

Self Study for
Department of Economics
Gatton College of Business and Economics
University of Kentucky

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Executive Summary
Self Study, Department of Economics
2004-2010

While improvement is always possible and to be strived for, we believe that the Department of Economics has been successful in accomplishing its broad missions of nationally and internationally recognized research, formal training in economics to undergraduate and graduate students, and services to the Gatton College of Business and Economics, the University of Kentucky, the economics profession, and to local, state, and national governments.

Research

- During the period under review, 2004-2010, 85 percent of the faculty (23 out of 27) authored or co-authored published articles in refereed academic journals. This accomplishment is notable in light of the fact that four faculty members hold appointments with primary responsibilities of teaching.
- Publication in highly-regarded, peer-reviewed journals has increased substantially (+60%) during the review period while publication in all peer-reviewed articles has remained steady. There has been a substantial increase (+31%) in Top 10 articles *per faculty member* and a moderate decrease (-14%) total articles published per faculty member. In addition to articles, faculty have authored three books and 25 book chapters.
- Faculty research has a considerable impact as measured by the Web of Knowledge citation count. During the 2004-2010 period, ten faculty members (37%) had their research cited more than 100 times, and more than half of the faculty had their research cited more than 50 times. The mean number of citations during the review period is 92; the median is 60. Eight faculty members (30%) have more than 250 career citations. The mean number of career citations is 186; the median is 95. Seventeen faculty (63%) members (including *all* tenured faculty) have at least one article that has been cited 20 or more times. Five (19%) have at least five articles that have been cited at least 20 times.
- Department faculty members have participated in securing 61 external grants during the 2004-2010 period. Grants are typically administered by the Center for Business and Economic Research or the Center for Poverty Research which are both housed in the Department. Grants for which Department of Economics faculty were the Principal or Co-Principal Investigators and which were administered through one of these centers drew funding from a number of sources such as the Kentucky Cabinet for Economic Development, Kentucky Cabinet for Education, Kentucky Cabinet for Health and Family Services, Kentucky Community and Technical College System, Spencer Foundation, Upjohn Institute for Employment Research, U.S. Department of Education, U.S. Department of Health and Human Services, and U.S. Department of Labor.
- The total amount of funded research during the current review period is approximately \$12,672,000 (in constant 2010 dollars). The total is approximately 2.7 times as great as

funding in the previous period. Much of the increase in funding can be attributed to the growth of the UK Center for Poverty Research that brought in approximately 82% of the total. The emergence of this Center has been a major development in the Department, and its success has more than offset declines elsewhere associated with the Great Recession.

- Faculty members made 274 presentations (about 39 presentations per year) over the review period, 2004-2010. There were 69 presentations at conferences organized by national or international associations. Examples include Brookings Institution, Cornell University, Duke University, Harvard University, National Bureau of Economic Research, Northwestern University, Princeton University, Queens University, Stockholm School of Economics, and Stanford Institute for Theoretical Economics. Thirteen keynote addresses or plenary presentations were given by faculty at locations around the globe over the seven year period.
- The Department has had three active workshops: (1) Mark C. Berger Applied Microeconomics Workshop, (2) Macroeconomics Workshop, and (3) University of Kentucky Center for Poverty Research Workshop. They have been combined at times, held jointly with the Martin School of Public Policy and Administration and others on campus and have met weekly. In addition to speakers from the department, scholars have come from universities such as Chicago, Cornell, Dartmouth, Duke, Johns Hopkins, Michigan, MIT, Wisconsin, and Yale.

Graduate Education

- Applications to the graduate program have risen by approximately 62% during the study period. The total number admitted has remained approximately constant and first year cohort sizes have remained at approximately eight students.
- We have seen a slight rise in both quantitative and verbal GRE scores over the period, in both applicant pool and in the first year cohort.
- Approximately 60% of enrollment in our core (first year) Ph.D. courses derives from students in Ph.D. programs outside of Economics. Primarily, these students are enrolled in the Business Ph.D. program (mostly Finance and Accounting), Agricultural Economics and the Martin School of Public Policy and Administration Ph.D. programs. Recently the Pharmacy program in Pharmacy Policy has been encouraging students to enroll in our program.
- Typically five to seven students per year are in the job market. Placements are primarily in academic institutions with placements in Universities with at least Master's programs representing 67% of total placements during the study period.
- Nearly unique among graduate programs in economics is the training and mentoring our students receive to develop their teaching skills. Training includes a special short course the annual teaching economics workshop sponsored by the department.

- The alumni survey revealed that alumni ranked our program as "good" (out of excellent, good, average, fair or poor) in categories representing our three major program objectives and the learning goals in those objectives.
- The alumni survey demonstrated that alumni enthusiastically recommend our program to students interested in economics Ph.D. programs.
- The alumni survey revealed that our weakest categories were perceived to be in developing knowledge of theory to produce economic research and developing research skills to produce research.
- The faculty survey pointed out that our graduate student stipends, particularly for TA's, were far below those of competitors (\$11,923 vs. \$16,300 for all PhD economics programs and \$23,000 for National Research Council Tier I and II programs). In addition, our students have higher teaching loads than TA's at comparable departments.
- Faculty are proud of placements of our Ph.D. graduates, but are concerned that the students entering our program are weaker than we would prefer.

Undergraduate Education

- Enrollment in economics courses has remained steady at a high level. The number and composition of majors, however, have changed during the review period. The number of majors in the Gatton College of Business and Economics grew substantially (+32%). The relatively new Mathematical Economics major grew (+16%). The number of Arts and Sciences economics majors increased slightly (+3%). The Foreign Language and International Economics (FLIE) major was absorbed into the new International Studies Program in Arts and Sciences. Consequently, the number of FLIE majors dropped from 194 in Fall 2007 before it was eliminated as a separate major to only 12 in Fall 2010. Overall, the total number of economics majors decreased (18%) during the review period.
- On average, the grades of Arts and Science (2.46) economics majors are far below the grades of B&E economics majors (3.31) and Mathematical Economics majors (3.11). As a result of this performance differential and concern for students selecting economics as a major because it is an appropriate fit, the department has now established a prerequisite grade of C or higher in ECO201 Principles of Economics I and ECO202 Principles of Economics II for ECO401 Intermediate Microeconomic Theory to help ensure that students who pursue the major are more likely to be qualified, able to successfully complete the major, and have a positive learning experience in the process.
- Results of surveys suggest that generally the Economics majors, as alumni, are pleased with their training. Results of additional assessment efforts for accreditation would also indicate that students are learning economics in the courses they take.

- Several new initiatives are already underway including the development of the International Economics and Business major program, on-line tutoring for economics principles courses through the Lab for Economic and Accounting Proficiency, expanded program assessment techniques, the redesign of ECO101 and possibly ECO201 to become compatible with the new general education requirements, and the implementation of prerequisite grade requirements for admission into ECO401.

Department Centers

- The Center for Poverty Research (UKCPR) has played a key role in raising the national visibility of the Department and University through its external grant programs, internal funding programs, seminar series, conferences, and publications. Research support to UK faculty and graduate students, as well as faculty from around the nation, has resulted in scores of peer-reviewed articles and books. Federal funding for UKCPR is in excess of \$10 million, and the 2010 USDA award of \$5 million is the largest grant awarded to a program in the Gatton College of Business and Economics.
- The Center for Business and Economic Research (CBER), housed with the economics department, has a long history of conducting applied economic studies for the Commonwealth. It is a leading source of information on the Kentucky economy. Between 2004 and 2010, CBER revenues from grants and contracts were in excess of \$2 million.
- CBER produces the *Kentucky Annual Economic Report* as well as providing economic and public policy information to government, businesses, media, and interested persons across the Commonwealth. In addition, CBER generates reports for external clients as well as articles for publication in academic journals.
- CBER employs two faculty and three staff members, and it typically employs between two and five students as research assistants.

Resources

The department is positioned with strong faculty and a set of academic programs which are in high demand. The main weakness is a significant lack of resources in two important areas.

- While there are excellent scholars in the department, there are too few faculty for the number students served and for the expectations of research and outreach expected at a research university. To be more comparable to benchmark departments would take five additional tenure track lines plus two additional lectureship lines.
- Underfunding graduate student financing limits both the number and the quality of students the Department is able to recruit. To be competitive with benchmark departments would take approximately 15 additional teaching assistantships with an increase in stipend levels to \$18,000 per year. The additional assistantships would allow the size of the entering class to increase slightly and allow successful students funding

through a fifth year, the norm in the discipline. The increase in the stipend from \$11,923 would bring the Department closer to the \$23,000 Tier I and II schools offer and much more competitive with the other Ph.D. granting universities.

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1. Introduction

1.A Statement of University Requirements and Guidelines for the Self-Study

This Department of Economics self-study is part of the program review done by academic units every five to seven years as required by University Administrative Regulation AR 1:4. The last self-study was done for the period 1997-2003 and was completed March 22, 2004. It was written by Self-Study Committee members William Hoyt (Chair), Mukhtar Ali, Chris Bollinger, and Glenn Blomquist. The current self-study is for the period 2004-2010. The current self-study updates the previous report and contains new material.¹ This self-study covers all facets and operations of the Department.

The Department of Economics is housed in the Gatton College of Business and Economics. This review covers programs within the Gatton College. In addition, it covers two undergraduate programs that have been offered jointly with the College of Arts and Sciences. The Mathematical Economics Undergraduate Program (MAEC), an interdisciplinary undergraduate degree program co-sponsored by the Department of Mathematics and the Department of Economics, was reviewed separately in 2008. The Foreign Language and International Economics (FLIE) major is currently offered jointly with the College of Arts and Sciences, but it is being phased out as the FLIE students graduate. It was reviewed separately in 2003-04. Both reviews are included in an appendix to this self-study. The Department also offers an economics major through the College of Arts and Sciences. It should be noted the Department is part of the Gatton College of Business and Economics and there is no economics department housed in the College of Arts and Sciences.

As stated in the administrative regulations, this department self-study is one component of the review along with a review and report by a team providing an external perspective. A brief description of the self-study based on the administrative regulations (AR 1:4, pp. 13-14) is found below.

1. Unit self-study. The unit shall first prepare a self-study report that covers the time since the last review (5-7 years). The nature of the unit and its programs/services and/or any special focus given to the program review may require additional elements in the self-study; however, the self-study shall include, as appropriate:

(a) *Program Documents*: strategic plan, mission statement, goals and objectives, and criteria for measuring progress, and organizational chart or structure.

(b) *Resources*: summary information about the adequacy of budget, facilities, equipment, personnel, including faculty and staff numbers and demographics, and support from other university units essential to effective operations, such as research, engagement, development, alumni affairs, human resources, facilities management, financial units, and information technology.

¹ The current report uses the same format as the previous report, and some of the same text is used where it is still relevant. In these ways the debt to the previous committee is great and freely acknowledged by the current committee.

(c) *Input from Affected Constituents*: as appropriate, units shall collect evaluation data from faculty, staff, and students who are affected by the delivery of programs of the unit.

(d) *Adherence to Policies and Procedures*: evidence of adherence to university policies and procedures. For educational units this includes evidence of adherence to educational policies and procedures established through the faculty governance process, including consistency in applying policies related to grading, probation, and termination; evidence of adherence to procedures on faculty personnel actions and budget request preparation that are established jointly by the unit faculty and the unit head.

(e) *Evaluation of Quality and Productivity*: evidence of the quality of the collegial environment, including the climate for diversity, and evidence of quality and productivity in instruction, research, public service, or operations, including, as appropriate, the quality of:

- (1) faculty and staff employees, communications and interactions;
- (2) orientation, advising and other student service programs;
- (3) student learning outcomes;
- (4) customer or client satisfaction;
- (5) business and operating procedures;

d) *Analysis of Strengths and Recommendations for Quality Enhancement*: a synthesis of self-study findings resulting in a summary of strengths and recommendations for quality enhancement.

1.B Statement of the Organization of the Study

Given the charge placed by the Administrative Regulations and the multiple goals and missions of the Department of Economics, we organize the study in the following manner: In *Section 2*, we present the statement of goals and objectives of the Department of Economics as well as the Gatton College of Business and Economics and the University. In that section, we provide some of the requested program documentation, specifically the Mission Statement of the Department and Strategic Plans that were in effect during the period of review, 2004-2010. Discussion and presentation of these documents facilitates our evaluation and assessment of the program. The Self-Study Committee, with input from all department faculty members, identified four components of the mission of the Department of Economics. These components are Research, Graduate Education, Undergraduate Education, and Outreach to the Commonwealth and Community through our Research Centers. In this study we address each in a separate section.

In *Section 3*, evidence and evaluation of departmental research effort is presented. In *Section 4*, graduate education is discussed. *Section 5* provides a detailed discussion of undergraduate education. *Section 6* discusses the activities of the Department's two research centers: The Center for Business and Economic Research (CBER) and the University of Kentucky Center on Poverty Research (UKCPR). In *Section 7* we discuss departmental resources. In each section that discusses a mission of the department (*Sections 3 – 6*) an evaluation of the department's effectiveness in that mission or, in the terms of the administrative regulations, analysis of

strengths and recommendations for quality enhancement, is provided. In *Section 8* we offer a broader view of the strengths of the department and offer recommendations for possible changes in the department that incorporate and integrate some of the suggestions offered earlier in this study.

In addition to the text, this self-study contains a number of appendices. We have chosen to organize these appendices to match the section of the text of the study to which they correspond. Thus *Appendix 3* will contain supplementary materials for *Section 3* of the study. Additional appendices of greater length include: (1) the 2008 self study of the *Mathematical Economics Program (MAEC)*, (2) the 2003 self-study of the *Foreign Language and International Economics (FLIE)* program, and (3) the 2003-04 self-study of the Department of Economics.

1.C Sources of Information and Data

To adequately address the charge of evaluating the quality of the Department of Economics and its success in meeting its stated mission as well as evaluating the resources available to the Department to meet this mission data has been collected, much of it explicitly for use in this study. From University sources, primarily from the website of the Office of the Vice President for Institutional Research, Planning, and Effectiveness (<http://www.uky.edu/IRPE/>), we have obtained data on course enrollments, majors, and numbers of graduates. Additional data on course enrollments and the composition of students in the courses was obtained directly from the Gatton College of Business and Economics and the College of Arts and Sciences.

It was the view of the self-study committee that to evaluate orientation and advising programs for undergraduate/graduate students; student learning outcomes; and customer/client satisfaction with our “customers” being students, it was necessary to undertake surveys of alumni of the Department in addition to using data obtained from exit surveys undertaken by the University. A copy of a survey of undergraduate alumni that was placed on the Departmental website and completed interactively is found in an appendix. This survey was also given to graduating senior economics majors.

A copy of a survey sent out by e-mail to Ph.D. graduates of the Department asking questions about the views of the program and the training they received is also included in an appendix. We found both surveys, particularly the survey of Ph.D. alumni, useful in understanding some of the concerns of our students and how we might consider revising the curriculum to address some of these concerns. Anonymous responses to this survey are found in *Section 4*.

To ensure that we elicit the concerns and thoughts of our faculty, in addition to having a faculty meeting in which the study was discussed, we also gave faculty an opportunity to respond (anonymously if they so chose) to a survey as well. A copy of this survey is found in an appendix as well. Anonymous, paraphrased and summary responses are given in the relevant sections of this study. As this survey asks questions of the faculty on the research environment, resources, and both graduate and undergraduate education, discussion of the results of this survey are found throughout the study.

2. *Statement of Goals and Objectives*

Before any attempts are made to evaluate the quality and productivity of the Department and its programs, a review of the stated mission and the strategic plans of the Department is in order. During the review period, 2004-2010, several sets of mission statements and goals and objectives were guiding the work of the Department of Economics. This review period bridges the Department of Economics mission statements and strategic plans of 1996-2006 and 2007-2012. These are described below. The Department of Economics is included in the College of Business and Economics Strategic Plan of 2007-2012 and the University of Kentucky Mission Statements and Strategic Plans, called the Dream and the Challenge for 2003-2006 and Top 20 Plan for 2007-2010 and 2009-2014. We consider how the stated mission of the Department and its plans for meeting this mission compare to the mission and strategic plans of the Gatton College of Business and Economics and plans of the University of Kentucky.

2.A *Department of Economics Mission Statement 1996-2006*

The Mission Statement for the Department read:

The mission of the **Department of Economics** is to provide economic education to the citizens of Kentucky and everywhere. There are three components of the mission.

1. Conduct nationally and internationally recognized research designed to increase our understanding of economic phenomena.
2. Provide formal training in economics to undergraduate and graduate students at the University.
3. Provide services to the College and University, the profession, and to local, state, and national governments.

The Department of Economics will fulfill its mission by:

- Conducting research that leads to publications in quality scholarly journals.
- Providing a thorough and meaningful education in economics to undergraduate students of the University - both those with majors in the Department and those from other programs.
- Advancing the knowledge and skills of graduate students, both from the departmental graduate programs and from other graduate programs of the University, by conducting advanced seminars and supervising students' own research programs.
- Promoting the understanding of human behavior by conducting applied economic policy analysis for local, state, and national governments.
- Providing service to promote the research and service needs of the profession.

2.B Department of Economics Strategic Plan 1996-2006

While the Mission Statement gives some indication of how the three missions of the Department are to be accomplished, more details are provided in the Strategic Plan of the Department. The Strategic Plan of the Department was first drafted in 1996 and reviewed revised in 1999 though the revisions made in 1999 were minor. Both plans were approved in meetings of the Economics Faculty. Plans consist of broad goals in the Ph.D. program, research, the undergraduate program, and service. More specific objectives follow the goals. Finally, each set of goals has performance measures associated with it.

In the 1999 the stated goal of the Ph.D. program was to “[i]ncrease the success of PhD graduates in obtaining employment and advancing their careers” with four objectives:

- Objective 1: Improve the empirical and applied research skills of students early in their training.
- Objective 2: Encourage students to engage in research.
- Objective 3: Continue to increase the quality of incoming students
- Objective 4: Improve job placements of graduate students

For research the broad goal was to “[i]ncrease visibility of department research and programs. Objectives included:

- Objective: Recruit an outstanding scholar for a new Gatton Chair in Microeconomics
- Objective 1: Have a high level of faculty interaction with others in the profession and opportunities to keep abreast of the frontiers of research.
- Objective 2: Increase assistance for research activity.
- Objective 3: Thoroughly disseminate the scholarly research of the faculty.

The undergraduate program lists as its goal to “[i]mprove the learning experiences of students who take economics at the undergraduate level” with objectives of:

- Objective 1: Improve the learning experience of students taking introductory economics.
- Objective 2: Strengthen the economics preparation of undergraduate majors.

For service, the Center for Business and Economic Research (CBER) had the goal of “[p]romot[ing] understanding of human behavior through applied economic research. Specific objectives included:

- Objective 1: Perform applied economic research for the citizens of Kentucky and the nation.
- Objective 2: Provide economic data for scholars, policymakers, and the public in the Commonwealth of Kentucky and the nation.
- Objective 3: Support the research mission of the Department of Economics.

The Strategic Plan also had a goal of promoting the research and service needs of the profession and the University with objectives of:

- Objective 1. Provide refereeing and editorial assistance to academic economics journals.
Objective 2: Implement and Offer the new PhD course sequence in Business Economics.
Objective 3: Recruit for a Senior Level Position in Industrial Economics and Strategic Management joint in the School of Management and the Department of Economics, Gatton College of Business and Economics

2C. *Department of Economics Mission Statement and Strategic Plan 2007-2012*

Note: The Department mission statement and strategic plan were integrated into the Gatton College of Business and Economics strategic plan beginning in 2003 with the arrival of a new Dean of the College and eventually combined in a unified College plan in 2007. What follows was written and adopted in March 2007 and is the Department of Economics part of the unified document for the College. The world has changed some since 2007, but this is the current plan.

The Department of Economics is an integral part of the Gatton College of Business and Economics and the University of Kentucky. The Department serves multiple constituencies in carrying out its fundamental missions in research, teaching, and service. As part of overall growth in the University, the Department proposes a plan that (1) builds on its core strengths and (2) cooperates with other units in developing interdisciplinary programs both at the graduate and undergraduate level. Additional faculty in the Department's core strategic groups and for its special initiative will add greatly to existing synergies within the Department and across the College and University, lead to increased research productivity, an enhanced reputation of our graduate and undergraduate programs, and to greater overall prominence. Furthermore, our proposed areas of emphasis address important issues noted by Provost Subbaswamy and President Todd, including poverty, education, health and welfare, economic development, and other pertinent public policy questions.

National trends and trends at UK by themselves suggest growth in the Department of Economics is prudent. For example, the *Wall Street Journal* reports that the number of economics majors at U.S. colleges and universities increased by 40% over a recent five year period (<http://www.careerjournal.com/myc/school/20050707-vascellaro.html>). The Department's own self study (Self Study, Department of Economics, March 2004) indicates that the number of economics majors at UK nearly doubled between 1997 and 2003 and more recent data show a continued upward trend. More importantly, however, the plans described below ensure that growth in the Department (and in related disciplines) is in keeping with President Todd's plans of transforming UK into a top 20 institution.

I. Core Program

The Department of Economics core program is centered on three strategic groups:

- (a) Economic Welfare and Economic Development
- (b) The Economics of Strategy and Organizations
- (c) The Global Economy and the Macro Economy

Each has an overlapping group of faculty with active research programs and addresses issues important in the economics profession as well as for the College and University. This small number of groups suggests a tighter focus than many of our benchmark institutions. Indeed, the Self Study (2004) shows that nearly all our benchmarks offer more fields of specialization. Note, though, that all reputable doctoral programs in economics cover the fundamental areas of microeconomics, macroeconomics, and econometrics. Our approach enables us to be broad enough to provide sound training in these fundamentals and yet have enough focus to move us to substantially greater prominence with a reasonable investment.

Additionally, the Department has a long-established reputation for its empirical and applied emphasis. In fact, the last National Research Council ratings (in 1993) ranked the Department in the top quarter of all departments (26.5 of 107 programs) in publication citations per faculty member. By this measure the faculty ranked 11th among economics departments in public universities.

Building around these strategic groups complements that reputation. Also, building in this manner is also expected to serve us well in enhancing the strength of our Ph.D. and Masters' programs, as well as our undergraduate Economics degrees in B&E and in A&S, the Foreign Languages and International Economics degree, and the Mathematical Economics degree.

