%	66.0%
Fall 2007	258	193	153	211	186	74.8%	59.3%	81.8%	72.1%
Fall 2008	349	254	199	287	253	72.8%	57.0%	82.2%	72.5%
Fall 2009	283	183	156	225	202	64.7%	55.1%	79.5%	71.4%
Fall 2010	382	266	208	315	281	69.6%	54.5%	82.5%	73.6%
Fall 2004- Fall 2010	2033	1417	1129	1626	1452	69.7%	55.5%	80.0%	71.4%

Summary Table 2A
College of Agriculture Retention by Enrollment/Major

Original Major	Fall 1 Enrollment: Major	Fall 2 Enrollment: Still in Major	Fall 3 Enrollment: Still in Major	Fall 2 Enrollment: Still in COA	Fall 3 Enrollment: Still in COA	Fall 2 Enrollment: Still in UK	Fall 3 Enrollment: Still in UK
Agricultural Biotechnology	284	170	107	200	155	234	210
Agricultural Economics	91	64	48	70	55	74	64
Animal Sciences	490	292	191	341	267	375	326
Biosystems & Agricultural Engineering	134	71	59	88	81	113	112
Community & Leadership Development	59	42	30	47	35	51	45
Career & Technical Education	68	48	38	57	47	58	49
Equine Science & Management	133	102	74	105	84	114	100
Family and Consumer Sciences	14	7	5	7	5	9	9
Forestry	50	29	22	31	27	33	32
Family Sciences	23	16	12	18	14	19	16
Human Nutrition	106	49	32	63	48	89	77
Landscape Architecture	67	51	42	56	46	60	53
Merchandising, Apparel & Textiles	169	116	90	118	94	140	126
Dietetics	131	78	54	85	64	109	95
Hospitality Management & Tourism	81	50	39	51	45	58	57
Natural Resources & Environmental Science	35	19	13	21	18	24	22
Horticulture, Plant & Soil Sciences	41	19	11	24	21	25	22
Undeclared Agriculture	54	24	3	33	21	39	35
Ag-Individualized	3	2	2	2	2	2	2
Across All Majors	2033	1249	872	1417	1129	1626	1452

Summary Table 2B
College of Agriculture Retention % by Major

Original Major	Total Freshman Enrollment 2004-2010	Fall 2 Retention in Major	Fall 3 Retention in Major	Fall 2 Retention in COA	Fall 3 Retention in COA	Fall 2 Retention in UK	Fall 3 Retention in UK
	#	%	%	%	%	%	%
Agricultural Biotechnology	284	59.9%	37.7%	70.4%	54.6%	82.4%	73.9%
Agricultural Economics	91	70.3%	52.7%	76.9%	60.4%	81.3%	70.3%
Animal Sciences	490	59.6%	39.0%	69.6%	54.5%	76.5%	66.5%
Biosystems & Agricultural Engineering	134	53.0%	44.0%	65.7%	60.4%	84.3%	83.6%
Community & Leadership Development	59	71.2%	50.8%	79.7%	59.3%	86.4%	76.3%
Career & Technical Education	68	70.6%	55.9%	83.8%	69.1%	85.3%	72.1%
Equine Science & Management	133	76.7%	55.6%	78.9%	63.2%	85.7%	75.2%
Family and Consumer Sciences	14	50.0%	35.7%	50.0%	35.7%	64.3%	64.3%
Forestry	50	58.0%	44.0%	62.0%	54.0%	66.0%	64.0%
Family Sciences	23	69.6%	52.2%	78.3%	60.9%	82.6%	69.6%
Human Nutrition	106	46.2%	30.2%	59.4%	45.3%	84.0%	72.6%
Landscape Architecture	67	76.1%	62.7%	83.6%	68.7%	89.6%	79.1%
Merchandising, Apparel & Textiles	169	68.6%	53.3%	69.8%	55.6%	82.8%	74.6%
Dietetics	131	59.5%	41.2%	64.9%	48.9%	83.2%	72.5%
Hospitality Management & Tourism	81	61.7%	48.1%	63.0%	55.6%	71.6%	70.4%
Natural Resources & Environmental Science	35	54.3%	37.1%	60.0%	51.4%	68.6%	62.9%
Horticulture, Plant & Soil Sciences	41	46.3%	26.8%	58.5%	51.2%	61.0%	53.7%
Undeclared Agriculture	54	44.4%	5.6%	61.1%	38.9%	72.2%	64.8%
Ag-Individualized	3	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Across All Majors	2033	61.4%	42.9%	69.7%	55.5%	80.0%	71.4%