A. Economic Welfare and Economic Development

This area of emphasis falls within the Department's historic strength in applied microeconomics. While much of economics is concerned with the welfare and development of society, the focus of this group is on policy questions arising in labor and health economics involving education, income, poverty, and health care and on economic development issues in public economics, environmental economics, and urban economics. These topics are interrelated and blend naturally together and dovetail with the strong and highly-regarded tradition of research done by the Center for Business and Economic Research (CBER) and also with the newer and prestigious programs of the UK Center for Poverty Research (UKCPR). Because of the links to CBER and UKCPR, the prospect of greater external funding is strong. These links also connect the group strongly to outside constituencies, including policy makers and the business community. The research done by faculty in this group is especially relevant in addressing many issues noted by Provost Subbaswamy and President Todd, such as poverty, education, health and welfare, and economic development. Furthermore, interdisciplinary links with this group already exist (e.g., individual faculty members' links to the Martin School, UKCPR's links to sociology, CBER's links to marketing) and can be enhanced with the growth of this group.

B. The Economics of Strategy and Organizations

Strategy and organizations, too, falls within the Department's historically strong applied microeconomics area. There are links of this group to strategic group A through the economics of regulation and human resource management issues. This area also addresses fundamentals – principal-agent theory, transactions cost analysis, industry analysis, and game theory and strategy – that underlie many business problems. In addition to being an important part of the economics graduate program, the link to management issues has made courses in this area very popular

among graduate students in management, accounting, and finance. Growth of this group will enhance the reputations of the graduate programs in both economics and business administration and presents an opportunity for cross-disciplinary programs. This also applies at the undergraduate level, where clusters of related courses in various disciplines can be designed to address issues such as corporate governance (with courses from economics, accounting, and finance), strategy and games (with courses from economics and management), and supply chain and product distribution (with courses from economics, marketing, and DSIS). Also, there are likely to be applied research funding opportunities through the Sloan Foundation Center for the aluminum industry located at UK.

C. The Global Economy and the Macro Economy

The issues in this area also are of long-standing expertise in the Department and are core to any doctoral program in economics. This area deals with international economics issues, macroeconomic issues, and the link between them. The topics addressed by this group also are fundamentally connected to broad business concerns such as business cycles and inflation both here and abroad, and with international commerce issues such as exchange rate risk, international capital flows, and assessing country risk. Indeed, most issues associated with the term “globalization” are related to this area. The University’s stress on our place in the global economy entails a focus in this area.

At the graduate level, this area of specialization is especially popular among international students and improvements here can help us attract the best international students to our Ph.D. program. As with strategic group B, there are many opportunities for cross-College specializations in this area, such as clusters of courses in international financial markets (with courses from economics and finance), open economy macroeconomics (with courses from economics and finance), and country risk and business abroad (with courses from economics, marketing, and management). The Foreign Languages and International Economics (FLIE) program is an interdisciplinary program that already exists and is highly successful. Further investment in this group and coordination with the FLIE program can lead to an exemplary interdisciplinary program. Interdisciplinary programs with the Patterson School also have potential, given that the Patterson School is eager to have more of its students exposed to international economics.

The Department of Economics already has established a solid national reputation in each of the three strategic groups. Going forward, our plan is to strengthen the areas where we already have established scholars to build on synergies that, to some extent, are already in place. That would allow the Department to expand and strengthen existing strategic groups of researchers and to expand and strengthen the Ph.D. program. Along the way, external funding is expected to increase and interdisciplinary programs will be enhanced. All will enable the Department (and College and University) to rise in national prominence.

II. Special Initiative

In addition to growth in the core areas of the Department, there are two clear areas where even further expansion will be highly valuable: the Center for Business and Economic Research

(CBER) and the UK Center for Poverty Research (UKCPR). Both are closely tied to the core of the Department's programs and its traditional emphasis on applied microeconomics. The Center for Business and Economic Research is the applied business and economics branch of the Gatton College.

CBER conducts a variety of applied business and economic research projects and provides consultation services to government agencies, businesses, media outlets, and the general public. In addition, CBER performs contract research for a variety of public and private sector clients. The CBER research program involves faculty in economics and, because projects may require other business perspectives, CBER reaches out to faculty in other units in the Gatton College to involve on various research projects. Recent clients include the U.S. Appalachian Regional Commission, the Kentucky Governor's Office, the National Science Foundation, the U.S. Agency for Health Policy Research, the U.S. Department of Health and Human Services, the W. E. Upjohn Institute for Employment Research, the U.S. Small Business Administration, and Toyota Motor Manufacturing, USA, Inc. CBER already conducts nationally prominent research, and is well positioned to expand its role. Issues such as economic development, workforce issues, health policy, and entrepreneurial activity that are of great importance to Kentucky have been researched by UK faculty through CBER. An expansion of CBER's role is a natural area for additional funding as the University moves forward.

The UK Center for Poverty Research also conducts nationally prominent research on one aspect of what President Todd refers to as the "Kentucky Uglies." The UKCPR was established in 2002 as one of three federally designated Area Poverty Research Centers with core funding from the U.S. Department of Health and Human Services. The Center's research mission is a multidisciplinary approach to the causes, consequences, and correlates of poverty and inequality in the southern United States. A focused research agenda on poverty in the South is critical to poverty research because low-income populations in the South face a different set of challenges than comparable groups in other parts of the U.S., which is manifested in a host of economic and social disparities including higher rates of poverty, inequality, and welfare-program utilization. The Center's research program has focused on challenges facing low-income populations in the South, as well as market and non-market-based opportunities for economic and social mobility. The Center strives to assist local, regional, and national policymakers in the design of anti-poverty programs and policies. UKCPR staff and faculty affiliates reflect the cross-disciplinary emphasis of the research agenda, with representatives from economics, political science, public health, public policy, social work, and sociology. In fact, UKCPR has 30 faculty affiliates across seven colleges and has provided over \$200,000 in grants to UK faculty. The UKCPR has already achieved national prominence in poverty research. It fits in well with an economics department that has an applied microeconomics emphasis. Additional resources for hiring faculty in economics and other disciplines would enhance an already well-established national reputation in this key area of research.

Economics faculty are central to both centers. Since both centers focus on applied microeconomics research in the areas of public, labor, health, environmental, and industrial organization, increasing the number of faculty involved in these centers complements the planned growth in the core areas of the department and enhances our growth towards being a

Top 20 economics department. Faculty from other units on campus are also active in the research programs of both, and our plans would be to further enhance the cross-disciplinary focus of these centers. The centers have funded graduate students in economics, marketing, public policy, sociology, and political science and currently fund 8 graduate students. These graduate students are actively involved in on-going research, freeing up Department and College money to fund other graduate students. Expanding these centers would enhance the graduate program in both the Department and the College. In addition, both centers compete successfully for national research funding and facilitate nationally prominent research. In fact the two centers combined brought in \$1.14 million in research support during fiscal year 2006 and in the first seven months of fiscal year 2007 have received \$1.11 million in funding. Expanding these two centers would allow the centers to focus even further on attracting federal research dollars, which is an integral part of President Todd's efforts to move the University towards Top 20 status. Finally, both centers engage in the type of policy oriented research that has a direct impact on the citizens of Kentucky. Increasing research that directly affects the lives of all Kentuckians is a stated goal of both President Todd and Provost Subbaswamy and expanding CBER and UKCPR will help the University achieve this goal.

III. Resources

The Department proposes 6 additional faculty lines in economics to be allocated across its core strategic groups.

Depending on the development of interdisciplinary curricula, new lines for other units may be created for allocation to the cross-disciplinary programs.

The Department also proposes that, beyond allocations to its core, 3 additional faculty lines in economics be created for the special initiative. Also, due to the interdisciplinary nature of the initiative, we suggest that 1 additional faculty line be created in marketing or management and 1 additionally faculty line created for a social science discipline outside economics, both for faculty who would actively pursue research projects and funding in business and economic development and in poverty policy.

(Here ends the Department of Economics part of the College Strategic Plan 2007-2012.)

2.D. The Gatton College of Business and Economics Mission Statement 2007-2012

The College Mission and Strategic Plan for 2007-2012 evolved from an earlier, similar plan that began to evolve take shape in 2004. What follows is from the more recent 2007-2012 plan.

I. Statement of Mission and Values

A. Mission

The Gatton College of Business and Economics is focused on enriching people's lives by creating and disseminating intellectual capital through excellence in teaching, research, and engagement. The Gatton College's intellectual domains within the University are the intellectual disciplines of business and economics. Across these disciplines the College:

- Expands knowledge through research, scholarship and creative activity
- Facilitates learning, informed by scholarship and research
- Serves a global community by disseminating, sharing and applying knowledge
- Promotes human and economic development that improves lives within Kentucky's borders and beyond.

B. Values

The values of the University of Kentucky guide our decisions and behavior. Our core values are:

- Integrity
- Academic excellence and freedom
- Mutual respect and human dignity
- Diversity of thought, culture, gender, and ethnicity
- Personal and institutional responsibility and accountability
- Shared governance
- A sense of community
- Sensitivity to work-life concerns
- Civic responsibility

C. Strategic Plan

In today's global knowledge economy the pace of competition is accelerating, Ideas are being turned into new products and services at an ever increasing pace. Jobs and capital move quickly across state and national boundaries, transforming communities as they take advantage of new sources of talent and low cost production. Over the next several decades, a keen understanding of global economic forces, expert talent that can effectively manage long supply chains that span across multiple cultures and countries, and an entrepreneurial perspective that can identify and exploit new market opportunities will be the key drivers of success for individuals as well as states in this new "flat world". This combination of vision, skills and abilities is uniquely nurtured in schools of business and economics. The Commonwealth's strength and prosperity therefore depend on the quality of its intellectual capital in the areas of business and economic education. To answer Kentuckians' call to educate their children, support their businesses, and strengthen their communities through economic development requires the University through the Gatton College to provide a readily available source of intellectual business and economics capital.

It is for these reasons that we have to be a world-class business school, one that offers students a transformative experience, advances our understanding of business competitiveness through cutting-edge research and improves the lives of all Kentuckians through active engagement with the business and nonprofit community in ways that enhance understanding while generating opportunity and prosperity.

To build a College of Business and Economics that is consistent with our aspirations, the University's strategic plan, and the President's Top-20 business plan we propose to use the resources generated by our anticipated enrollment growth to make focused investments in the

intellectual capital (see Goal III) necessary to enhance our national prominence and international presence through a commitment to continuous improvement of our innovative programs, publication of state-of-the-art research and proactive engagement.

The five goals are:

- I. Achieving Growth
- II. Preparing World-Ready Students
- III. Enhancing Intellectual Capital
- IV. Embracing Diversity
- V. Engaging Kentuckians

The complete Gatton College of Business and Economics Mission and Strategic Plan for 2007-2012 can be found in *Appendix A.2*.

2.E The Dream & The Challenge and Subsequent University Strategic Plans that include the Top 20 Plan

Evaluation of the Department should not only be in terms of the stated mission of the Department but also within the context of the mission of the University. The first mission statement of the University for the 2004-2010 review period can be found on its website (<http://www.uky.edu/Home/2003-06StrategicPlan/vision.html>) and is provided below:

A. The Dream and the Challenge 2003-2006

VISION: The University of Kentucky will be one of the nation's 20 best public research universities, an institution recognized world-wide for excellence in teaching, research, and service and a catalyst for intellectual, social, cultural, and economic development.

MISSION: The University of Kentucky is a public, research-extensive, land grant university dedicated to enriching people's lives through excellence in teaching, research, and service.

The University of Kentucky:

- Facilitates learning, informed by scholarship and research.
- Expands knowledge through research, scholarship and creative activity.
- Serves a global community by disseminating, sharing and applying knowledge.

The University, as the flagship institution, plays a critical leadership role for the Commonwealth by promoting human and economic development that improves lives within Kentucky's borders and beyond. The University models a diverse community characterized by fairness and social justice.

VALUES: The values of the University guide our decisions and behavior. Our core values are:

- Integrity
- Academic excellence and freedom

- Mutual respect and human dignity
- Diversity of thought, culture, gender, and ethnicity
- Personal and institutional responsibility and accountability
- Shared governance
- A sense of community
- Sensitivity to work-life concerns
- Civic responsibility

The University of Kentucky Strategic Plan for 2003-2006 is summarized in the “The Dream & the Challenge.” Briefly, the plan states six goals:

1. Reach for National Prominence
2. Attract and Graduate Outstanding Students
3. Attract, Develop and Retain a Distinguished Faculty
4. Discover, Share and Apply New Knowledge
5. Nurture Diversity of Thought, Culture, Gender and Ethnicity
6. Elevate the Quality of Life for Kentuckians

B. University of Kentucky Mission Statement and Strategic Plan for 2006-2009

VISION

The University of Kentucky will be one of the nation's 20 best public research universities, an institution recognized world-wide for excellence in teaching, research, and service and a catalyst for intellectual, social, cultural, and economic development.

MISSION

The University of Kentucky is a public, research-extensive, land grant university dedicated to improving people's lives through excellence in teaching, research, health care, cultural enrichment, and economic development.

The University of Kentucky:

- Facilitates learning, informed by scholarship and research.
- Expands knowledge through research, scholarship and creative activity.
- Serves a global community by disseminating, sharing and applying knowledge.

The University, as the flagship institution, plays a critical leadership role for the Commonwealth by contributing to the economic development and quality of life within Kentucky's borders and beyond. The University nurtures a diverse community characterized by fairness and equal opportunity.

VALUES

The values of the University guide its decisions and the behavior of its community. Its core values are:

- Integrity
- Academic excellence and academic freedom
- Mutual respect and human dignity

- Embracing diversity
- Personal and institutional responsibility and accountability
- Shared governance
- A sense of community
- Sensitivity to work-life concerns
- Civic responsibility
- Service to society

Strategic Plan 2006-09

Steeped in the rich tradition of America's land-grant universities, the University of Kentucky has for over 140 years touched every corner of the Commonwealth. Time and again, Kentuckians have looked to their flagship university as a major resource for educating their children, supporting their businesses, strengthening their communities, protecting their health, and improving their lives.

As this new century unfurls, UK is challenged to do more than ever. In a knowledge economy, there is a strong symbiotic relationship between a state's condition and its intellectual capital. That capital is most readily available at the statewide research university. Compared to the national average, people in states that are home to the nation's leading research universities enjoy higher educational attainment and higher incomes, are less likely to live in poverty, and are more likely to lead healthier lives.

The Commonwealth's strength and prosperity therefore depend on the quality and vitality of its leading research university. In 1997, Kentucky's elected representatives placed in statute their recognition of this valuable instrument for progress when they mandated that UK become a Top 20 public research university. This bond between the people of Kentucky and UK affirmed their mutual dependence and shared ambition. In return for substantial new investment from the state, UK would produce tangible benefits for the Commonwealth.

At its December 13, 2005 meeting the UK Board of Trustees adopted the Top 20 Business Plan. The Business Plan identifies the financial resources UK will need to implement a series of ambitious academic strategic plans that will chart the university's direction over the next 15 years. The 2006 Kentucky General Assembly then embraced the Business Plan, allocating substantial public resources to the achievement of its specific objectives. That support is accompanied by the expectation that UK has the vision and the will to transform itself.

In his letter transmitting the Business Plan to the Board of Trustees, UK President Lee T. Todd, Jr. wrote: The next Strategic Plan will define specific measures of quality, establish strategic goals for excellence, and direct the allocation of resources across campus. . . . We will discuss as an academic community what our priorities and specific goals are, how we can best achieve those goals, and how resources will be allocated.

These discussions will translate the Business Plan into a plan of action. It must be a dynamic, serious, and honest conversation about what kind of university we want to be. Make no mistake about it. This institution must change if we are going to succeed. A university wedded to the

status quo in a dynamic world will fail. Just as we need to force a discussion with the state about our need for more resources, we must force the internal discussion about our priorities. And those priorities must ultimately find their core in the needs of the people of Kentucky and what their flagship university is uniquely qualified to provide.

At the direction of President Todd and under the leadership of newly appointed UK Provost Kumble Subbaswamy, the University Committee on Academic Planning and Priorities began crafting this Strategic Plan for 2006-09 in March 2006. By building on the 2003-06 Strategic Plan and marking the first step in the implementation of the Business Plan, the 2006-09 Strategic Plan represents both renewal and change. It articulates the goals of a university community that will continue its determined march toward Top 20 status and will have a broader and deeper impact on lives across the Commonwealth. The five goals of this Strategic Plan identify the principal areas of activity in which the talents and resources of the university will be invested over the next three years. Under each goal are several objectives that make specific the intentions of the University of Kentucky.

The five goals are:

1. Enhance the University's Stature among its Peers
2. Prepare Students for Leadership in the Knowledge Economy and Global Society
3. Enhance the Intellectual and Economic Capital of Kentucky through Growth in Research
4. Embrace and Nurture Diversity
5. Engage Kentuckians through Partnerships to Elevate Quality of Life

A copy of the complete 2006-2009 plan can be found at:

http://www.uky.edu/ucapp/files/Strategic_Plan-Narrative.pdf

C. University of Kentucky Mission Statement and Strategic Plan for 2009-2014

Mission

The University of Kentucky is a public, land grant university dedicated to improving people's lives through excellence in education, research and creative work, service, and health care. As Kentucky's flagship institution, the University plays a critical leadership role by promoting diversity, inclusion, economic development, and human well-being.

Vision

The University of Kentucky will be one of the nation's 20 best public research universities.

Values

The University of Kentucky is guided by its core values:

- Integrity
- Excellence
- Mutual Respect and Human Dignity

- Diversity and Inclusion
- Academic Freedom
- Shared Governance
- Work-life Sensitivity
- Civic Engagement
- Social Responsibility

The five goals are:

1. Prepare Students for Leading Roles in an Innovation-driven Economy and Global Society
2. Promote Research and Creative Work to Increase the Intellectual, Social, and Economic Capital of Kentucky and the World Beyond its Borders
3. Develop the Human and Physical Resources of the University to Achieve the Institution's Top 20 Goals
4. Promote Diversity and Inclusion
5. Improve the Quality of Life of Kentuckians through Engagement, Outreach and Service

A copy of the complete 2009-2014 Strategic Plan can be found at:

http://www.uky.edu/Provost/strategic_planning/mission.htm

With these statements of the missions of the Department of Economics, the Gatton College of Business and Economics, and the University of Kentucky and the strategic plans of all three as well, the remainder of the study is devoted to providing information to assist others in evaluating the success of the Department in meeting its mission as well to offer our assessment of how well the Department has done in meeting its mission during this period.

3 Research

3.A Scholarly Publications

Research activity is evidenced in a variety of ways. Among them are (a) publications in refereed academic journals, monographs or books published by reputable academic presses and chapters in those books; (b) extramural research funding; (c) presentations of academic research in academic conferences, organized workshops at academic or research organizations; (d) research citations in refereed journals; (e) presence of active workshop series at the Department; (f) professional service such as serving as referee to refereed academic journals, reviewing research proposals for competitively-awarded extramural research funding, book review, serving in editorial capacity for refereed journals.

Journal Articles

During the period under review, 2004-2010, 85% of the faculty (23 out of 27) authored or co-authored published articles in refereed academic journals. This accomplishment is notable in light of the fact that four faculty members hold appointments with primary responsibilities of teaching, three of whom did not publish. This compares favorably with 81% published in academic journals for the previous review period, 1997-2003. *Table A.3.1* (in *Appendix A.3*) lists all publications during the review period. The list contains a total of 142 articles in refereed journals, 15 of which are forthcoming.

Table 3.1 summarizes the flow of publications in academic journals.

Table 3.1: Number of Refereed Journal Articles, by Year and Journal Ranking

Category	1997-2003 ^d	2004	2005	2006	2007	2008	2009	2010	2004-2010	Forthcoming
Top 10 ^a	12	1	2	1	1	2	1	3	11	1
Top 50 ^a	62	7	8	7	5	11	6	14	58	3
Top 5 ^b	9	1	2	1	1	-	1	-	6	-
Top 20 ^b	41	6	7	6	5	6	4	6	40	4
All ^c	140	22	13	21	15	17	15	24	127	15

^a Top 10 and Top 50 journal lists are from the Waller Committee Report, 2001. The Top 50 counts include the Top 10.

^b These lists of journals used by the Gatton College of Business and Economics in the University Goals Report, April 4, 2003. The Top 20 counts include the Top 5.

^c This total includes all journals and does not count articles more than once. It is not the sum of any combination of rows above.

^d The 1997-2003 count includes articles that were published by UK faculty during the period. It includes publications by faculty who were no longer at UK in 2003-2004. This table is included for comparison to a similar table in the 2004 self-study.

Jointly authored articles have been counted only once. Excluding the articles that are forthcoming, there have been, an average of 18.1 publications per year. This rate is down slightly from the rate of 20 per year for the previous review period. However, the rate of publications has been relatively stable over the past 19 years, 1992-2010. *Table 3.1* and the related discussion do not account for changes in the number of faculty, but per faculty publications will be addressed below after a discussion of journal quality.

In 2001, the Department of Economics appointed a committee chaired by Endowed Chair Christopher Waller, hereafter referred to as the Waller Committee, to identify top twenty journals in economics.² After extensive research and discussion the committee concluded “The Department of Economics should have a Top 50 list of journals rather than a Top 20 list in order to be comparable to the other schools/areas in the Gatton College of Business and Economics.” This conclusion was based largely on the fact that there are more than 200 refereed, academic, economics journals and more than 8,000 academic economists in the U.S. In addition, economists outside the U.S. also publish in these journals. The list of “Top 10” economics journals is reproduced in *Table 3.2* with the list of journals 11 – 50 in *Table 3.3*.

*Table 3.2: Journal Listing from Waller Committee Report, 2001
Top 10 Economics Journals (in alphabetical order)*

American Economic Review ^g
Econometrica ^g
Economic Journal
Journal of Econometrics
Journal of Economic Theory
Journal of Political Economy ^g
Journal of the American Statistical Society*
Quarterly Journal of Economics ^g
Review of Economic Studies
Review of Economics And Statistics ^g

*All journals ranked in the top 10 in the Waller report are ranked in the top 10 in the Kalaitzidakis et al. (2010) study except for the *Journal of the American Statistical Society*.

² Ad Hoc Committee on Journal Rankings (Chris Waller - chair, Mukhtar Ali, Mark Berger, John Garen, and William Hoyt), Department of Economics, University of Kentucky. April 20, 2001. This report was formally adopted at a department faculty meeting on April 27, 2001.

*Table 3.3: Journal Listing from Waller Committee Report, 2001
11-50 Economics Journals (in alphabetical order)*

Applied Economics
Canadian Journal of Economics
Econometric Theory
Economic Inquiry ^g
Economic Theory
Economica
Economics Letters
European Economic Review
Games And Economic Behavior
Health Economics
Industrial and Labor Relations Review ^g
International Economic Review ^g
International Journal of Industrial Organization
Journal Business and Economic Statistics ^g
Journal Environmental Economics and Management ^g
Journal of Applied Economics
Journal of Comparative Economics
Journal of Development Economics
Journal of Economic Behavior and Organization
Journal of Economic Literature
Journal of Economic Perspectives
Journal of Health Economics
Journal of Human Resources ^g
Journal of Industrial Economics
Journal of International Economics ^g
Journal of Labor Economics ^g
Journal of Law and Economics ^g
Journal of Law, Economics and Organization
Journal of Mathematical Economics
Journal of Monetary Economics ^g
Journal of Money Credit and Banking ^g
Journal of Public Economics ^g
Journal of Risk and Uncertainty
Journal of Urban Economics ^g
Land Economics
Oxford Bulletin of Economics and Statistics
Public Choice
Rand Journal of Economics
Regional Science and Urban Economics
Southern Economic Journal ^g

In addition to the Waller Committee Report, there have been lists of “Top Five” and “Six through Twenty” list of journals which the College used for University Goals Report (April 4, 2003). In our evaluation of the research quality, lists of journals that appear in Waller Committee Report as well as those in the Gatton College’s University Goals Report were used to identify “top tier” journals. All top five journals in the Goals Report are on the top 10 Waller list and are marked with a lower case g in *Table 3.2*. All of the next 15 in the Goals Report are on the top 50 Waller list and marked with a lower case g. *Journal of Econometrics* is on the top 10 Waller list. The lists from the Waller Committee Report are better than the lists in the Goals Report for the reasons stated in the Waller Committee Report, but the lists from the Goals Report are retained for ease of comparison with previous self study reports.

The Waller Committee Report was made ten years ago, but several recent related studies indicate it is useful for current evaluation. The most recent study available is Kalaitzidakis et al. (2010) which ranks 209 refereed economics journals by citations.³ *Table 1* from their study is shown in *Appendix A.3.2* for reference. Nine of the Top 10 from the Waller report are in the top 10 in the 2010 study. The only journal that is not included in their top 10 is *Journal of the American Statistical Association*, that Kalaitzidakis et al. did not consider an economics journal. It was included in the Waller top 10 because it is a prestigious outlet for econometric research.⁴ Seventy percent (28 of 40) of the next 40 journals in the Waller report are also in the next 40 of the more recent study. The lowest-ranked journals in the Waller report 11-50 list are *Health Economics* (76), *Journal of Mathematical Economics* (80), and *Land Economics* (92), all three of which are respectable field journals.

Publications have also appeared in five other journals (*Journal of Corporate Finance*, *Journal of International Money and Finance*, *Managerial and Decision Economics*, *National Tax Journal*, *Real Estate Economics*, which is the new title for the *Journal of the American Real Estate and Urban Economics Association*) which are outside the “Top Five” and “Six through Twenty” lists but in the Six through Twenty list (See Gatton College’s University Goals Report, April 4, 2003) for other areas in the Gatton College. These publications are included in the “Six through Twenty” count.

Table 3.1 above shows publications by all faculty in the Department and makes comparisons over time. Another meaningful comparison is for publications by Department faculty at the end of the last review period and the end of this current review period and includes only publications while the faculty are at the University of Kentucky. This comparison excludes faculty who are not at UK at the time of the self study and excludes publications prior to the individual coming to

³ Pantelis Kalaitzidakis, Theofanis P. Mamuneas and Thanasis Stengos. “An Updated Ranking of Academic Journals in Economics” Rimini Center for Economic Analysis Working Paper WP 10-15 (April 2010) Rimini, Italy. This paper updates their “Rankings of Academic Journals and Institutions in Economics” *Journal of the European Economic Association* 1 (December 2003): 1346-1366.

⁴ Additional evidence that the Waller Committee Report is still useful is found in another recent study, Kristie M. Engemann and Howard J. Wall “A Journal Ranking for the Ambitious Economist” *Federal Reserve Bank of St. Louis Review* 91 (May/June 2009): 127-139. They rank journals based on citations in a short list of top general interest journals in economics. They are: *American Economic Review*, *Econometrica*, *Economic Journal*, *Journal of Political Economy*, *Quarterly Journal of Economics*, *Review of Economic Studies*, and *Review of Economics and Statistics*. All six are included in the Waller top 10.

UK. In addition, as we discuss in more detail later, the size of the faculty, particularly the primary regular appointments, varies over time. In 1997 the faculty included 21 primary, regular appointments, decreased to only 14 primary, regular appointments in 2003-2004, and increased to 17 during the current period, 2010-2011. Given the change in this core research faculty in the Department comparison in publication trends should account for the changes in department size.

Table 3.4 compares articles published by all Department faculty at the end of the two review periods and includes only articles published while the individual is at UK. The number of articles published increased in each of the three categories from between 11% and 32%. Over the seven year period the size of the faculty increased 31% with the addition of three primary and three joint appointments. The net result of these changes is that the number of articles per faculty member actually decreased about 15% in the two top categories and remained about the same for all articles per faculty member. The changes might be characterized as an increase in articles published, a slight decrease in top articles published per faculty member, and essentially no change in total articles published per faculty member.

Table 3.4 Trends in Publication of Articles by All Faculty except Lecturers^a, 2003-2004 to 2009-2010. Publications are while Faculty are at the University of Kentucky

	2003-2004 Faculty published 1997-2003	2010-2011 Faculty published 2004-2010	Change	Percentage Change
Top 10 Articles	9	10	+1	+11%
Top 50 Articles ^b	55	61	+6	+11%
All Articles ^b	105	139	+34	+32%
Number of Faculty ^c	19	25	+6	+31%
Top 10 Articles/Faculty	0.47	0.40	-0.07	-15%
Top 50 Articles/Faculty	2.89	2.44	-0.45	-16%
All Articles /Faculty	5.53	5.56	+0.03	+1%

^a For 2003-2004 one lecturer and one visiting professor are omitted. For 2010-2011 two lecturers and one visiting professor are omitted.

^b Top 50 includes Top 10. All includes Top 10 and Top 50.

^c During the review period faculty turnover produced a net addition of three with primary appointments and three with joint appointments. The Resources of the Department section below give more information on faculty resources.

Table 3.5 is similar to *Table 3.4* above, but covers only faculty in the Regular Title Series with primary appointments in the Department of Economics. The number of articles published increased substantially from 5 to 8 in the Top 10 category (+60%), decreased slightly for Top 50 articles, and increased slightly for all articles. The number of faculty with primary, regular title series appointments increased from 14 to 17, an increase of 21%. The net result of these changes

is that Top 10 articles published per faculty member increased by 31%, while Top 50 articles per faculty member decreased by 24% and all articles per faculty member decreased slightly (14%).

The changes might be characterized as a substantial increase (+60%) in Top 10 articles published, little change in other articles, a substantial increase (+31%) in Top 10 articles per faculty member, a substantial decrease (-24%) in Top 50 articles published per faculty member, and a slight decrease (-14%) total articles published per faculty member.

Table 3.5: Trends in Faculty Publication of Articles, 2003-04 to 2010-11, Regular Title Series with Primary Appointment in the Department

	2003-04 Faculty published 1997-2003	2010-11 Faculty published 2004-2010	Change	Percentage Change
Top 10 Articles	5	8	+3	+60%
Top 50 Articles ^a	42	39	-3	-7%
All Articles	75	78	+3	+4%
Number of Faculty	14	17	+3	+21%
Top 10 Articles/Faculty	0.36	0.47	+0.11	+31%
Top 50 Articles/Faculty ^a	3.00	2.29	-0.71	-24%
All Articles /Faculty	5.36	4.59	-0.77	-14%

^a Top 50 includes Top 10. All includes Top 10 and Top 50.

Books

In addition to peer-reviewed journal articles, faculty have published research in the form of books and book chapters.

The three books are: (1) Ziliak, James P. *Welfare Reform and its Long-Term Consequences for America's Poor*, Editor, Cambridge, UK: Cambridge University Press, 2009, (2) Jolliffe, Dean, and James P. Ziliak. *Income Volatility and Food Assistance in the United States*, Co-Editors, Kalamazoo, MI: W.E. Upjohn Institute, 2008, and (3) Hoyt, Gail and KimMarie McGoldrick, co-editors. *The International Handbook on Teaching and Learning in Economics*, Edward Elgar Publishing (forthcoming 2012).

Chapters in Books

The 25 book chapters have been written by eleven different faculty members and appeared in books published by 12 different presses. They are Blackwell, Cambridge University Press, Edward Elgar, Emerald Press, Lincoln Institute, MIT Press, Nova Science Publishers, Oxford

University Press, Russell Sage Foundation, University of Calgary Press, University of Chicago Press, and Upjohn Institute Press.

These books and chapters as well as the entries by three faculty in the New Palgrave Dictionary Online are also part of scholarly productivity. They are listed along with journal articles in *Appendix Table A.3.1*.

3.B Funded Research

Department faculty have been part of securing 61 external grants during the 2004-2010 period. The complete list of grants based on information in faculty curriculum vitae is shown in *Table 3.A.2* in *Appendix A.3*. The number of grants per year is approximately 9, which is substantially less than 17 per year during the 1997-2003 period and similar to the 11 grants per year in the 1992-1996 review period. There were 23 federally- funded grants during 2004-2010 compared to 33 in the 1997-2003 review period, and 20 during the preceding review period 1992-1996. The decrease in the number of grants is probably best explained by the Great Recession that began in 2007, the middle of the review period. The recession affected federal, state, and local governments, foundations, and businesses, all of which are sources of grant funding. The grants listed in *Appendix A.3* show that Department faculty have been actively involved in grants brought in through the Department and grants brought in through other units on campus. The other campus units include the College of Nursing, College of Pharmacy, Department of Agricultural Economics, Martin School of Public Policy and Administration, and Sloan Center for a Sustainable Aluminum Industry.

Within the period of our review, we have also determined the value of grants received by the Department faculty that were brought in through the two centers in the Department. *Table 3.6* and *Figure 3.1* show funding for grants for which Department of Economics faculty were the Principal or Co-Principal Investigators and for which the grant was administered through the Center for Business and Economic Research or the UK Center for Poverty Research. Both centers are part of the Department. The information about funding comes from the two centers. Funding sources include Federal Reserve Bank of Cleveland, Kentucky Cabinet for Economic Development, Kentucky Cabinet for Education, Kentucky Cabinet for Health and Family Services, Kentucky Community and Technical College System, Kentucky Department of Corrections, Meals on Wheels Association of America, Merck Foundation, Spencer Foundation, Upjohn Institute for Employment Research, U.S. Department of Agriculture, U.S. Department of Health and Human Services, and U.S. Department of Labor among others.

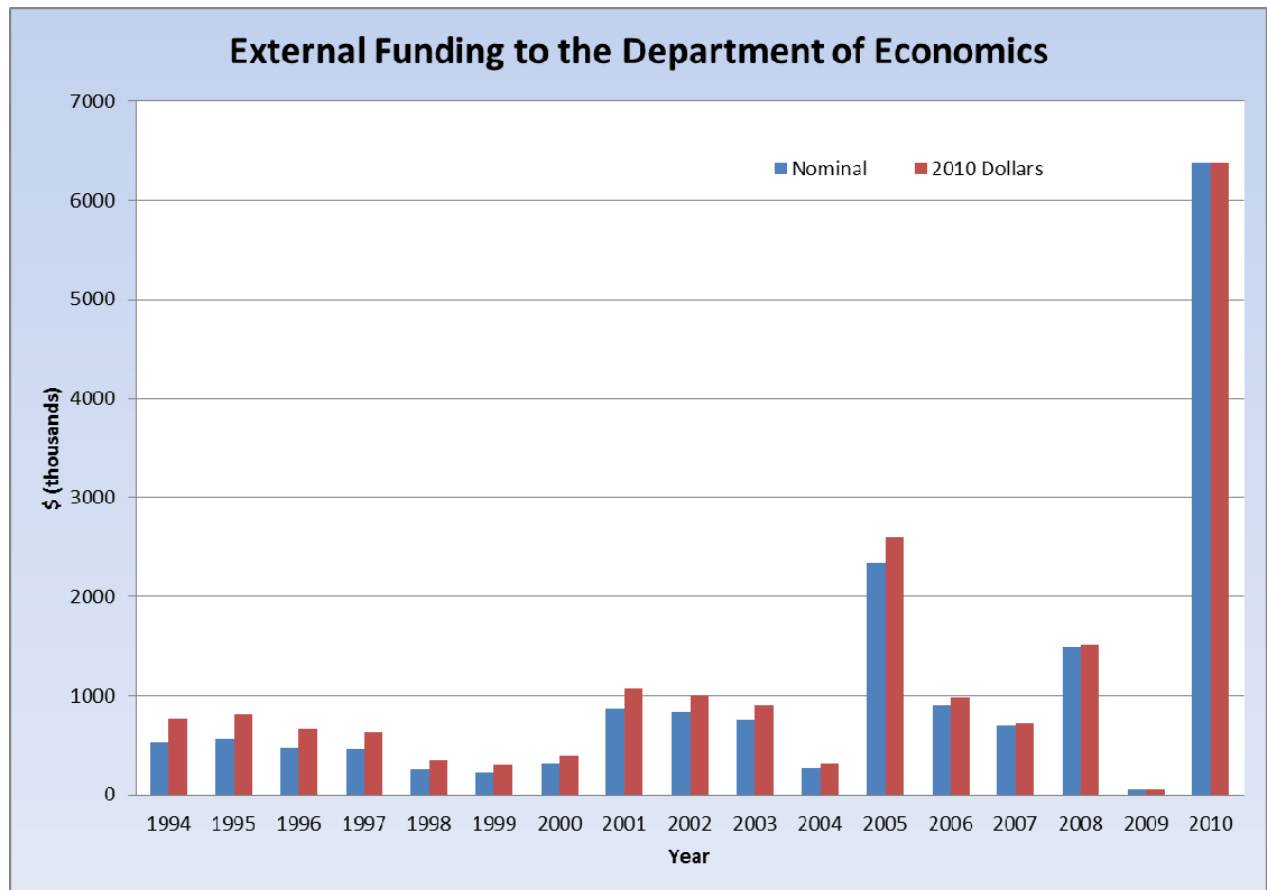
Table 3.6: External Funding to the Department of Economics with Department Principal Investigator or Co-Principal Investigator (thousands of dollars)

Year	Amount (thousands of current year\$)	Amount (thousands of constant 2010\$)
1994	523	770
1995	569	814
1996	474	659
1997	464	630
1998	260	348
1999	227	297
2000	310	393
2001	868	1,069
2002	832	1,008
2003	756	896
2004	268	309
2005	2,336	2,608
2006	913	988
2007	697	733
2008	1,500	1,519
2009	55	56
2010	6,378	6,378

In contrast to the decline in the number of grants that faculty have received overall, the increase in funding brought by faculty through the Center for Business and Economic Research and the Center for Poverty Research has been huge. The total amount of funded research during the previous review period, 1997-2003 was approximately \$3,717,000. The total amount of funded research for the current review period, 2004-2010 was approximately \$12,147,000. The \$8,430,000 increase is approximately 3.3 times as great as funding in the previous period. The story is much the same if we measure the increase in constant dollars to account for inflation over the 14 years. In constant 2010 dollars, the total amount of funded research during the previous review period was approximately \$4,641,000. In constant 2010 dollars, the total amount of funded research during the current review period is approximately \$12,672,000. In constant 2010 dollars, the \$8,031,000 increase is approximately 2.7 times as great as funding in the previous period.⁵ Much of the increase in funding can be attributed to the growth of the UK Center for Poverty Research that was established in October, 2002, toward the end of the previous review period. During the current review period, 2004-2010, \$9,932,497, or approximately 82%, of the funded research brought through the Department was brought in through the Center for Poverty Research. Clearly the emergence of this center has been a major development in the Department. The success of this center has more than offset declines elsewhere.

⁵ Funding amounts are converted from current to 2010 dollars using the CPI Inflation calculator, see http://www.bls.gov/data/inflation_calculator.htm.

Figure 3.1: External Funding to the Department of Economics with Department Principal or Co-Principal Investigator, by Year 1994-2010 in Current and 2010 Dollars



3.C Research Presentations

Faculty members have been very active in presenting their research to academic conferences and workshops. There have been 274 presentations (about 39 presentations per year) over the review period, 2004-2010. These conferences vary a great deal in terms of their affiliations and scopes. Most of them are high quality international, national, or regional conferences. There were 69 presentations at the conferences organized by national or international associations. Of particular note is that a number of faculty have presented their works at workshops or seminars organized by prestigious universities, research institutes, and research organizations such as the Australian National University, Brookings Institution, Cornell University, Duke University, Harvard University, National Bureau of Economic Research, Northwestern University, Princeton University, Queens University, Stockholm School of Economics, Stanford Institute for Theoretical Economics, University of British Columbia, University of California-Berkeley, University of California-Irvine, University of Munich, and University of Pampeu Fabra (Barcelona). Thirteen keynote addresses or plenary presentations were given by faculty at locations around the globe over the seven year period. A complete list of presentations during the period of review is found in *Table A.3.3* in *Appendix A.3*.

3.D Research Citations

Citations are a measure of quality of research. They reflect how much research in the profession draws on research done by Department faculty. *Table 3.7* shows citation counts by faculty in the Department in 2010-2011 for the current review period, 2004-2010, and for career. The search for citations was done in February-March, 2011. Citations for coauthored works are credited to each coauthor and are not divided among them. Only citations that are traceable to entries on the faculty member's CV are counted.

The primary source of citations is the ISI Web of Knowledge available electronically through the UK library < <http://www.uky.edu/Libraries/dbsearch.php> >. The search for these citations was done in February-March, 2011 and includes citations through and including 2010. An advantage of the Web of Science citations is that only peer-reviewed journals included in Web of Science (all data bases) are counted. Only citations that are traceable to articles and books on the faculty member's CV are counted and usually only for articles. Citations to unpublished working papers are sometime listed in the personal citation lists of faculty members, but are not counted for the totals in this table. Citations by the author and coauthors of each article, self citations, are not counted. Citations for coauthored works are credited to each coauthor and are not divided among them.

Table 3.7 shows that faculty research has a considerable impact as measured by the Web of Knowledge citation count. During the 2004-2010 period, ten faculty members (37%) had their research cited more than 100 times. More than half of Department faculty (52%) had their research cited more than 50 times during the review period. The mean (median) number of citations during the review period is 92 (60). Eight faculty members (30%) have more than 250 career citations. The mean (median) number of career citations is 186 (95). Not shown in the table is that 17 (63%) faculty have at least one article that has been cited 20 or more times and that includes *all* tenured faculty. Five (19%) have at least five articles that have been cited at least 20 times.

Most Web of Knowledge citations are in economics journals or journals closely related to economics. One exception is citations for C. Jill Stowe, Assistant Professor of Agricultural Economics and Economics (joint), who does research in behavioral economics. Most of the 122 citations to her research are in neuroscience journals and 17 are in economics journals. All the Web of Science citations have been counted for purposes of this self-study.

During this review period, of Department faculty with primary appointments and with Distributions of Effort that reflect a substantial commitment to research, six faculty (of 18 or 33%) had their research cited more than 100 times, ten (of 18 or 56%) had their research cited more than 50 times. The mean (median) number of citations during the review period is 92 (63). Five (of 18 or 28%) had more than 250 career citations. The mean (median) number of career citations is 171 (100). Citations for faculty with primary, research appointments are similar to the number of citations for all faculty including joint and teaching appointments.

During the previous review period, 1997-2003, the numbers for citations are similar despite considerable change in Department size and composition. For faculty with primary, research

appointments, ten (55%) had their research cited more than 50 times, six (33%) had their research cited more than 100 times, and six (33%) had more than 250 career citations.

Table 3.7 Faculty Citations, 2004-2010 and Career, Web of Knowledge and Google

Faculty Member	Rank	Web of Knowledge Citations		Google Scholar
		2004-2010	Career	Career
Ahn, Tom	Assistant Professor	0	0	25
Bagh, Adib	Assistant Professor	6	8	44
Blomquist, Glenn	Professor	388	878	2685
Bollinger, Christopher	Professor	109	142	587
Butler, J.S.	Professor (joint)	199	488	1612
Davis, Alison F.	Associate (joint)	0	0	0
Ederington, Josh	Associate Professor	92	95	578
Eike, Ann	Lecturer	0	0	3
Fackler, James	Professor	13	104	287
Garen, John	Professor	158	388	1374
Gillette, J. Robert	Associate (special title)	0	0	0
Gulla, Darrin	Lecturer	0	0	0
Hoyt, Gail	Professor (special title)	2	13	45
Hoyt, William	Professor (joint)	116	263	861
Jepsen, Christopher	Assistant (special title)	60	61	439
Kim, Yoonbai	Associate Professor	36	124	582
Minier, Jenny	Associate Professor	65	66	578
Sandford, Jeremy	Assistant Professor	0	0	5
Scott, Frank	Professor	137	277	845
Shea, Paul	Assistant Professor	0	0	0
Stowe, C. Jill	Assistant (joint)	122	122	332
Toma, Mark	Associate Professor	13	82	222
Troske, Kenneth	Professor	278	458	2940
Wildasin, David	Professor (joint)	385	1045	5243
Yelowitz, Aaron	Associate Professor	95	136	758
Yu, Jihai	Assistant Professor	9	9	146
Ziliak, James	Professor	194	252	1468

A secondary source of citations is Google Scholar. Two advantages of Google Scholar citations are that it is more current because “publication” and citation lags are shorter than for the Web of Knowledge and that it is more inclusive because citations to working papers and books are counted as well as citations in journals not counted by Web of Knowledge. Our Google Scholar citation counts are greater than Web of Knowledge counts because (1) working papers and books are counted, (2) citations in all journals and working papers and books are counted, (3) the publication and citation lags are shorter, (4) self citations are not purged from this count, and (5) the search for citations was done in March, 2011 and includes citations up through that month.

Google Scholar citations are shown in *Table 3.7* to provide a more up-to-date and more inclusive count. Nearly half (48%) of all department faculty have at least 500 Google career citations. Six (22%) have at least 1,000 career citations and three (11%) have at least 2,000 citations. The mean (median) number of Google career citations is 802 (439). As expected the number of Google citations is greater than the corresponding number of Web of Knowledge citations. The mean (median) number of Google citations is 4.3 (4.6) times the mean (median) number of Web of Science citations. Google citations are particularly important for assistant professors and new associate professors who have not been in the profession long are unlikely to have many citations due to publication lags. The mean (median) number of career Google citations for assistant professors is 142 (44) and is 5.0 (5.5) times the number of career Web of Knowledge citations.

3.E *Workshop and Seminar Series*

The Department has actively organized several workshops. Among them have been (a) Mark C. Berger Applied Microeconomics Workshop, (b) Macroeconomics Workshop, (c) University of Kentucky Center for Poverty Research Workshop, and (d) Annual Teaching Economics Workshop. The Applied Microeconomics and Macroeconomics workshops have been a tradition in the Department. Both have met on a regular basis during the academic year usually weekly for the applied micro workshop and about every other week for the macro workshop. Beginning with Fall 2007 semester the two workshops were combined into one department seminar series. The Poverty Research Center Seminar series was established in 2003. UKCPR seminars usually are held jointly with the department seminar series when the speaker is an economist. Others are held separately. Some department workshops are held jointly with the Martin School of Public Policy and Administration. The Teaching Workshop has been hosted in the spring of each year for the last 16 years. In each of these workshops, research is routinely presented by invited prominent outside researchers, departmental faculty, graduate students and other UK faculty. Visits from scholars outside the University provide good exposure for the Department and College to the academic community outside the University. They have provided opportunities for the faculty and graduate students not only to remain current on research topics but also to collaborate on research with outside scholars. In addition, they have allowed the outside scholars to know the Department's research activities. *Table 3.8* includes a list of outside speakers for a representative year, 2010.

Table 3.8: Outside Workshop and Seminar Speakers, 2010

Speaker	Affiliation
Brain Jacob	University of Michigan
Bill Sandholm	University of Wisconsin (joint with Math Department)
Brad Humphries	University of Alberta
Chris Wildeman	Yale University (joint with UKCPR)
David Figlio	Northwestern University (joint with Martin School)
Kerwin Charles	University of Chicago (joint with UKCPR)
Carolyn Heinrich	University of Wisconsin (joint with Martin School)
Jeffrey Lacker	Federal Reserve Bank of Richmond (joint with KEA)
Josh Pinkston	University of Louisville
Marla Ripoll	University of Pittsburgh

Randall Walsh		University of Pittsburgh (joint with Martin School)
Hendrik Wolff		University of Washington
William Greene		New York University
Enrico Moretti		University of California –Berkeley (joint with UKCPR)
Seth Sanders		Duke University (joint with UKCPR)
Diane Whitmore Schanzenbach		Northwestern University (joint with UKCPR)
Dwight Lee		Southern Methodist University
William Evans		Notre Dame University (joint with UKCPR)

Notable workshop speakers during this review period excluding 2010 include Robert Moffitt (Johns Hopkins, editor of the *American Economic Review*), Amitabh Chandra (UK PhD at Dartmouth, now Harvard), Holger Sieg (Carnegie Mellon), Michael Greenstone (MIT), Janet Currie (UCLA, now Columbia), Barry Eichengreen (California–Berkeley), Jay Wilson (Michigan State), David Autor (MIT), Don Kenkel (UK undergrad now at Cornell), Joe Aldy (Resources for the Future), Peter Acidiacono (Duke), Joe Altonji (Yale), Klara Sabirianova Peter (UK PhD at Georgia State, now UNC-Chapel Hill), Erzo Luttmer (Harvard), Tim Conley (Chicago), Matt Kahn (UCLA), Peter Howitt (Brown), and Richard Burkhauser (Cornell).

Workshops have been fertile ground to develop and nurture research ideas by the faculty and graduate students. This is especially true for workshops in which the research papers are in progress, i.e., in preparation for submission to a refereed journal.

3.F Professional Service

The information received from faculty correspondence shows that faculty, during the review period 2004-2010, having participated vigorously in professional service by serving as referees to refereed journals, reviewing extramural grant proposals, serving as editors or on editorial boards for refereed journals, serving as outside reviewers on promotion at other universities, and taking on other roles. Faculty served as referees to numerous journals including many of the top journals in the profession. Faculty members have reviewed papers for all but one (*Journal of Economic Theory*) of the Top Ten journals listed in *Table 3.2* and 33 of the next 40 listed in *Table 3.3*.

Faculty reviewed a number of extramural grant proposals and served on several grant review panels. Among them are such prestigious grant-awarding organizations as the Fulbright Programs, National Science Foundation, Robert Wood Johnson Foundation, Social Science and Humanities Research Council of Canada, and Swiss National Science Foundation.

Faculty serve or have served as editors, co-editors, associate editors, or on editorial boards for a number of journals during the current review period. Among them are *Canadian Journal of Economics*, *CESifo Economic Studies (Editor)*, *European Economic Review*, *Finanzarchiv*, *German Economic Review*, *International Tax and Public Finance*, *Journal of Econometric Methods*, *Journal of Economic Policy Reform*, *Journal of Economics and Finance*, *Journal of Labor Economics*, *Journal of Public Economics*, *Journal of Public Economic Theory*, *Journal of Regional Science*, *Journal of Risk and Uncertainty*, *Journal of Urban Economics*, *National Tax*

Journal, Regional Science and Urban Economics, Review of Economics of the Household, Review of International Economics, and Southern Economic Journal (Co-Editor).

Faculty have served on committees for the American Society of Health Economists, Association of Environmental and Resource Economists, International Health Economics Association, International Institute for Public Finance, National Association of Schools of Public Administration and Affairs, National Research Council, National Tax Association, and Society of Labor Economists.

Notably, Kenneth Troske served as a Member of the U.S. Congressional Oversight Panel from May 2010 through April 2011.

3.G Faculty Assessment of Research Environment

As mentioned in *Section I*, in conjunction with the self-study, a survey of the faculty was undertaken in April, 2011.⁶ The purpose of the survey was to allow the faculty a vehicle in which their views and thoughts about the Department could be expressed. Questions asked specifically about the research environment were:

Question 1: What does the Department (and College and University) do that enhances your research program?

Summary of Responses: Research is enhanced by good colleagues, department workshops, conference travel support, and summer funding.

Specific, quoted and paraphrased responses include:

Good colleagues and our seminar series add to my research productivity.

Colleagues in the department to talk with about our research and economic policy issues. Workshops that allow us to bring in people doing research related to our own and also give us the opportunity to learn what is going on in economics outside our own areas of expertise. Travel support to present our own research and participate in meetings to stay connected with the discipline.

Department workshops, travel support, and decent computing. Teaching loads are reasonable although there are lower-ranked places that have lighter loads for active researchers.

Summer grants and travel support.

Summer research grants and travel support are greatly appreciated. My research has been acknowledged fairly through merit review procedures.

Shielding from administrative work. Summer funding is helpful.

⁶ The survey instrument for the faculty survey can be found in *Appendix A.3*.

Being able to attend every conference I have asked to attend. This has promoted my research program significantly.

Teaching 2-3 times per week, minimal service commitments, and sufficient funds for travel.

Encourages, recognizes, and credits joint research projects. Encourages grant applications without stifling everything else.

Question 2: What could be done to improve research productivity?

Summary of Responses: Research productivity could be enhanced by reducing the administrative burden on some of the most productive researchers and reducing teaching loads in addition to offering preferred schedules for the most productive researchers.

Specific, quoted and paraphrased responses include:

Less administrative burden. Too many of our most productive faculty get stuck doing major administrative work.

Fewer service commitments and a better balance of service activities across everyone in the department.

Need to get incentives right. My feeling is that there are members of the department who are certainly capable of high-quality research programs but are not as research active as we would like—implying incentives are not correct. Currently lack funding to provide direct monetary incentives, but seems we could adjust teaching load and schedules (preferred courses/times) to reward research activity.

Research-active faculty members should not generally be required to teach 3 days a week. Having blocks of time 3 days a week is much more helpful for research than having those blocks of time 2 days a week, in addition to the time needed to travel to conferences or seminars at other departments or even to have speakers in to UK on a Fridays.

More staff help for event and workshop planning. Faculty doing so pulls time out of research. Summer support would help. Lighter teaching loads for active researchers.

Lighter teaching loads, particularly for assistant professors, are the first/only things that come to mind.

As mentioned previously, I think department should consider allocating courses based on past research productivity.

Faculty brown bags and a department newsletter to announce faculty research activities might be cheap way of putting more of a focus on research.

Financial incentive will help. We may need more collegiality, i.e., more partying.

Besides recruiting more faculty, better computing resources would help. Some desktops are inadequate for some Stata and Matlab programs. If a dedicated server is impossible, the ability to upgrade to a better machine sooner would be immensely helpful.

Question 3: Are you satisfied with how research is used in merit review and promotion decisions? How might procedures be improved?

Summary of Responses: Faculty are mostly satisfied with merit review now that it is done primarily at the department level. Faculty are dissatisfied with several members of the College P&T Committee who do not evaluate economics publications well and substitute their own views. Some faculty are dissatisfied in that they perceive that review ratings are compressed with research being rewarded relatively too much for faculty who do not publish much.

Specific, quoted and paraphrased responses include:

Yes (two responses)

Yes, however several members of College P&T Committee don't know how to interpret the value of our publications.

Yes, for merit review as it is done now. When merit review was centralized and not done in the department economics publications were undervalued. We still have problems with faculty outside the Department who are members of the College P&T Committee who readily substitute their own views for the informed judgment of members of the Department and the market for economists.

Mostly yes, but people who have not published in the last 5 years or who have a long history of very low publication productivity need to have more serious sanctions imposed.

Scores are too non-linear. For example, a single publication might add up to 3 or 4 points to someone on the low-end of the research scale, however the identical publication would only add around ½ a point to someone on the top end of the research scale. This type of score compression doesn't get the incentives right.

Okay, but we do not reward ancillary activities related to research or otherwise, e.g., organizing sessions at conferences, organizing workshops, speaking to the public on economics, serving as discussant, involvement in professional organizations, or on-campus activities.

Communication through written documents is a very poor instrument unless we all know what others are doing in their research and other things. Maybe, the evaluation committee members have a discussion with individual faculty. If it is too much, we can try for junior members at least.

In addition, of course, questions regarding the “Overall Evaluation of the Department”, offer some insights into the thoughts of the faculty on the research environment. These questions include:

Question 1: In your view, what are the strengths within the Department?

Summary of responses: Quality of faculty and collegiality are highly valued. There is a strong core of faculty that is committed to research and graduate and undergraduate programs. Applied microeconomics and econometrics especially in labor and public economics are the reputational strengths of the department. The department is efficient and producing much given its small size relative to peer departments. The teaching specialists are notable strengths.

Specific, quoted and paraphrased responses include:

Good faculty. Good leadership. Strong commitment to our programs and to each other.

Great group of core faculty at different stages of their careers who contribute a lot – through various combinations of teaching, research, service, and administration – to the Department, College, University, and community overall.

Very solid current population of economists.

Get a lot of work done with a small number of people and offer a quality product despite low numbers of faculty.

Great job with the resources we have. We have many good undergraduate teachers, many who are dedicated to the graduate program, and a good core of people who work to push us ahead. Both the undergraduate and graduate programs are strong and most faculty are actively engaged in research and other professional activities.

Applied economic theory and estimation.

Applied microeconomics in public, labor, IO, health and environmental and applied econometrics

The department’s public/labor research output as its main strength.

The research environment for junior faculty is very good. Good care is taken to make sure that teaching and service commitments do not crowd out time for research.

Having strong teaching specialists allows us to give some undergrad courses that are of a much higher quality than they are at comparable schools.

Faculty quality, collegiality.

Quality and collegiality of faculty.

Very collegial – little in the way of politics or infighting

The lack of drama within the department.

Question 2: In your view, what are the weaknesses within the Department?

Summary of Responses: Too few faculty is a major concern. When faculty resources are drawn away by administrative duties or offers from other universities focus is shifting away from research activity and difficulty arises in offering our graduate and undergraduate programs. Concern exists about sufficient staff to support anything more than basic functions. Mentoring and quality of graduate students are also considered weaknesses by a number of faculty.

Specific, quotable and paraphrased responses include:

Too few faculty and too little staff.

Limited resources and too few faculty members

Lack of resources

Not enough faculty. Focus is shifting away from being active research department partly due to low faculty numbers and losing some research active faculty to administrative duties.

Way too thin regarding faculty members. It is increasingly difficult to staff the graduate program adequately. The number of people who can and will take on important administrative tasks seems to be constant or shrinking. It also would be helpful to have more young and energetic junior faculty. Staffing is an issue, too. While our staff is good and do their jobs well, they are too few in number. There needs to be more staffing help for administrative people in the department (chair, DGS, DUS) as well as for help to other faculty in organizing workshops and events. The graduate program could use a few more students to ease the difficulties in running a small program.

We've not done a good job of receiving resources from the University for the numbers of A&S students we teach. This is not entirely the fault of the Department.

Administrative support is poor, especially when it comes to reimbursement for journal submissions.

We're not doing a good job mentoring junior faculty and have a poor record of hiring assistant professors who go on to earn tenure.

We do not appear to do a good job mentoring junior faculty.

Junior faculty undervalue participation in department workshops and professional meetings and conferences.

The graduate program is struggling.

The graduate program.

Quality of graduate students

The grad program is the department's main weakness. The quality of the graduate program continues to be a disappointment.

Compared to our benchmark departments we undercompensate and overwork our graduate students and expect them to finish their PhD program in four years instead of five or six.

Macro fields in the graduate program.

The Department's reputation within the College isn't as good as it could be (not entirely the fault of the Department).

Lack of time series, which is a problem with macroeconomics and economic development.

A major problem is lack of assistance to Ph.D. students in dealing with the whole range of issues in graduate school: practical estimation, confidence, presentation of research. The students are not generally encouraged to ask questions and seek assistance in class or in developing a research career. For example, too few papers are assigned in classes. Of course, some faculty do these things, but not enough.

Some terminal associate professors who seem to have in many ways "checked out."

Question 3: If additional resources are to be received, what would be the best way to allocate these resources?

Summary of Responses: The dominant allocation would be to hire more faculty. More should be allocated to compensation for faculty, staff, and graduate students.

Specific, quotable and paraphrased responses include:

New faculty

New faculty lines if possible;

Recruit senior assistant and new associate level professors.

Additional faculty lines to hire more assistant professors.

It would be nice if Economics, the department, were large enough to support faculty in all areas in addition, of course, to the vital core of micro and macro and econometrics. The core could certainly use some additional faculty, too. It would be nice if the department could expand to match more nearly the size of our field.

Higher faculty salaries, more faculty, and better compensation for graduate students

More faculty, one more staff person, more graduate assistantships. Raises would be nice, too.

Hire in time series first, and then hire the best applied researchers available.

Increase the size of the graduate program/students and the size of the faculty

(1) New faculty, (2) Summer support, and (3) Support for fifth-year in graduate program.

Additional resources would have the most value in improving the grad program (increasing stipends, offering high stipends to “reach” students, reducing teaching loads)

The graduate program needs additional resources. Hiring one new faculty member and improving the graduate program would be preferred to hiring two new faculty members and neglecting the graduate program.

Spending it on the graduate program without significant changes to the way we recruit and retain students is pointless.

Rewarding research productivity.

Develop a cadre of on line courses to generate revenue – but need to invest up front to insure the courses are designed well.

Hire our own professional staff person to work within the department and help coordinate and develop undergraduate internships

Question 4: What resource neutral changes would you like to see in the department?

Summary of Responses: Points made are: Adjusting class schedules to allow blocks of time for faculty research; more communication mechanisms such as department newsletters, updated website, and brown bag seminars; more research assistant rather than teaching assistant graduate students, and building the research culture among graduate students.

Specific, quotable and paraphrased responses include:

We've allocated to my tastes.

- (1) Provide incentives to remain research active by adjusting teaching schedules and going back to 2-day a week teaching schedule. If other departments aren't doing the 3-day schedule why are we?
- (2) Keep web-site updated and hopefully make it better organized.
- (3) Faculty brown-bags and
- (4) Department newsletter.

Some informal newsletter as a way of letting the department occasionally know about publications, awards, dissertation defenses, etc.

Do a better job in keeping up to date our information on the College website.

Ideally, teaching two days a week would not need to be rationed. In other departments, it doesn't seem to be – classrooms are almost completely empty on MWF afternoons, and there's an experimental psychology class meeting in BE 305 on Wednesdays only from 11-1, for example. If it has to be rationed, it would be best for the Department that productive (in whatever sense) faculty members receive priority in teaching two days a week.

Allocate courses based on past research productivity.

Faculty brown bag research talks.

Identify teaching-track vs. research-track graduate students earlier and change teaching load accordingly such that research track students can be assigned as research assistants to professors.

More exchanges of teaching assistants for research assistants in the department or elsewhere.

Some adjustments to graduate student culture-attitudes about role in department, workshop attendance, and similar things.

Beef up the terminal-master's program with one additional faculty line.

Be more active in recruiting students domestically and from foreign countries using the network of alumni/former students and faculty.

Have later prelim dates for graduate program. Now they are in early June, and there is not enough time to understand difficult material and to begin to connect the dots between different topics.

Question 5: Do you feel that the Department has a good relationship with the rest of the Gatton College of Business and Economics? Is the Department involved as it should be?

Summary of Responses: Points made are: mixed views, some building of relationships, concerns about the P&T committee and the Dean's leadership

Specific, quotable and paraphrased responses include:

Yes or Yes and Yes (4 such responses) and Negative (1 response)

We have a good relationship with some of the people in the college. Not all.

We have a good relationship with most of the College except in matters related to the College P&T Committee. We are not alone in having strongly held views that are quite different from a number of colleagues who regularly serve on that committee.

There have been some strains with the Dean's office from time to time.

Depends on definition of "good". Healthy? No, the economics department does not have a healthy relationship with the rest of the college. Constrained optimum? Yes, that seems more likely.

From my perspective, the Department is minimally involved with the rest of the College and that is alright.

No, but not sure what can be done.

No, although this isn't entirely the Department's fault. Some junior people seem to have done a good job of building relationships with people throughout the College, so hopefully this will improve over time as people are tenured and gain more senior positions. A lot depends on leadership from the Dean creating opportunities for people from different departments to interact. This may improve under a new Dean.

Question 6: What are your thoughts about the standing of the Department throughout the University and with University Central Administration?

Summary of Responses: There are mixed views on how Economics is regarded; concern with coordination with Arts & Sciences given so many students study econ; and desire to be more visible.

Specific, quotable and paraphrased responses include:

The department is generally well regarded.

We are generally viewed to be a productive department.

We are involved enough throughout the University. Our image is okay, but could be better. The image of the College is not especially good, and we get tarred with that brush some. Part of the problem is the lack of a presence in and coordination with A&S. This, as we know, is not well facilitated by University administration.

It is difficult to understand why we don't receive more resources for the large number of A&S majors we have. The extent to which fault for this lies with the Department vs. the College vs. general University priorities is unclear.

We have a weird reputation. It depends on who you talk to. In the past we were seen as selfish, but that has begun to change,

I'd like to see Economics (the department, and the field) get more recognition than it does here on campus. Economics can contribute so much, to so many fields, but that potentiality is not very well-appreciated at UK, and far less has it been realized.

There is a chicken-egg problem, in this as in many such situations. Take an example: Economics has already collaborated fruitfully with Math via the math econ program, making it possible to hire a faculty member who contributes to both departments. I hope that this interdepartmental collaboration with Math continues indefinitely.

Question 7: Are you satisfied with merit review and promotion procedures? If not, what are your concerns and how might the process be improved?

Summary of Responses: There is concern about the how the P&T committee operates; appreciation for returning merit review back to departments; no raises make review process useless.

Specific, quotable and paraphrased responses include:

Yes.

Yes, the department has always been transparent about the tenure process.

It is troubling that the college P&T committee seems to regularly override department decisions.

Merit review and promotion in the Department has been done well. The College P&T Committee at times has been dysfunctional and out of touch with the rest of the University and markets.

We should go to a more traditional vote system for our tenure, although we could keep the letters.

Voting on tenure cases is okay as long as the vote is in addition to faculty letters.

The devolution of merit review back to departments and schools is a great improvement over the centralized review by the Dean's office.

There's a problem of compression in assigning scores during merit review. Almost everyone gets between a 4.5 and a 6.5. This hurts our reputation within the College, particularly during tenure and promotion cases.

Generally, they are okay. We still don't seem to have much of a way to reward excellent citizenship and work to improve the institution that does not show up as a publication.

Since there have not been any raises since I came here, the process has been purely farcical from my point of view. If there ever are raises, there is no reason to think they wouldn't be allocated fairly.

Question 8: Do you feel the Department has made progress within the seven-year period 2004-2010?

Summary of Responses: We are doing as much or more with fewer resources.

Specific, quotable and paraphrased responses include:

Yes, but progress has been made because of our ability to do a little more with a lot less over that time period.

We were in a pretty good place in 2004. It's hard to say that we are markedly better, but we have not slid backwards. It has been a lot of work to prevent that.

The department appears similar to where it was in 2004.

Not really. We certainly have tried, but constraints on resources and poor decision making at the college level have hampered that significantly. We did make some good hires.

The department became somewhat weaker over the period. Faculty size is smaller. We have only one seminar/workshop per week compared to two in the past.

The department has made progress in bringing the graduate curriculum more in line with what other schools are doing.

3.H Analysis of Strengths and Recommendations for Quality Enhancement in Research

A strength of the Department is the considerable amount of research activity for a department that is small relative to economics departments in research universities. During the period under review, 2004-2010, 85% of the faculty (23 out of 27) authored or co-authored published articles in refereed academic journals. Publication in highly-regarded, peer-reviewed journals has increased substantially during the review period while publication in all peer-reviewed articles has remained steady. Faculty have authored three books and 25 book chapters.

Faculty research has a considerable impact as measured by the Web of Knowledge citation count. During the 2004-2010 period, ten faculty members (37%) had their research cited more than 100 times, and more than half had their research cited more than 50 times. Seventeen faculty (63%) have at least one article that has been cited 20 or more times and that includes *all* tenured faculty.

Department faculty have been part of securing 61 external grants during the 2004-2010 period. Grants are typically administered by the Center for Business and Economic Research or the UK Center for Poverty Research which are both housed in the Department. Grants for which Department of Economics faculty were the Principal or Co-Principal Investigators and which were administered through one of these centers drew funding from a number of local, state, and federal sources. The total amount of funded research during the current review period is approximately \$12,672,000 (in constant 2010 dollars). The total is approximately 2.7 times as great as funding in the previous period. Much of the increase in funding can be attributed to the growth of the UK Center for Poverty Research. The emergence of this center has been a major development in the Department, and its success has more than offset declines elsewhere probably primarily due to the Great Recession.

Faculty members made 274 presentations (about 39 presentations per year) over the review period, 2004-2010. There were 69 presentations at the conferences organized by national or international associations. Thirteen keynote addresses or plenary presentations were given by faculty at locations around the globe over the seven year period.

The Department has had three active workshops: (1) Mark C. Berger Applied Microeconomics Workshop, (2) Macroeconomics Workshop, and (3) University of Kentucky Center for Poverty Research Workshop. They have been combined at times, held jointly with the Martin School of Public Policy and Administration and others on campus and met weekly.

4. *Graduate Studies*

In this section we provide a summary and description of the graduate programs offered in Economics, with our primary focus on the Ph.D. program. We provide information on the program and the experiences of our graduates from a number of different sources including surveys of graduates of our Ph.D. program and of economics departments in our benchmark institutions. In addition to describing the program, we also provide some analysis and critique of our efforts in graduate education.

A fair critique of the department's efforts in graduate education requires an understanding of the Department's goals in graduate education. For this reason we start this section with a brief summary of the Department goals for graduate education, as stated in the Department Mission. We then outline the structure of the Ph.D. program, including the coursework and exams as well as sources of funding for students. To give perspective on UK's program, we offer some comparisons of the structure of our program and funding for students to our benchmark institutions. Information on students, demographics, and background as well as measures of the quality of the entering class follow. Post-graduate experiences including placements and scholarly contributions obtained from surveys of graduate students are summarized in the next subsection. Finally, we offer some analysis and our views on how we have met our stated goals as well as some thoughts on whether or not our goals need revision.

4.A *Stated Objectives for Graduate Education*

Our strategic plan provides the background for the program objectives. The mission of the doctoral program in economics is to prepare students for successful careers in higher education, at government institutes, "think-tanks", business corporations and financial institutions; in other words in places where advanced knowledge and high level research skills are essential. To accomplish this mission, the program prepares graduates to comprehend and evaluate research, to perform research which advances knowledge, and to provide effective instruction, all within a supportive collegial environment.

The program has three major learning goals:

- (1) **Structured Reasoning Skills:** Possess knowledge of economic theory necessary to consume and produce advanced economic research as well as the ability to apply it to analyzing real world issues.
- (2): **Research Skills:** A. Possess the knowledge of field of economics sufficient to produce state-of-the-art-research. B. Acquire skills in the use of quantitative techniques utilized by the economics profession.
- (3) **Communication Skills:** Possess strong written and oral communication skills.

We also note that many of our courses serve as in an integral part of three other Ph.D. programs in the university. They are in Agricultural Economics, Business Administration, and Public Administration. In order to assess our program, we provide a background on the structure of our program, evidence on the service our program provides to other departments, characteristics of

our graduate students, placements of our students, and finally results from a survey of recent graduates.

4.B *Structure and Basic Facts about the Economics Ph.D.*

The Ph.D. program is designed to produce graduates who are qualified to teach on the college and university level, as well as engage in research and consulting for business and government. The program aims to prepare students to contribute to the advancement of economic knowledge. To attain these objectives, the program is designed to provide the student with appropriate knowledge, understanding, skills, and abilities including:

1. A thorough comprehension of economic theory;
2. Skill in the use of quantitative techniques, specifically mathematics and statistics;
3. Specialization in two sub-fields of economics;
4. Knowledge of the broad social and political background of the economic environment;
5. Experience in the development of research topics;
6. Research and writing skills that will lead to the publication of original research; and
7. Competence in communicating economic knowledge to diverse audiences.

4.B.1 *Coursework in Economics Ph.D.*

Coursework in the Economics Ph.D. falls into four categories: *Economic Theory*, *Statistics/Econometrics*, *Elective Areas*, and *Supporting Coursework*. The courses in economic theory and statistics/econometrics are the “core” courses in the program. Almost all Ph.D. students in economics have virtually the same schedule in the first year and much of the second year. The first year coursework usually consists entirely of the core courses with the majority of the Economics Ph.D. students also taking ECO 590: Introduction to Quantitative Economic Analysis I. In the second year, students typically take additional theory and econometric courses and also begin work in elective areas and supporting coursework.

In *Economic Theory*, there are six courses. Four courses are generally taken during the first year. Two courses are in microeconomics: *Economics 601*, *Advanced Microeconomic Theory*, and *ECO 701 Neoclassical Microeconomic Theory*. In addition, two courses in macroeconomics: *ECO 602: Macroeconomic Theory* and *ECO 702: Advanced Macroeconomic Theory* are generally taken in the first year. *ECO 704 General Equilibrium Theory and Welfare Analysis* is also required and generally taken in the students’ second year.

The statistics/econometric sequence consists of three courses: *ECO603: Research Methods and Procedures (or STA424G: Basic Statistical Theory I)*, *ECO703: Introduction to Econometrics I*; and *ECO706: Introduction to Econometrics II*. Most of the students choose to take *ECO 603* rather than *STA424G* in the Fall semester of their first year, taking *ECO 703* in the next semester and *ECO 706* in their second year.

All Ph.D. students are required to choose two fields of concentration and they typically take two courses in each field. The fields of concentration are generally from courses offered by the

Department of Economics, though on occasion, with consent of the student advisory committee, courses in other departments are used. The Department offers six fields of concentration: Environmental and Health Economics; Industrial Organization; International Economics; Labor Economics; Macroeconomics and Monetary Economics; and Public Economics.

Finally, nine hours of supporting work in courses not in the core and above the 500 level are required.

A minimum average of grade "B" must be attained in all courses attempted for graduate credit after being admitted to the Graduate School. Students obtaining six quality points below a "B" average will not be allowed to continue in the program.

Table 4.1 lists enrollment in the core courses in the graduate program in the Department for academic years 2006 through the current year. (Data prior to 2006 was no longer available due to the change in UK computing systems.) Enrollment in all courses except ECO 590 has been relatively stable at about 20 students each year. The decline in enrollment in ECO 590 is explained by Agricultural Economics offering an additional section of this course for their students (who are primarily Masters students). *Table 4.2* provides a breakdown of program of study for students enrolled in our Ph.D. core courses (counting across all courses). Between 40% and 50% of the students in our core courses are from programs other than economics. AGECE signifies the graduate programs in agricultural economics. BUAD signifies the Business Ph.D. program. Finance students and some Accounting students take economics courses. PUAD signifies the Martin School Public Policy and Administration program and many of these students also enroll in our core courses.

Table 4.1: Enrollment in Ph.D. Core Courses

	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
590	27	24	20	15	14
601	19	22	26	18	16
602	22	19	18	21	16
603	22	23	19	23	19
701	14	14	16	14	*
702	14	8	19	15	*
703	16	18	16	25	*
Total	134	128	134	131	65

Table 4.2 Enrollment in Core Courses by Program of Study

	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
AGEC-MS	8	14	1	7	1
AGEC-PHD	18	12	27	28	13
BUAD-PHD	19	25	23	7	10
ECON-MS	8	7	10	0	0
ECON-PHD	49	38	38	55	32
PUAD	11	10	4	14	6
Not Assigned	15	16	31	18	0
Other	6	6	0	2	3
Total	134	128	134	131	65

Other includes undergraduates, pharmacy, and masters in health policy. Not Assigned is due to problems with the university information system (SAP) and represents both Economics graduate students and graduate students in other programs.

4.B.2 Examinations in the Ph.D. Program

In the Ph.D. program students are required to pass an examination (the preliminary exam) in economic theory. The exam is generally first taken by students in June following their first year of courses. There are separate exams for microeconomic theory and macroeconomic theory, and students being required to pass both exams. If a student fails to pass either or both exams, she or he can take the exam for a second time. Students failing on a second attempt are not allowed to continue in the program.

In economics, the qualifying exam consists of a written and oral exam. The written exam is taken in one of the two elective fields chosen by the student. If the student fails the written exam, the student's Advisory Committee determines conditions under which a second exam might be administered. Failure to pass a second exam constitutes failure of the qualifying exam.

The oral exam is over the student's dissertation proposal. The oral exam is recognized by the Graduate School as the exam that qualifies the student as a Ph.D. candidate.

4.C Characteristics of Graduate Students

Table 4.3 presents characteristics of the applicant pool and subsequent admissions. The applicant pool has grown, indeed quite markedly, in recent years to 130 to 140 applicants per year. We believe two mechanisms are responsible for this phenomenon. The first is the sluggish economy, inducing more students to pursue further education, postponing entry into the labor market. The second is the *Southern Economics Journal* (2008) article ranking our program, and in particular the Public Economics field, quite highly.⁷ A large proportion (approximately 75%) of our applicant pool is international, which explains (in part) the lower scores in the Verbal component of the GRE. Although a large proportion of our applicant pool is international, our entering classes that are enrolled are approximately 80% domestic.

⁷ Therese C. Grijalva and Clifford Nowell. "A Guide to Graduate Study in Economics: Ranking Economics Departments by Fields of Expertise" 74 (April 2008): 971-996.

Although not shown in the table, approximately 30% of our applicant pool is women. (It can be difficult to identify gender during the application process). However, women are disproportionately international, with our domestic pool of women at or below 25% in most years. We strive to admit and support women in our program. Currently, 8 of our 39 active graduate students are women. Minority applications are even more difficult to identify. Despite that fact, currently two of our graduate students are African-Americans and one is Hispanic-American. We strive to recruit minorities.

In spite of the higher application rate, the characteristics of the applicant pool have not changed dramatically. Quantitative GRE scores average 745, while verbal scores average about 497. Students admitted and enrolled have slightly higher verbal scores (around 520 and 540) and slightly lower quantitative scores (about 744 and 680). This primarily reflects higher domestic composition of our admissions and enrollment pools relative to our applicant pool.

Table 4.3: Characteristics of Graduate Applicants and Students

	2004	2005	2006	2007	2008	2009	2010
Applicants	77	61	78	107	148	130	134
Domestic Applicants (%)	23	26	27	25	30	28	34
Admitted	24	24	24	15	27	23	19
Domestic Admissions (%)	58	58	71	53	74	74	79
Attending/Enrolling	8	10	8	5	7	8	8
Domestic Attendance (%)	88	80	63	40	86	88	75
GRE, Verbal, Applicants,	***	***	542	473	487	483	500
GRE, Quantitative, Applicants	***	***	734	748	749	751	744
GRE, Verbal Admitted	507	512	542	528	513	504	526
GRE, Quantitative Admitted	745	731	743	757	739	749	747
GRE, Verbal Attending	512	504	472	752	535	522	485
GRE, Quantitative Attending	735	696	672	500	703	753	735

***Missing applicant data prior to 2006 is due to UK computer system changes.

4.C.1. Funding Graduate Students Graduate student funding has been a problem and is an ongoing issue. Our students' primary funding is typically through Teaching Assistantships (TA) from the Graduate School. In a typical year approximately 60% of our students receive support through a TA. Additional fellowships, including a Kentucky Opportunity Fellowship, support other students. The two Centers in the department, the Center for Business and Economic Research and the Center for Poverty Research both support students each year with Research Assistantships. Typically four students are supported through these Centers. Students typically receive funding for 4 or 5 years of the program. We encourage students in their fifth year to seek outside funding through fellowships.

Recruiting is significantly hampered by low teaching assistant stipends (relative to comparable programs). According to the annual survey of economics departments by the American Economic Association the median stipend for a typical first-year assistantship in 2010-2011 was

\$16,300; the median at National Research Council Tier 1 and 2 departments was \$23,000.⁸ The standard assistantship stipend at UK was \$11,923. This normal stipend is 73% of the median stipend in economics and only 52% of the stipend in top programs. We utilize various fellowship supplements to attempt to remedy this deficiency; however, there are not sufficient resources for students to receive these throughout their program. This means that funding levels are often higher during first year and then reduced for additional years as students sometimes lose the ad-on fellowship. Students resent this, and feelings of "bait and switch" have been expressed.

4.D Graduate Student Placements

An important measure of our program is where our Ph.D. students obtain their first position. *Table 4.4* presents some summary statistics of our recent placements. We break placements down to three main categories: academic, government and private organizations that are not educational institutions. We further break academic into two categories: universities (with graduate programs) and colleges (primarily undergraduate programs). We typically place 5 or 6 students a year. In most years all students obtain positions. The exception is 2010 when one student did not get an acceptable offer. Of the students obtaining positions, the majority is placed in Academic positions and the majority of those are placed at Universities. These schools are typically regional state universities such as Stephen F. Austin State University, Middle Tennessee State University, East Tennessee State University, Valdosta State University, and Saginaw Valley State University. In 2007, one student placed at Centre College, a top-ranked, liberal arts college. Our government placements have been mostly in the federal government including the Food and Drug Administration, Bureau of Labor Statistics, and Bureau of Census, but we have also placed at the Kentucky Legislative Research Commission. These placements are typically considered to be good placements, on a par with academic placements at universities with graduate programs.

Table 4.4: Placements

	2004	2005	2006	2007	2008	2009	2010
Placements	7	4	4	6	6	5	5
Academic	4	3	3	6	6	3	3
University	4	3	3	5	4	3	3
College	0	0	0	1	2	0	0
Government	2	0	0	0	0	0	1
Private	1	1	1	0	0	2	1

The Department is unique in the training and mentoring that the teaching assistants receive. Two faculty, Gail Hoyt and Robert Gillette, have primary responsibility for economics principles and business and economics statistics courses that the teaching assistants teach. Each fall the second year graduate students preparing to teach participate in a weeklong workshop in which Professor Gillette and Hoyt teach fundamentals of teaching and supervise and video role playing teaching situations. They then monitor and mentor the teaching assistants throughout their teaching experiences. This program produces graduates who are experienced, confident teachers and may be responsible for the good placements of many the Department's graduates.

⁸ See Scott, Charles E., and John J. Siegfried. "American Economic Association Universal Academic Questionnaire Summary Statistics." *American Economic Review*, 101(May 2011): 664–67.

4.E Responses to Ph.D. Alumni Survey

We surveyed our alumni using an on-line survey designed by the study team. A copy of the survey instrument is included in *Appendix A.4*. A total of 39 former students replied with at least some responses. We have focused our analysis on graduates from the study period (2006-2010), which include 16 students. Note *Table 4.4* suggests there are 26 graduates during this period, implying a 61% response rate. Our respondents were 62% male and 50% had received a U.S. undergraduate degree. Analysis of all graduate periods suggests a similar response pattern.

Our questions follow our stated goals of the program (see section 4.A above). We first asked student to rate how well our program developed knowledge of economic theory necessary to read advanced papers, produce economic research and analyze real world events. *Table 4.5* displays responses to this first section of the survey:

Table 4.5: How well did our program develop knowledge of economic theory to

	Excellent	Good	Average	Fair	Poor
Read Advanced Papers	3	11	2	0	0
Produce Economic Research	1	7	6	0	2
Analyze Real world Events	2	11	1	2	0

As can be seen, the most common answer for each area was good, and at least one respondent rated us excellent. Our weakest area appears to be in developing economic theory to produce economic research. In the open response section, no particular comments were offered.

We also strive to develop research skills sufficient to produce research and utilize quantitative techniques. The responses to this question are displayed in *Table 4.6*. Again, the most common response was good, with at least 2 respondents rating us excellent. This area appears to be weaker than our theory section, with four or five students responding with average. In the open response section of the survey, three students commented that additional econometrics courses could be offered, specifically applied econometrics.

Table 4.6: Are research skills developed in our program sufficient to

	Excellent	Good	Average	Fair	Poor
Produce Research	2	7	4	1	2
Utilize quantitative techniques	4	7	5	0	0

A third goal of the program is to develop both written and oral communications skills. *Table 4.7* displays responses to these questions. Again, the most common response was good, while two students responded excellent for written and five responded excellent for oral. Development of written communications skills did receive four average responses. Overall, however, this appears to be our strongest area of these three core goals of the program.

Table 4.7: How well did the program develop your communications skills?

	Excellent	Good	Average	Fair	Poor
written	2	10	4	0	0
oral	5	9	1	1	0

The next section of the survey asked alumni to rate specific aspects of the program. In these specific areas, we appear to do much better, with at least four students rating each area as excellent. Interestingly, half the students rated core theory exams as excellent learning tools, seemingly at odds with the somewhat lower ranking of development of theory above. Overwhelmingly, students rated these areas as either excellent or good.

Table 4.8: Alumni ratings of specific areas

	Excellent	Good	Average	Fair	Poor
Were core course sufficient in content/rigor?	5	5	5	1	0
Were core theory exams effective learning tools	8	6	1	1	0
Satisfied with content/rigor field courses	6	6	3	1	0
Were field exams effective learning device	5	8	3	0	0
Did you receive appropriate guidance in finding dissertation topic	8	4	3	0	1
Did your advisor/committee provide appropriate guidance during dissertation	8	6	0	1	1
Usefulness of department seminars	5	5	4	1	1
Support/guidance in job search	4	5	4	2	1

An important measure of our program is whether our alumni will recommend our program to students interested in pursuing a Ph.D. Casual empiricism suggests this is largely true. We have recruited at least one new student each of the last five years from the recommendation of an alumnus. The results of our alumni survey support this conclusion as well. Of the sixteen respondents, twelve would recommend our program enthusiastically or very enthusiastically. Only 1 would slightly discourage a student from attending our program and two are neutral. None would actively discourage a student from attending UK for a Ph.D. These results are compiled in *Table 4.9*.

Table 4.9: Would you recommend the program

Very Enthusiastically	Enthusiastically	Neither recommend nor discourage	Slightly discourage	Actively discourage
3	9	2	1	0

4.F Response to Faculty Survey or Faculty Assessment of Graduate Program

The survey circulated to faculty had three questions in the section specifically concerning the graduate program. These three questions were near the end of the document. In response to

other questions in the overall evaluation section, a number of comments on the graduate program were made. We summarize these responses first, and then turn to the questions specific to the graduate program.

Question 2, "What are the weaknesses within the department?" elicited six comments pertaining to the graduate program. Four were quite general, stating dissatisfaction with the program or the quality of students. One cited low graduate student stipends combined with high work load for the student TA's and one specifically cited the macroeconomics field. In response to Question 3, asking how additional resources should be allocated, five comments mention the graduate program. Four of these comments suggest allocating new resources to the graduate program, while one comment cautions that unless we change how students are recruited and retained, additional resources would not improve the program. In Question 4, faculty were asked about resource-neutral changes. Six comments were made concerning the graduate program. One suggested that two tracks, teaching and research, be identified and students assigned to teaching and research assistant positions accordingly. Similarly the second suggested more "exchanges" between teaching and research assistants. One suggested that graduate students attitudes about their role in the department and their participation in department life (specifically seminars) needed to be addressed. Other comments suggested "beefing up the terminal Master's program with an additional faculty line" and "using alumni networks to more actively recruit graduate students". The last comment suggested that prelim exams be shifted later in the summer. Finally, in response to question 8, concerning progress since 2004, one faculty commented that we have made progress in bringing our curriculum in line with other graduate programs.

The first question in the survey section on graduate programs asked about the strengths of the graduate program. Twelve comments were made. Five of those comments suggested that our graduate students do well on the job market. Four comments praised the willingness of faculty to interact with students and the quality of those interactions. Three comments indicate that our students are well prepared for dissertation by their coursework. One comment lauds the students for overcoming the heavy workload, and one comment singles out recent DGS's for supervising students and pushing them forward.

The second question asked about weaknesses of the program and elicited 17 comments, many of them quite long. The most common thread was that the quality of our graduate students was poor. A number of faculty tied this to lower stipends. Another common concern was the high workload of graduate teaching assistants. Some faculty suggested that a weakness in our program was too few faculty, while others suggested too few students. Another theme was that students either do not complete enough of the thesis prior to entering the job market or that they fail to make the transition to producing research during their third year.

Overall, there seems to be concern about student stipends, in particular those associated with teaching assistantships. The low assistantship stipends may be related to the size of our program and to the quality of our students. There also seems to be concern over the work load teaching assistants face. In spite of these concerns, the faculty comments suggest that the students are ultimately well prepared, that they are able to obtain good positions, and that we consistently place most or all of our students. Following are the specific comments of the faculty.

4.G. *Faculty Assessment of Graduate Education (Specific Responses)*

On the survey sent to faculty in April, 2011, the following questions about graduate education were asked:

Question 1: In your view, what are the strengths of the graduate program, that is, what do we do well?

Specific, quoted and paraphrased responses include:

We have good faculty. We have a focused program.

Faculty members are very accessible to students, as course instructors, general advisors, and in preparing students for the market. We prepare our students well for the market.

Graduate students get a great deal of individual attention and help at progressing toward completion.

Close relationship between faculty and students.

All three Director of Graduate Studies during the last four years have provided the graduate students with considerable oversight. Given our graduate students' tendency to disappear at times during their second and third years, this is important.

First, we train students well in the coursework. Also, we have developed a program where the graduate students are a good, tightly-knit community who have easy access to faculty. Generally, we move people through the program well and placement is good; comparable to many places that are higher ranked.

Teaching basic theory and applied fields. The students are adequately prepared intellectually to proceed to a dissertation and career.

Our students get jobs. Faculty are active in interacting with grad students

We seem to place our students well.

We are astonishingly effective at placing our grad students into decent teaching jobs.

Though heavy teaching load is terrible, our students have done well to overcome the pressure and become good teachers.

We have substantially improved the quality of the technical training provided during the first year. A major part of this has been the revamping of the microeconomic theory sequence and the adoption of a more rigorous text.

Question 2: In your view, what are the weaknesses of the program, that is, what could we do better?

Specific, quoted and paraphrased responses include:

We need more money for stipends.

The graduate students are overworked and underpaid.

Too much burden on students. Teaching two courses per semester is unimaginable.

We require our students to teach too much (although teaching some is definitely helpful).

The quality of our graduate students is generally poor and this has resulted in a disappointing program altogether. The main problem is that we are not financially competitive with similarly ranked Economics Departments. In addition to poor stipends, our teaching loads (2-2 for third years, the same as for faculty) are excessive. Frankly, it is difficult for me to imagine significant improvement in the graduate program without the Department dramatically improving TA compensation.

We push students to complete dissertations in four years, which typically leaves them in a difficult position as they start jobs. They rarely have 3 essays close to being submitted to journals.

Most of the students go on the market with only one paper. Two completed papers and a good start on the third is more the norm in the profession.

Because of the anachronistic field exam requirement, students do not begin writing papers until their 3rd year at earliest, and possibly their 4th year, with some students apparently beginning to write their job market papers in September or October of their job market year.

Our micro sequence is still in flux, with different people teaching it every year and the content changing from year to year. Since we're known as a micro department, this seems problematic.

Given our size, we struggle to offer six fields. It is difficult to see how that will be sustainable. Allowing half of the current second-year class to take pharmacy classes as a field class isn't helping.

Staffing the courses can be a problem since faculty size is limited. A few more grad students would make a big difference so that all offerings have a good number of students. And we might be able to offer some supplementary courses, e.g., an economic history course. As in most programs, the transitioning of students from coursework to dissertation work is a problem (usually in the third year). We might be able to improve on how we do on this.

The program is a little too small in size. Offering field courses every other year regardless of demand considerations is a little too rigid.

The graduate student mindset needs adjustment to understand importance of professional development activities – conferences – thinks like attending workshops regularly.

The grad program lags far behind what the rest of the department does. It is much weaker than it should be given our department's research output/ranking. Many of the students we are able to attract cannot handle the material of a reasonable first-year sequence, nor the effort and creativity required to write a good dissertation. Perhaps because of this, very little is typically asked of them; my impression from teaching 5 PhD classes and looking at online course evaluations is that the median first-year student works perhaps 4 or 5 hours per course per week outside of class. This is not a path that can result in becoming a competent economist, even for a student of high ability.

We should cut loose students who are not serious about putting in the work to get a Ph.D. in economics. We're not doing the department or the students any favor by keeping these students around for 5~6 years. Directly, it's a drain on resources in that we cannot recruit better students, and indirectly, it sends a signal to new students that the required level of effort to get a Ph.D. at UK is low.

Students are frustrated by a lack of emotional support, useful, calming, positive advice, and encouragement to succeed. Faculty in economics, in too many cases, increase stress rather than managing and using stress to produce good outcomes. There are many competent students who can do good research and presentations and pursue more difficult ideas and methods, but are not encouraged to talk, ask questions, and learn the career—as opposed to the techniques and literature.

The biggest things we can do better: get better students probably at additional cost, work them harder and reallocate their time from grading/teaching to studying, at least in the first year (probably at additional cost).

Question 3: Generally, are you satisfied with the quality of our students? If not, how might the quality of the students be improved?

Specific, quoted and paraphrased responses include:

The quality could be improved with better pay and less work.

Yes – a few more that are better would be nice – but our limited resources significantly constrain our ability to recruit.

Generally, this is good. We perhaps ought to think of ways of get students moving in the 3rd year on dissertation topics - perhaps requiring a third year paper. It's important for us to resist thinking and acting like (and encouraging students to think) we are a 5-year program. We don't have the resources. One of the selling points of our program is that students finish faster than other programs. If students don't get moving on a dissertation in the third year, it's mostly a wasted year.

The quality of student preparation and background skills is generally good, but of course could be improved. There is no magic here. More funding, better success in placement, and selective admissions improve slowly over time.

My sample of graduate students is small but there are some trends. We seem to do best when we admit talented students (e.g. American students without a Masters) whose major deficiency is a lack of math. When we admit less talented students (e.g. those with Masters) with better training, the results have not been as good.

No. We should be more proactive in recruiting students prior to the application stage. One possibility is to look back at where our better students have come from and then contact department chairs and market ourselves.

No. Obviously more money for better stipends and lower teaching obligations would help a lot. Why Ag Econ is able to occasionally get better PhD students than we have?

It is hard to know what to do to improve recruitment. It could be useful to go over our old records from when we admitted current/recent students and see what we could learn. Ag Econ's best students are generally better than our best students, at least in the first year courses. One just transferred to Duke's economics program, which few, if any, of our recent students would be able to do. They are usually recruited to UK by certain faculty with grants. That may not be an option for us, but – especially if we had decent funding that we could guarantee someone for four or five years – we might consider trying to identify and reach out to exceptional students prior to the application process.

No, we have relatively mediocre students, but it's not clear how to pick them better. More importantly, how can we weed out the ones who will not be able to write a quality thesis?

No. In general, there is a problem with studiousness/effort, as well as general quality. A combination of better funding, tracking (into teaching and research), and quickly expelling bad students would help.

No. It is disappointing that we are reluctant to get rid of poor students. This is partly because of the prelim system, where even our worst students perform significantly better than some poor students from other departments, who also take the exam. The Department is uncomfortable with fail rates over 50%, even when over half of the students sitting for the exams are from outside of economics and/or the consensus is that a particular cohort is weak overall. This generally means that all economics students pass the exams even when committee members agree that they should not.

Question 4: Are there changes that could be made in course offerings, fields, or the structure of examinations within the Ph.D. program that would improve it?

Specific, quoted and paraphrased responses include:

Standard and perfectly acceptable, apart from time series.

Our macro core needs to be more focused on empirical topics and links from theory to empirical topics. Our econometrics should be ramped up some, but it is difficult since many students come unprepared (which is generally true for all core topics).

Allowing the prelim committees to consider the class performance of students whose exams are marginal after initial blind grading into fail/marginal/pass categories.

We may consider offering some fields every year as long as there is sufficient demand.

We might want to cut back our fields and focus a little more. Topics courses could still be offered.

Generally am satisfied. A third year paper might be a good requirement.

The purpose the field exam is unclear. Few students fail and the exams only serve to delay students beginning their research. At the very least, the faculty in a field should have the discretion to replace the exam with a field paper.

Would like to see a movement away from field exams to field papers.

Easiest change is to eliminate the field exams and require a field paper.

We should eliminate the field exam requirement replacing it with a field paper/3rd-year paper. Apparently this is the norm at decent grad programs. We might additionally look into requiring a 2nd-year paper, the way some programs such as Wisconsin do.

Allowing fields to decide whether to require a field paper in addition to the field exam.

Students treat the prelim as anything more than a minor hurdle to be crossed. Many balk at the idea of having to think independently and complain if concepts are not spoon-fed to them.

We should go back to the old system in which students must pass two fields to qualify as PhD candidates.

The College should use the first-year PhD courses in economics for all PhD students. For example, nearly all PhD students could take the first-year micro sequence. This would free up resources in other college departments/schools. Perhaps the department could be reimbursed or rewarded somehow for teaching these additional students.

Those who are clearly unfit for the graduate program should be firmly cut loose at the end of year 1.

Question 5: Based on your experiences, are you satisfied with the quality of our students' dissertations? How might the results be improved?

Specific, quoted and paraphrased responses include:

Yes

Yes, satisfied working with our students as they are, on average, hardworking and motivated.

They are ok but not great. Again, if the students did not have such high teaching demands, they could produce better dissertations (in theory).

Generally am satisfied. We might consider a third year paper.

Somewhat satisfied given the constraints we face. The major constraints are limited financial support and heavy teaching loads for TA's. The paucity of fellowships that are competitive with competing universities and the small TA budget that presents a severe tradeoff between number of supported students and number of years of support make it extremely difficult to produce dissertations comparable in quality to Top 20 public department.

Most of the dissertations in my sample are from students who are clearly aiming for a teaching-track position, so conditioning on that fact, they are acceptable.

Committee members should be involved beyond just appearing at the proposal and defense.

No, not satisfied with thesis quality. While some are quite good, many are "turn the crank" run a few regressions with little or no serious contribution. Additional time might help in some cases, but generally it doesn't. We need to get them writing earlier and using data earlier.

Get students conducting research earlier and provide funding for 5th year.

Dissertation advisors have just too little time with their students. Most students spend less than 12 months on their dissertations before going out to the job market. This is simply too short.

No. Students need to begin doing real research earlier. The single easiest way to improve dissertations is to eliminate the field exams and require a field paper. Most students would pass the field paper, with guidance from their advisor, but students who prove to truly lack the motivation/creativity to get through a decent paper could be booted at this earlier stage, rather than having them languish for years. In my brief experience with field exams, they are useless, not taken seriously by students knowing that it was suboptimal for us to fail them, and we passed exams that did little to indicate the students were on their way to becoming competent economists.

Question 6: Generally, are you satisfied with the success of our students on the job market? How might the results be improved?

Specific, quoted and paraphrased responses include:

Yes

Very satisfied.

Yes, our students do quite well on the market.

We seem to place very well, all things considered.

That our students do as well as they do is surprising and pleasing.

Success is good. It would be difficult to improve on what we do.

Our students often do quite well, in no small part due to the efforts of Gail and to some degree Bob. We might improve it by having two tracks: research and teaching. In some ways we already do, but we don't work it enough. This, however, would be antithetical to the "research degree" that is supposed to be a PhD.

Our students seem to be quite successful. They will probably do better with earlier start. We can encourage students to seek active interaction sometime in the second semester of their second year. Another, probably better but more costly solution would be allowing them to stay for the fifth year with financial support. Support should be on a competitive basis to avoid moral hazard.

Students need to start writing their dissertations much sooner. We should avoid cases where students do not begin writing their job market paper until a few months before packets are to be sent out.

That could be better, and the ways to improve this are more papers written, submitted, and published, and more practice and calming advice in the job market.

Question 7: Do you have any concerns about or suggestions on how to improve the funding of graduate students?

Specific, quoted and paraphrased responses include:

Lack of funding is certainly a concern. It hurts our competitiveness significantly in the recruitment process.

Although we do have some supplementary funding, the stipend amount is way too low. A few more TA lines would go a long way.

The graduate school should provide more money for graduate student salaries.

We as faculty MUST write and get more grants with graduate student support.

The funding is standard, but exchanges of TA for RA would continue to be valuable.

Assuming that new resources are directed to the graduate program, they should be used to attract better first year students, not to provide additional funding for advanced graduate students. Our program is solid, the inputs are the problem. We should have one or two fellowships that allow us to attract some students of a quality that we could not usually attain. A few stronger students would provide a positive externality to the rest of the class – peer effects.

This isn't a problem with our current students. Given tight resources overall, we should be reluctant to allocate resources to our students without significant improvement in quality (motivation, background in economics, and to a lesser extent technical skills). The only exceptions would be to reduce their teaching requirements and to provide funding for a fifth year.

Yes, graduate funding is a major deficiency of the department, and leads to us admitting/keeping many grad students who really can't handle the first-year courses or the discipline required to write a decent thesis. My preference would be to divert resources from elsewhere to increase stipends, reduce teaching loads, particularly for first-year grad students, and to see if we can stretch to recruit better students than we otherwise could with above-normal fellowship offers. This is easier said than done, but there does not appear to be concern about the low quality of our grad students. We should use a nontrivial share of the endowed chair money on improving the grad program rather than spending most of it hiring new faculty.

Can we promote terminal-master degree programs for students who have jobs already?

Would local colleges such as Transylvania and Berea be interested in our fifth-year students in some type of visiting-lecturer capacity? Could we set-up program with them. It might provide both a source of funding and experience that could be helpful in job market.

5. *Undergraduate Education*

The undergraduate programs in Economics are designed to develop an understanding of the power of economic analysis for analyzing the growth and distribution of scarce resources for individuals, governments, and businesses. The Department seeks to develop, in all economics students, an understanding of a common theoretical core in both microeconomics and macroeconomics. This core includes a working knowledge of resource allocation within the context of markets, how individuals and firms make decisions, and measures of the overall economy. Students should develop an ability to think critically and analytically about economic issues and learn to evaluate alternative economic policies. Our majors should ultimately enter the workforce or proceed to a related graduate program.

5.A *Outline of Degree Programs and Requirements*

The Department of Economics, housed in the Gatton College of Business and Economics, administers economics majors across both the Gatton College and the College of Arts and Sciences. In the Gatton College the Department offers a Bachelor of Science major and a minor in Economics. In the College of Arts and Sciences, the Department administers both a Bachelor of Arts in Economics and a Bachelor of Sciences in Economics degree. In conjunction with the Department of Mathematics the Department administers a Bachelor of Arts and a Bachelor of Sciences in Mathematical Economics. In conjunction with the Department of Modern and Classical Languages and the Department of Hispanic studies the Department administered a Bachelor of Arts in Foreign Language and International Economics (FLIE) from 1993 to 2008. Beginning in 2008 the FLIE program was absorbed as an option in the new International Studies Program and is now administered by that program in the College of Arts and Sciences rather than jointly by the Department of Economics and the language departments.

5.A.1 *Economics Degree in the Gatton College of Business and Economics*

The Bachelor of Science in Economics in the Gatton College of Business and Economics had 157 majors as of the Fall 2010 semester. As with all B&E majors, Economics majors must complete the college pre-major requirements (ACC 201, ACC 202, ECO 201, ECO 202, STA 291, MA 123 and MA 162 or MA 113). For students entering in the fall of 2011 the university mandates the new revised general education requirements (UK core) that replace the old “University Studies Program” requirements. This transition will not alter overall hours a student must complete, but it will change the selection of courses in special areas. In order to be admitted to upper division status, students must complete 60 semester hours with a minimum cumulative GPA of 2.8 and complete the pre-major and English requirements with a minimum GPA of 2.8.

Students who have been admitted to upper division status and declare Economics as a major must complete the college core courses (MKT 300, FIN 300, MGT 301, MGT 340, DIS 300, and ECO 391). Economics majors must also complete the intermediate economics theory core (ECO 401 and ECO 402) and a capstone course (ECO 499). In addition, economics majors must complete 12 credit hours (4 courses) of economics courses and three credit hours (one course) of upper level electives in the Gatton College.

While students from any unit on campus may pursue a minor in economics, the program is offered through the Gatton College of Business and Economics and has enjoyed healthy enrollment and growth over the past few years. Currently, students earning a minor in economics must take ECO 201, ECO 202, ECO 401 or ECO 402, and three more economics electives at the 300 level or higher. In March 2011 the department voted to change the requirements for the minor to ECO 201, ECO 202, ECO 401 and three more economics electives at the 300 level or higher. This change brings internal consistency to the program as some students felt they should be able to take ECO 402 without having had ECO 401, but the department voted that ECO 401 should be a prerequisite for ECO 402.

The New Major in International Business and Economics Major (IBE): The Undergraduate Studies Committee in Economics recently proposed a new economics major in the Gatton College of Business and Economics that will have an international emphasis. The College's Undergraduate Studies Committee approved the concept and so the department is now developing the full proposal for the program to present to the University. This would be a major within the college with the same upper division admission requirements that apply to all business majors. In addition to taking the college core, the program requires upper level economics and business courses with international emphasis. With open electives students would be encouraged to take additional language and cross cultural courses and a study abroad experience would be highly recommended or perhaps even required. This program would require the creation of only one new course in accounting and could be initiated with a minimum of new resources. Course requirements would be as follows:

Tier I: Standard General Education Courses

Tier II: B&E College Core (This includes ECO 391)

Tier III: Upper Level Courses

ECO 401 Intermediate Microeconomic Theory

ECO 402 Intermediate Macroeconomic Theory

Two of the following three courses:

ECO 471 International Trade

ECO 472 International Monetary Economics

ECO 473 Economic Development

MKT 435 International Marketing

MGT 309 Introduction to International Business

FIN 423 International Finance

ACC ___(International Accounting Course to be created)

The full proposal is expected to pass from the department to the college in the fall of 2011 and then will be presented to the University's Undergraduate Council.

5.A.2 Economics Degree in the College of Arts and Sciences

As with all majors in Arts and Sciences, Economics majors satisfy the college requirements. For a Bachelor of Arts Degree, this includes the foreign language requirement and six credit hours each in the natural sciences, social sciences, and humanities. The Bachelor of Science degree includes the foreign language requirement and three credit hours each in natural sciences, social sciences, and humanities. The Bachelor of Science degree also requires 60 credit hours in the biological, physical, or mathematical sciences. For students entering in the fall of 2011 the university will require the new revised general education requirements which will not alter overall hours, but will change the selection of courses in special areas.

As of the Fall 2010 semester there were 230 students majoring in economics in Arts and Sciences. Nearly all of these students choose to pursue a Bachelor of Arts. The pre-major requirements for these degrees include mathematics (MA 113 or MA 123 and MA 162), principles of economics (ECO 201 and ECO 202), and statistics (STA 291). The major core requirements include intermediate theory (ECO 401 and ECO 402), statistics (ECO 391), and a capstone course (ECO 499). In addition, majors must complete 9-15 credit hours of 300 level (or above) economics courses and 15-21 credit hours outside of economics at the 300 level in at least two disciplines.

5.A.3 Economics Majors Jointly Administrated between B&E and A&S

Recognizing an important need for programs designed to prepare students for the cross disciplinary labor market, the Department of Economics has sought to exploit important synergies with other units on campus. During the review period there have been two jointly-administered programs. Both programs have been jointly administered between the Gatton College and the College of Arts and Sciences. Majors in these programs are technically in both colleges.

- *Mathematical Economics*

This program was designed to meet the needs of economics majors who desire a rigorous mathematical background in preparation for graduate school (in economics or finance) or actuarial science. The program was started in 2002 and by Fall 2010 had 44 majors. Because of the higher mathematics requirements, most students choose to pursue the Bachelor of Science degree. The pre-major requirements are calculus I and II (MA 113 and MA 114). Students then must complete two additional courses in calculus (MA 213 and MA 214), a course in probability (MA 320), and a course in matrix algebra (MA 322). The economics portion of the core material includes principles (ECO 201, ECO 202, and STA 291) and intermediate theory (ECO401, ECO 402 and ECO 391). Additionally, students must complete a six credit hour mathematics sequence (Operations Research, Advanced Calculus or Statistics). Students must also complete at least nine credit hours of additional economics courses at the 300 level or above. Mathematical Economics majors are encouraged to take ECO 491 as one of their economics electives as this course presents more sophisticated econometric techniques and typically includes a research project.

After the first five years of offering this new major, the program underwent a self-study process and was reviewed by external evaluators. The external evaluators recommended the following in their 2008 report regarding the program in Mathematical Economics.⁹

1. The committee recommends creation of a 300-level introductory course in mathematical economics.
2. The committee recommends that the program be made more visible on campus.
3. The committee recommends that the program work to develop a sense of community among its majors.
4. The committee recommends the creation of an internship program.
5. The committee recommends the establishment of an advisory board from the business community.
6. The committee recommends against special sections of ECO 401/402 and MA 320 specifically designed for the Mathematical Economics majors.
7. The committee recommends that the University consider trying to coordinate the reviews of the Departments of Mathematics and Economics and the program in Mathematical Economics.
8. The committee recommends giving the Director a course release.
9. The committee recommends that the program remain a program between the College of Arts and Sciences and the College of Business and Economics.

The first recommendation was the first to come to fruition. A new course, cross-listed as MA327/ECO327, *Strategic Decision Making: An Introduction to Game Theory*, will serve as an important entry level course to the mathematical economics program. Final approval for the course has been obtained in Spring 2011 and the course will appear on the schedule for the first time in the spring of 2012. The course was designed and will be taught by Adib Bagh who has been hired into a special position for the Mathematical Economics program.¹⁰ The course overview from the proposed syllabus describes the course as follows: “Strategic decision making is an essential feature of human interaction. It plays a major role in economic and social systems. Perhaps more surprisingly, strategic decision making also plays a role in biological systems, complex computer network systems, and other evolutionary systems such as human language. At a basic level, strategic decisions are those made by distinct organisms with the goal of optimizing individual gain in a competitive setting. Game theory is the mathematical tool used to model and solve strategic decision problems.”

The realization of recommendations 2 through 5 ultimately hinges on recommendation 8 – offering a course release to the program director, but more importantly, acknowledging the

⁹ The full 2008 MAEC Self Study Report and External Review Report are included in *Appendix A.5*.

¹⁰ Adib Bagh replaces the first faculty member to hold this position, Daniela Puzzello, who left for the University of Illinois in 2007. Adib is in his third year and in this position holds a primary appointment in the Department of Economics with a joint appointment in the Department of Mathematics.

position of program director more formally, compensating the director appropriately and providing the program with some budget. During the 2010 -2011 academic year the Dean of Arts and Sciences has made strides in supporting the position of director of the Mathematical Economics program which will put the director in a better position to achieve the recommendations of program: visibility, sense of community, internship development and the creation of a board. More needs to be done to elevate the status of the program to make it commensurate with other programs of comparable size, but current steps are in the right direction.

- *Foreign Language and International Economics (BA and BS degree, being phased out)* Students with international interests have been drawn to the multidisciplinary nature of the Foreign Language and International Economics degree. Nearly all of the students pursuing this degree have chosen the Bachelor of Arts. There is no specific pre-major requirement for the FLIE program, allowing students to enter the program either from economics or from language interests. The core requirements of the program include 9-12 credit hours of specific language and culture classes. Students are required to complete 24 credit hours of specific economics classes. These economics classes can be broken into three groups. The first group can be deemed the pre-major requirements (ECO 201, ECO 202 and STA 291). The second group is the core theory requirements (ECO 401, ECO 402 and ECO 391). The third group is a set of economics courses with a focus on international topics and includes International Economics (ECO 471), International Monetary (ECO 472), and Economic Development (ECO 473). In addition to these specific course requirements, FLIE majors complete 12-14 credit hours in language and culture classes and an additional three credit hours in economics.

The FLIE major was first offered in the fall of 1993 with 3 majors and quickly grew to 91 majors by Fall 1997.¹¹ During the current review period, 2004-2010, the number of FLIE majors increased from 153 in spring 2004 to a maximum of 194 in Fall 2007. Since the FLIE was eliminated in 2008 and only students who were in the program before it was abolished are still majors, the number has fallen to 12 in fall 2010. In fall 2010 only 24 students in the new International Studies Program (ISP) have selected the FLIE option within that program.

5.B Trends and Comparisons for Undergraduate Programs

Across all four degree programs there are 421 economics majors¹² as of Fall 2010. As noted above, 157 (35%) are completely in the Gatton College of Business and Economics, 230 (52%) are in Arts and Sciences, 44 (10%) are in the Mathematical Economics program, and 12 (3%) are left in the Foreign Language and Economics program. The percent of economics majors who are female is around 28 percent, close to the national average of approximately 30 percent.

¹¹ The 2003 Self Study for the FLIE and the External Review Report are shown in *Appendix A.5*.

¹² The data on economics majors and other majors in B&E were constructed by members of the economics faculty based on data from the office of the Dean of Students in B&E. These data include double majors. The data for A&S economics majors derive from data provided by the office of the Dean of Students in Arts and Sciences. Data for A&S and for the university as a whole were taken from the U.K. Institutional Research web page.

5.B.1 Trends in Enrollment in Majors

Table 5.1 shows the enrollment across the different types of Economics majors, giving an indication of where changes have occurred. The current total of 157 B&E majors represents a 32% increase in Economics majors within the Gatton College of Business and Economics from 119 at the beginning of the review period.

The number of Arts and Sciences economics major has increased 3 percent from 223 at the beginning of the review period in Fall 2004 to 230 in Fall 2010.

The jointly administered Mathematical Economics major which began in 2002 had 38 majors in 2004 at the beginning of the review period and increased by 16 percent to 44 majors in Fall 2010.

In Fall 2004 there were 163 majors in the jointly administered FLIE program. The FLIE major was eliminated and absorbed as an option in the new International Studies Program in 2008. As a consequence the number of majors has decreased as the students with the major graduated. By Fall 2010 there were 12 FLIE majors. The precipitous drop from 194 FLIE majors in 2007 to 24 ISP majors with the FLIE option is noteworthy.

During the 2004-2010 review period, the number non-FLIE Economics majors increased 13 percent from 380 to 431. However, due to the elimination of the FLIE, the seven-year period since the last departmental self-study has seen an 18 percent decrease in the total number of economics majors. In Fall 2004, there were 543 Economics majors across four programs. The Fall 2010 total was 443 total majors.

Figure 5.1.A shows trends in enrollments in the various economic majors from 1991 through 2010 and *Figure 5.1.B* shows enrollment in economic majors just over the period of the self study. It is evident that the decline in total majors is primarily attributable to the elimination of the FLIE major as the B&E major and the regular A&S Economics majors have seen growth in enrollment.

Table 5.1: Number of Economics Majors in Gatton Business & Economics and in Arts and Sciences, and Minors in Economics, 1991-2010

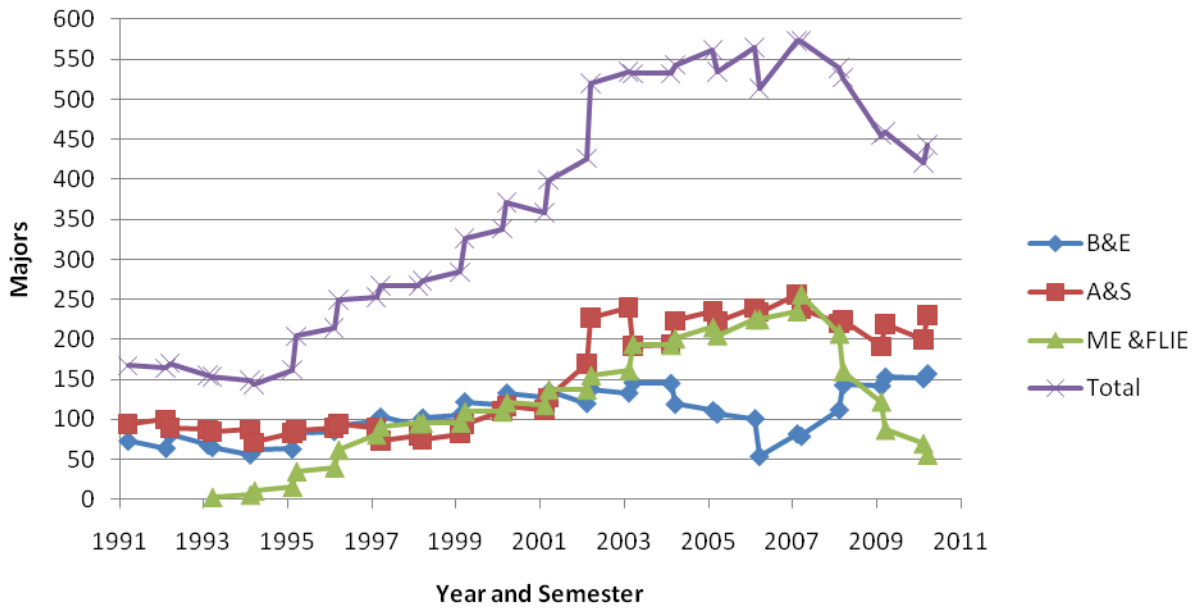
Semester	Gatton B&E Economics	A&S Economics	Mathematical Economics	Foreign Language International Economics	Total Number of Econ Majors	Economics Minors		A&S International Studies (Economics Option)
Fall 1991	73	94	---	---	167			---
Spring 1992	64	100	---	---	164			---
Fall 1992	81	89	---	---	170			---
Spring 1993	68	87	---	---	155			---
Fall 1993	65	85	---	3	153			---
Spring 1994	56	87	---	6	149			---
Fall 1994	62	71	---	11	144			---
Spring 1995	63	83	---	16	162			---
Fall 1995	83	86	---	35	204			---
Spring 1996	85	89	---	40	214			---
Fall 1996	93	94	---	62	249			---
Spring 1997	98	90	---	81	253			---
Fall 1997	103	73	---	91	267			---
Spring 1998	92	80	---	95	267			---
Fall 1998	102	75	---	96	273			---
Spring 1999	106	82	---	96	284			---
Fall 1999	122	94	---	110	326	23		---
Spring 2000	118	110	---	110	338	29		---
Fall 2000	133	117	---	121	371	16		---
Spring 2001	128	112	---	118	358	22		---
Fall 2001	135	127	---	137	399	17		---
Spring 2002	120	169	---	137	426	26		---
Fall 2002	138	227	17	138	520	22		---
Spring 2003	133	240	23	138	534	26		---
Fall 2003	146	192	41	153	532	31		---
Spring 2004	145	194	40	153	532	37		---
Begin Review Period								
Fall 2004	119	223	38	163	543	48		---
Spring 2005	111	235	45	170	561	60		---
Fall 2005	107	222	37	168	534	44		---
Spring 2006	101	239	53	172	565	50		---
Fall 2006	54	234	50	175	513	50		---
Spring 2007	82	256	55	180	573	46		---
Fall 2007	79	238	62	194	573	46		---
FLIE Terminated								
Spring 2008	112	220	58	149	539	Unavail.		---
Fall 2008	143	224	54	106	527	34		11
Spring 2009	142	191	47	75	455	66		16
Fall 2009	153	219	50	37	459	61		22
Spring 2010	151	200	38	32	421	65		22
Fall 2010	157	230	44	12	443	74		24
Summary								
Fall 2004- Fall 2010	+32%	+3%	+16%	7% of 2004	-18% all majors (+13% nonFLIE)	+54%		

1 Note that the number of majors includes students who listed economics as their primary major and students who listed economics as their secondary major.

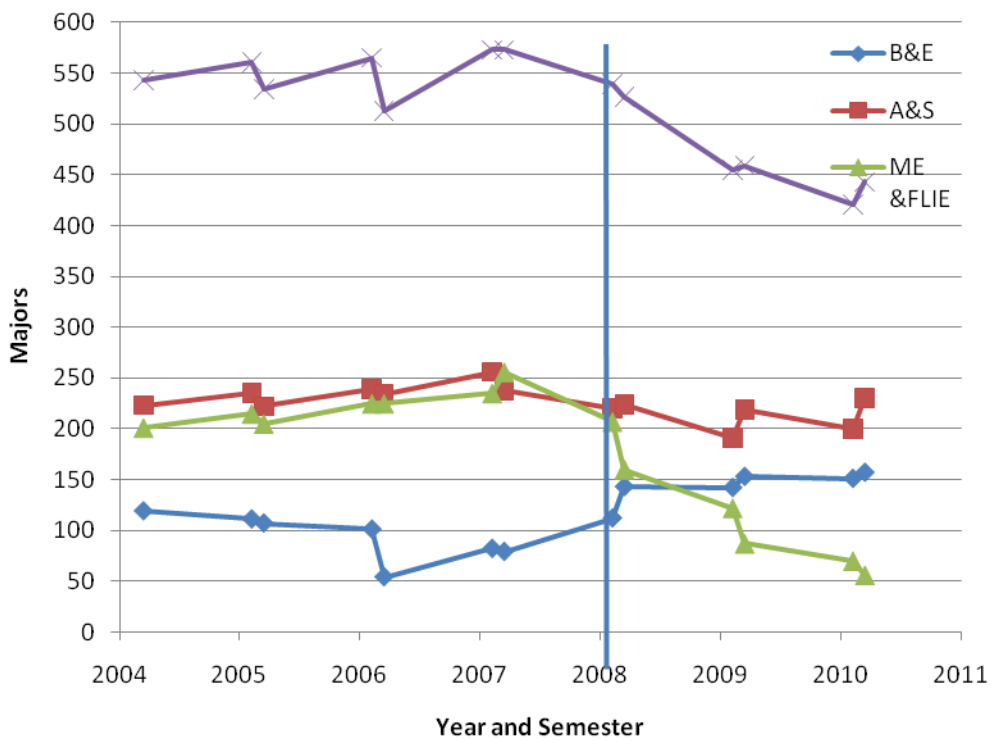
2 Note that data on majors came from A&S Enrollment Management & Assessment, Source: FOCUSIS extract/SIS. These values do NOT represent the University's Official enrollment (CPE: Statistical File) but those who were active in SIS (Student Information System) at the end of each term.

3 Fall 2008 – Spring 2011 numbers are from Jason Pieratt in Undergraduate Affairs, College of Arts & Sciences, March 22, 2011. In 2008 A&S abolished FLIE as an economics major.

**Figure 5.1.A: Total Majors and Majors by College & Specialization
Fall 1991 - Fall 2010**



**Figure 5.1.B: Total Majors and Majors by College & Specialization
Fall 2004 - Fall 2010**



5.B.2 Trends and Comparisons in Course Enrollments¹³

Enrollment in economics courses can be grouped into two major categories: service courses and major courses. ECO 201 Principles of Economics I, ECO 202 Principles of Economics II and ECO 391 Business and Economics Statistics primarily serve as service courses, deriving a large portion of their enrollment from requirements of the College of Arts and Sciences, Gatton College of Business and Economics, other majors, or the university studies program. Enrollment in the three main service courses has seen mild increasing trends. During the previous review period enrollment in ECO201 and ECO202 increased from 3,209 in the 1997-1998 academic year to 3,343 students in the 2002-2003 academic year, a 4% increase. By academic year 2007-2008 enrollment was 3,422 and by academic year 2009-2010 enrollment increased to 3,544 students. The increase from 2002-2003 at the end of the previous review period to 2009-2010 was 6%. The increase is more than 10% since 1997-1998 at the beginning of the previous review period. However, it should be noted that sections of these courses typically fill to capacity, so growth is limited not by low demand but rather insufficient resources to provide additional sections.

ECO 391 Business and Economics Statistics plays a service roll for the Gatton College of Business and Economics, and also serves as an important part of the economics major core. During the previous review period enrollment grew from 793 students in 1997-1998 to 920 students in 2002-2003, an increase of 16%. This growth represented a mixture of growth within the Gatton College and in economics majors outside the Gatton College. By academic year 2007-2008 enrollment in ECO 391 had decreased to 747 but by 2009-2010 enrollment had increased to 764 students. The decrease from the end of the previous review period to 2009-2010 was 17%. The decrease is 4% since 1997-1998 at the beginning of the previous review period. Again, this might reflect a decline in demand, but more likely it reflects an inability to offer as many sections of the course.

ECO 201, ECO 202, ECO 391 serve a number of programs as well as majors in economics. ECO 101 Contemporary Economic Issues also serves several programs and enrolled an average of 143 students per year during the period 2007-2010. During the period 2007-2010 a total of 18,434 students enrolled in these four courses. Almost half of the enrollment was in ECO 201, the principles of microeconomics course. The distribution across the courses was ECO 201 49.3%, ECO 202 29.8%, ECO 391 17.8% and ECO 101 3.1%. The distribution across colleges was Gatton College of Business and Economics 38.5%, College of Arts and Sciences 16.7%, College of Agriculture 16.3%, and the remainder in other colleges. *Table 5.2* shows the distribution across colleges.

¹³ Data discussed on this page and the following page and presented in *Tables 5.2 and 5.3* were drawn from the APEX system and span each term (fall, spring, summer I, and summer II) from Fall 2006 to Summer II 2010 and are calculated after the drop date so they reflect final course enrollment. Data in *table 5.4* do not include summer courses, but provide a more detailed breakdown by section of course. Numbers are not identical to those used to construct *Tables 5.2 and 5.3* as they are initial enrollments and not determined after the drop date in addition to omitting summer courses.

Table 5.2 Share of Enrollment in ECO101, ECO201, ECO202, ECO 391, by College, 2007-2010

College	Enrollment Share
Gatton College of Business and Economics	38.5%
College of Arts and Sciences	16.7%
College of Agriculture	16.3%
College of Undergraduate Studies	13.2%
College of Engineering	4.5%
College of Communications and Information Studies	3.2%
College of Education	3.0%
Other colleges	4.6%

Although the largest share of students enrolled in the four lower-level undergraduate courses (38.5%) are in the Gatton College of Business and Economics, most enrollment in these four courses serves students outside the Gatton College of Business and Economics (61.5%). The important service role these courses play is indicated further by the fact that only 849 of the 18,434 students enrolled in the courses during the period 2007-2010 were identified as economics majors. Students identified as economics majors account for only 4.6% of the enrollment in these lower-level courses.

Enrollment in courses numbered above ECO391 would include mostly 400-level courses and a few ECO 395 Independent Study students. During the period 2007-2010, 5,086 students enrolled in these upper-level courses, an annual average of 1,272. As with the lower-level courses, most enrollment comes from the Gatton College of Business and Economics (39.1%) and the College of Arts and Sciences (57.5%). For upper-level courses these two colleges account for almost all the enrollment (96.6%). The College of Arts and Sciences enrolls almost half again as many (46.9%) more students than the Gatton College of Business and Economics in upper-level courses. Economics majors in both colleges make up 33.8% of students enrolled in the upper-level courses.

Table 5.3 Share of Enrollment in ECO400-level Courses, by College, 2007-2010

College	Enrollment Share
Gatton College of Business and Economics	39.1%
College of Arts and Sciences	57.5%
Other colleges	3.4%

The different majors from the Gatton College of Business and Economics and the College of Arts and Sciences perform differently as measured by grade point average. On average, GPAs of Arts and Science majors (2.46) are far below the grades of B&E economics majors (3.31) and Mathematical Economics majors (3.11). The GPA distributions by major are shown in *Figures 5.2 – 5.4*. As a result of this performance differential and concern for students selecting economics as a major because it is an appropriate fit, the department has now established a prerequisite grade of C or higher in ECO201 and ECO202 for ECO401 to help ensure that students who pursue the major are more likely to be qualified and able to successfully complete the major and have a positive learning experience in the process.

Figure 5.2: Grade Point Average Distribution for Arts and Sciences Economics Majors Fall 2010

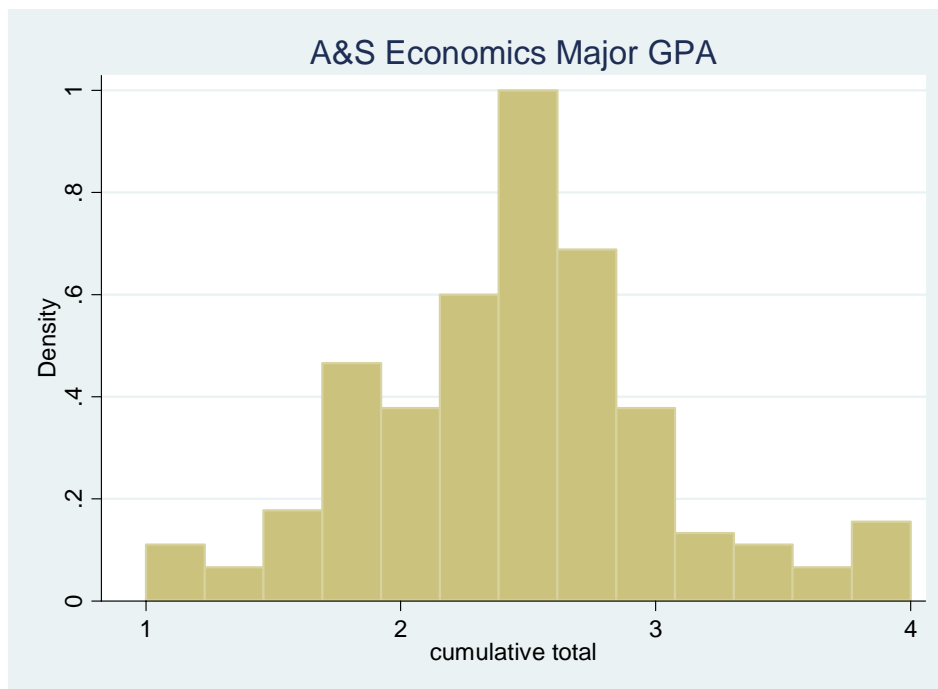


Figure 5.3: Grade Point Average Distribution for Mathematical Economics Majors Fall 2010

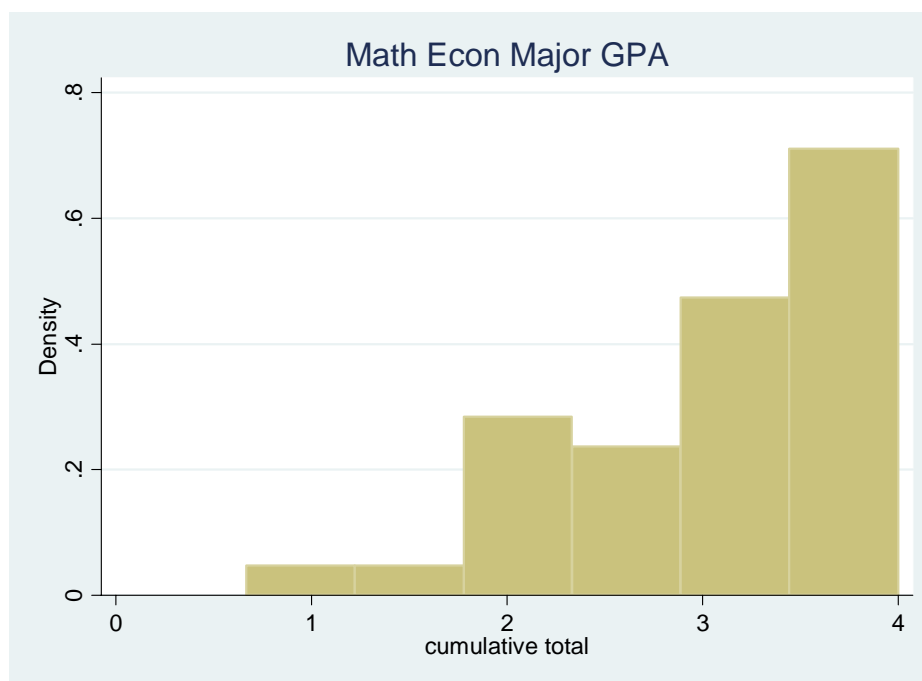


Figure 5.4: Grade Point Average Distribution for Gatton College Economics Majors Fall 2010

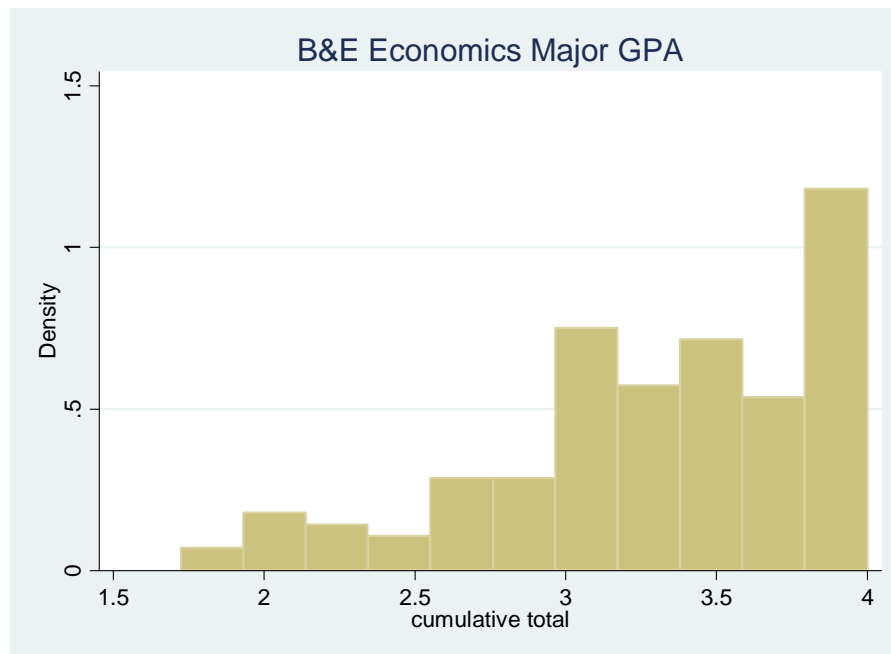


Table 5.4 shows enrollment in all economics courses over the period of the review. Note that this table does not include enrollment in summer classes. It only shows enrollment by course during regular fall and spring semesters. One observation worth noting is that ECO 465G has not been offered since 2006 as many institutions no longer teach comparative economic systems. After five years of not being offered, the course is automatically removed from the university bulletin. However, also note the ECO 467, American Economic History, had not been offered since the early 2000s, but has been offered continuously since Spring 2010 as one of our faculty members has an interest in teaching it. Enrollment in this course remains robust. It is also worth noting the ECO 410, Current Issues in Economics, once only offered sporadically, has been offered regularly since Spring of 2009. Recent courses taught under this special topics heading have involved the economics of food, economic development in Africa, health economics, and environmental economics among others. These special topics courses are very popular with our students and faculty members enjoy teaching in specialized areas to undergraduates.

Beginning in the fall of 2011, ECO 101 will qualify as one of the new general education social science courses. This is likely to increase enrollment. ECO 201, which under the old structure counted as an undergraduate studies program social science requirement will not fall under the new general education requirements and enrollments are likely to drop. The department is in the process of revising the course and submitting the paper work necessary to convert to course to meet the new general education requirements. The course may be offered in this form by fall 2012.

Table 5.4 Enrollment by Level of Course, years, Fall 2004-Spring 2011

	2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		Total
	Fall	Spr	Fall	Spr	Fall	Spr	Fall	Spr	Fall	Spr	Fall	Spr	Fall	Spr	
ECO 101	113	108	113	120	83	113	66	57	67	62	77	96	59	107	1241
ECO 201	1131	1080	1208	1137	1178	988	1216	1149	1136	1131	1165	1102	1106	1089	15816
ECO 202	567	709	666	752	621	769	616	713	681	693	676	673	645	679	9460
ECO 391	379	365	393	375	421	379	401	355	362	387	407	362	369	408	5363
ECO 395	1	5	1	4	1	5	1	1	1	3	2	2	1	.	28
ECO 401	91	98	105	126	112	114	112	100	85	104	97	107	103	134	1488
ECO 402	97	90	94	84	93	93	98	94	95	90	97	85	97	82	1289
ECO 410	.	43	34	.	60	44	.	.	.	41	26	44	73	55	420
ECO 411	.	.	48	.	.	.	.	.	.	45	.	.	.	25	118
ECO 412	148	127	119	128	158	148	150	129	135	134	121	128	126	117	1868
ECO450G	.	.	26	.	19	.	22	.	.	.	12	.	.	30	109
ECO 461	61	.	.	.	20	.	31	.	43	19	.	17	9	.	200
ECO 465G	.	43	43	.	29	.	.	.	.	.	.	.	.	.	115
ECO 467	.	.	.	.	.	.	.	.	.	.	.	39	33	28	100
ECO 471	88	87	97	66	82	46	36	64	47	46	46	43	41	51	840
ECO 472	.	.	.	.	.	.	41	47	37	22	38	14	38	13	250
ECO 473G	20	.	.	48	.	59	.	56	23	48	.	27	18	.	299
ECO 477	.	.	40	41	11	28	42	37	34	31	34	20	.	.	318
ECO 479	50	51	29	46	23	26	39	42	35	35	27	19	16	12	450
ECO 491G	.	.	.	32	.	16	.	8	.	24	.	20	.	14	114
ECO499	52	70	40	54	38	53	55	47	37	59	38	67	44	58	712
Total	2798	2876	3056	3013	2949	2881	2926	2899	2818	2974	2863	2865	2778	2902	40598

5.C Peripheral Support of Undergraduates

In addition to the specific degree programs and courses that the department offers, support and opportunities are also provided to undergraduates through other means as well. In unison, these additional efforts help to enhance the overall educational experience of economics majors.

5.C.1 Advising

Advising takes place prior to course registration each semester, but it also occurs at other times throughout the regular semesters as well as during the summer. Whereas “advising holds” were once “lifted” by a faculty member advisor, now for all types of economics majors, advising holds are lifted in their respective college by professional advisors. This transition occurred gradually over the last decade and has been an enormous improvement to the overall advising process. With over five hundred economics majors, faculty advisors were overwhelmed with advisees. Often the advisees only wanted their hold lifted or had questions about freshmen level or general education requirements. Now that holds are lifted elsewhere, when students come for advising it is voluntary and they come with questions regarding specific economics courses, details of the various types of economics majors, careers in economics, and attending graduate school in economics. To assist in the advising process prior to registration, the department has begun to co-sponsor meetings with the Economics Society where all faculty teaching upper level economics electives come and each take five minutes describing the course they will be offering. This preview has been very popular with our majors and we plan to continue doing this each semester.

5.C.2 Independent Study and Experiential Education

Economics majors often seek opportunities to learn beyond that typical classroom setting and to learn economics at a more rigorous level. Students wishing to get firsthand experience in a work environment (private, non-profit, and government) can enroll in EXP396 for experiential education. These courses are coordinated in the career center and the students work is overseen by an onsite employer and a faculty sponsor in the department. The specific academic requirements are determined by the faculty sponsor and work tasks are determined by the onsite sponsor/employer. Often these experiential learning opportunities turn into full time jobs after graduation or they enable students to make connections to other employment.

Students wishing to have a more rigorous academic experience through research can enroll in ECO395 – Independent Work in Economics. With the oversight of a faculty sponsor, students engage in a semester-long research project. This type of experience is especially useful for students planning to attend graduate school in economics. Often, students who participate in ECO395 go on to publish their work in student journals and present their work at conferences and on campus. Whenever possible, the department tries to hire majors with an inclination toward research to work in the Center for Business and Economics Research and in the Poverty Center. Synergies certainly exist between having such centers associated with our department and the opportunities we can offer our undergraduates.

5.C.3 *The Lab for Economic and Accounting Proficiency (LEAP)*

In the fall of 1996 the department and the college first offered the Lab for Economic and Accounting Proficiency, LEAP. This lab provides free tutoring to students taking ECO201 and ECO202 as well as ACC201 and ACC202. The lab is staffed by paid tutors who are majoring in economics and accounting, and with a large pool to draw from, exceptional students with outstanding academic credentials are selected. The lab has successfully functioned for fourteen years. One faculty member from the Accounting Department and one from the Economics Department oversee the lab with the assistance of a student coordinator who works with scheduling and day to day operations. In student evaluations of quality, tutors have performed well consistently and use levels remain high and steady. At the end of each academic year, an annual report is prepared to summarize the year's activity. Sample reports are included in appendices. Beginning in the fall of 2011, the lab will also provide online tutoring as students have indicated they are interested in and would utilize this additional form of assistance.

5.D *Undergraduate Student Outcome Evaluations*

Measuring student outcomes is difficult. In this self-study we have chosen to employ two methods of evaluation. The first are the teaching evaluations administered each semester in classes. It is well understood that these evaluations are imperfect measures of faculty performance in the classroom. However, their widespread use allows for comparisons. Further, they are one of the few measures currently available. The second instrument used to elicit information specifically about our majors came in the form of an alumni survey designed to ask specific questions about department undergraduate programs. A copy of the survey instrument can be found in *Appendix A.5*. In this section we also describe newly designed and implemented learning assessment measures and we show some preliminary results.

5.D.1 *Teaching Evaluations*

Although teaching evaluations are not perfect measures of either teaching ability or the value of the course, they are the only measure currently available. Summary statistics at the class, department, and college level are available through the Office of Institutional Research and Assessment. While the evaluation form requests information on a great many topics, we have chosen to focus upon Question 20, which asks what the overall value of the course is, and question 21, which asks about the overall quality of instruction.

Table 5.5 presents the averages for Questions 20 and 21 for the Department of Economics, the Gatton College of Business and Economics, and the College of Arts and Sciences. The questions are answered by students on a 4 point scale with 1 being "poor" and 4 being "excellent." A rating of 3 is "good." Hence for both the quality of instruction and the overall value of economics courses, most students rate the department as better than good. As can be seen, the averages for these two questions are remarkably stable over time and across colleges. The Department of Economics appears to be doing as well as the Gatton College as a whole and as well as the College of Arts and Sciences as a whole. Perhaps more importantly, there is no appreciable decline over the five year period of the self study. In spite of the increasing burden of the undergraduate programs, the quality of teaching has remained the same or slightly

increased. One can also argue that there may be a slight increase in the overall value of our courses.

Table 5.5: Teaching Evaluations

	Economics		Gatton College		Arts And Sciences	
	Quality of Instruction	Value of Course	Quality of Instruction	Value of Course	Quality of Instruction	Value of Course
Fall 2004	3.3	3.2	3.4	3.3	3.3	3.2
Spring 2005	3.3	3.2	3.4	3.3	3.3	3.2
Fall 2005	3.4	3.3	3.4	3.3	3.3	3.2
Spring 2006	3.3	3.2	3.4	3.2	3.3	3.2
Fall 2006	3.4	3.2	3.4	3.3	3.3	3.2
Spring 2007	3.2	3.1	3.4	3.3	3.4	3.2
Fall 2007	3.3	3.2	3.4	3.3	3.3	3.2
Spring 2008	3.3	3.2	3.4	3.3	3.4	3.2
Fall 2008	3.4	3.3	3.4	3.3	3.4	3.2
Spring 2009	3.4	3.3	3.4	3.3	3.4	3.2
Fall 2009	3.3	3.2	3.4	3.3	3.4	3.2
Spring 2010	3.3	3.2	3.4	3.3	3.4	3.3
Fall 2010	3.4	3.3	3.4	3.4	3.4	3.3
Average	3.33	3.23	3.4	3.3	3.36	3.22

Concern occasionally arises with teaching evaluations that instructors buy higher teaching evaluations with higher grade distributions. A comprehensive evaluation of grade point distributions is well beyond the scope of this study. However, when measuring average GPAs given out across all economics courses in the fall semesters of 2000, 2005, and 2010 the respective averages are 2.946, 2.807, and 2.944 and the overall average over the ten year period is 2.868 raising no significant concerns regarding grade inflation.

5.D.2 Alumni Survey

An alumni survey was designed and administered online to alumni of all types of economics majors. Generally, the survey emphasis was on factors reflecting program quality and post-graduation activity. There are five major areas in the survey. The first area asked basic demographic questions. The second area asks about components of the major such as advising, career center and extra-curricular clubs and how important they were to the student. The third area asks alumni to rate aspects of the Economics Program. The fourth area asks respondents how well various aspects of the program helped in the development of skills. And the final and fifth area asks about what the respondent has been doing since the individual left the University of Kentucky including some open ended questions about jobs and earnings.

The request to complete the survey was sent to majors who graduated in 2000 or later. Of the 374 who received the request, 135 alumni completed the survey for a response rate of 36%. Of

those completing the survey, 34% were Gatton College economics majors, 33% were Arts and Science economic majors, 24% were Foreign Language and International Economics majors, and 6% were Mathematical Economics majors. Five respondents did not indicate type of major. The surveys were completed by 68% male and 32% female respondents. The portion of respondents who were Kentucky residents was 52%. Alumni were fairly evenly distributed across graduation year.

Table 5.6 reports responses for the importance of various aspects of the program to the alumni. One might assume that former students who answered that they did not participate might have done so because they felt the item was unimportant. Results would seem to confirm that students value the ECO 499 capstone experience, and for those that participate in internships, they feel they are important. It is somewhat concerning that the Career Center is not seen as being more important and college level advising does not fare well either. Concerns are frequently raised about college level advising in both the College of Arts and Sciences and in the Gatton College of Business and Economics, but both colleges have been taking steps over the past couple of years to improve advising services. It is also a concern that students do not find the Economics Society to be more important and this is something the department and undergraduate officers can address to try to improve the role of the student organization for our majors.

Table 5.6: Importance to Program at UK, n=135

How important was each of the following your program at UK?	Very Important	Somewhat Important	Not Important	Did Not Participate
An Internship Program	25	12	7	91
An Independent Study	5	18	11	101
A Study Abroad Experience	29	10	6	90
The Career Center	18	41	29	47
A Capstone Course (ECO499)	36	35	11	53
My Faculty Advisor	36	49	27	23
The College Advising Center in my College	17	32	51	35
The Economics Society	4	19	20	92

Table 5.7 below shows how 135 alumni rate various aspects of the undergraduate program. When rating lower level economics courses, 96% of students who rate say that courses are satisfactory, good, or excellent and 100% of respondents make the same claim for 300 and 400 level economics courses. Students also appear to be satisfied with the number of elective courses offered and the ability to enroll in economics courses that the student needs. When rating other courses in the Gatton College and in the College of Arts and Sciences, while few find them unsatisfactory, our students do not rate these courses as highly as their economics courses. With regard to advising, while students are generally satisfied there seems to be less satisfaction with advising than with courses and general college level advisors do not rate as highly as faculty advisors within the department. And while most students rate advising in the economics department to be satisfactory or better, the department could work toward re-evaluating advising processes in order to increase the number of students who might claim that advising is excellent. Often this goal is difficult to work toward when the department feels short-handed. Given 29% of B&E students who rate say the B&E advising center is unsatisfactory, some re-evaluation of

those services might be in order. Ninety seven percent of students who rate (114 of 117) find the economics program as a whole to be satisfactory or better. However, it could certainly be a department goal to have more than 24% rating the program as excellent.

Table 5.7: Ratings of Aspects of Undergraduate Economics Program, n=135

Please rate these aspects of the Economics Program	Excellent	Good	Satisfactory	Unsatisfactory	Not Applicable
Lower level Economics Courses (ECO201 and ECO202)	36	55	19	4	21
Upper level Economics Courses (300 and 400 level)	49	56	11	0	19
Number of elective courses offered	23	59	29	4	20
Ability to get into economics you needed	50	45	17	4	19
Other business college courses	13	52	31	5	34
Other College of Arts and Science courses	17	53	31	3	31
My Economics Faculty Advisor	31	37	24	10	33
My A&S College Advisor	17	29	23	7	59
My B&E College Advisor	10	19	19	16	71
A&S Advising Center	7	17	28	7	76
B&E Advising Center	7	16	21	18	73
Availability of Economics Faculty	41	43	30	2	19
The Economics Program as a Whole	28	72	14	3	18

Table 5.8 below provides a summary of ratings on how well the undergraduate program and coursework helped students develop various abilities. It is encouraging to see that most students feel that their abilities to write, discuss, analyze, think critically, understand economic relationships and use economic theories to analyze events are well-developed due to their participation in the economics program. Students also seem to feel that the program has been useful in helping them develop a global perspective and appreciate the power of economic analysis to address real world issues. The two areas that are relatively the weakest, while still strong in absolute terms, are the development of oral presentation skills and the ability to apply quantitative methods to real world economic situations. Given that our capstone course (ECO 499) is the only course that formally requires oral presentation, it is not surprising that students feel the program does not help them develop oral presentation skills. On a more informal basis, some other upper level courses do include oral presentations in the class, but the department has not set it as a specific goal to focus on this type of skill development. Also, as many majors are only exposed to certain quantitative application skills in one course, ECO 391, it is not surprising

that 20% claim that ability development in this area is poor. And, 41% of alumni indicate that their skills were developed “very well.”

Table 5.8 Economics Program and Ability Development, n=135

3. How well did the Economics program and coursework develop your ability to:	Very Well	Satisfactorily	Poorly	N/A
Discuss and write about economics issues	62	50	4	19
Analyze market forces and discuss their role in business and public policy	56	53	7	19
Think critically	72	42	2	19
Understand the relationship between social and economic changes	71	37	7	20
Use microeconomic and macroeconomic theory to analyze real world economic issues	65	42	9	19
Use quantitative methods (like statistics) to analyze real world economic issues	41	55	20	19
Present information orally	35	58	23	19
Develop a multidisciplinary perspective	48	58	9	20
Develop a global perspective	60	46	9	20
Appreciate the power of economic analysis to address real world issues	74	39	3	19

In considering post-graduation activity, 40% of graduates in the sample have enrolled in and/or completed graduate school within the last ten years and 68% are currently in full-time employment. *Table 5.9* below shows a distribution of starting salaries, current salaries for economics graduates and also provides comparable figures for all business college graduates combined.

*Table 5.9 Starting and Current Salary Distribution:
Economics Graduates and Gatton College Graduates, n=135*

Annual Earnings	All Economics Majors %		Gatton B&E Economics Majors %	
	Starting	Current	Starting	Current
under \$10,000 per year	6.06	8.25	0	4.3
\$10,001 to \$20,000	8.08	4.12	8.7	2.2
\$20,001 to \$30,000	13.13	4.12	4.3	4.3
\$30,001 to \$40,000	37.37	15.46	32.6	10.9
\$40,001 to \$50,000	20.2	17.53	17.4	15.2
\$50,001 to \$60,000	6.06	11.34	4.3	10.9
\$60,001 to \$70,000	2.02	8.25	0	2.2
\$70,001 to \$80,000	2.02	9.28	2.2	2.2
\$80,001 to \$90,000	0	3.09	0	2.2
\$90,001 to \$100,000	2.02	6.19	2.2	2.2
\$100,001 to \$110,000	2.02	4.12	2.2	2.2
\$110,001 to \$120,000	0	2.06	0	4.4
\$120,001 to \$130,000	0	0	0	0
\$130,001 to \$140,000	0	0	0	0
\$140,001 to \$150,000	0	1.03	0	2.2
Over \$150,000	1.01	5.15	0	4.3

5.D.3 New Assessment Efforts for Accreditation

As a Department in the Gatton College of Business and Economics with majors offered in both its home college and the College of Arts and Sciences, the Department is subject to assessment of specific goals and objectives for all undergraduate students within its coursework as part of the Southern Association of Colleges and Schools (SACS) accreditation process. The Department has segmented its coursework into a core curriculum (ECO 201, ECO 202, ECO 391, ECO 401, ECO 402 and ECO 499) and a topic specific curriculum (all upper-division electives, e.g., ECO 477 Labor Economics) with only the core curriculum subject to assessment. The goals and objectives to be assessed within this core curriculum include:

- Learning Goal 1: Critical Thinking: *Learning Objective: Possess the ability to understand and think creatively and strategically about business problems*
- Learning Goal 2: Multidisciplinary Competence: *Learning Objective: Possess a multidisciplinary and global perspective*
- Learning Goal 3: Structured Reasoning Skills: *Learning Objective: Possess analytical, critical, and logical reasoning skills*

- Learning Goal 4: Communication Skills: *Learning Objective: Possess strong written and communication skills*

Two approaches have been used to assess student learning outcomes for the Economics undergraduate program, each utilizing different assessment methods and in different types of courses. The first involves embedded exam questions (EQ) (the assessment method) in topical courses such as principles of economics. The second approach uses case study analysis (CS), written papers (WP), or oral presentations (OP) as the tools to assess learning outcomes in the capstone course (ECO 499 Seminar in Economics).

Embedded questions are used to assess student learning in courses that address specific economic topics. One of the advantages of this method of outcome assessment is that it is unobtrusive and integrated in the tasks in which faculty and students are already involved. Course instructors are responsible for developing the embedded exam questions to be used as the assessment tools in their courses. This allows the questions to be customized to course outcomes and to the learning objectives being assessed. For courses with multiple sections and multiple instructors (such as ECO 201 and ECO 202), the embedded questions are standardized across the sections in which assessment takes place, and the questions are developed by the course instructors.

The Department capstone course represents cumulative learning and retention and captures the final product of the Department’s undergraduate education. The capstone course is also a required course, providing a convenient representative sample of the Department’s undergraduate students. Assessment of student learning undertaken in the capstone course uses case studies, written papers, and/or oral presentations. Using a combination of the three methods provides several advantages. Case analysis and written papers provide students with the opportunity to integrate knowledge from various disciplines and undertake comprehensive analysis and problem solving that may include statistical methods, application of technology and resources, and evaluation of ethical, societal, and global issues. Written papers and oral presentations provide the opportunity for students to exhibit their ability as effective communicators. Only the work of individual students (not student teams) is used to assess learning outcomes.

Table 5.10 Assessment Matrix – Undergraduate Economics Program

Goal	Objective	Curriculum Assessed	Assessment Period	Assessment Method
Critical Thinking	Possess the ability to understand and think creatively and strategically about business problems	ECO 499	Spring 2011	WP/OP/CS
Multidisciplinary Competence	Possess a multidisciplinary and global perspective	ECO 201	Fall 2010	EQ
		ECO 202	Spring 2011	EQ
		ECO 499	Spring 2011	WP/OP/CS
Structured Reasoning Skills	Possess analytical, critical, and logical reasoning skills	ECO 391	Spring 2011	EQ
		ECO 499	Spring 2011	WP/OP/CS
Communication Skills	Possess strong written and communication skills	ECO 499	Spring 2011	WP/OP/CS
Economic Theory	Possess the ability to use microeconomic and macroeconomic theory to analyze real world issues	ECO 401	Fall 2010	EQ
		ECO 402	Spring 2011	EQ

The assessment process is structured on a two-year cycle with the rotation of courses outlined in the table above. Program assessment does not require every student to be assessed. Sampling is acceptable as long as an appropriate and representative sampling method is used. A sampling procedure consistent with SACS guidelines assesses at least forty percent of students in a course.

The Department engaged in a first round of core curriculum assessment during the 2008-09 academic year. At this stage, only ECO 201, ECO 401, ECO 402 (two sections), and ECO 499 (two sections) were assessed. The results appear in the table below.

Table 5.11 Assessment Results, First Round

Goal	Objective	Curriculum Assessed	Assessment Results Section: 1/2
Critical Thinking	Possess the ability to understand and think creatively and strategically about business problems	ECO 499	42%/na
Multidisciplinary Competence	Possess a multidisciplinary and global perspective	ECO 201 ECO 499	66%/na
Structured Reasoning Skills	Possess analytical, critical, and logical reasoning skills	ECO 499	na/90%
Communication Skills	Possess strong written and communication skills	ECO 499	90%/100%
Economic Theory	Possess the ability to use microeconomic and macroeconomic theory to analyze real world issues	ECO 401 ECO 402	88%* 83%/59%

na = not assessed * = sections 1 and 2 combined

The results above for courses with embedded questions, ECO 401 and ECO 402, indicate the percentage of students successfully answering the assessment questions. Note that the assessment of section 2 of ECO 402 included multiple choice questions with multiple answers and the results presented indicate the percentage of students who answered these questions correctly in their entirety. Including students who missed only one of the correct multiple responses would improve the results significantly. The value for ECO 201 reflects the average score of questions answered correctly of ten questions.

The two sections of the capstone course, ECO 499, both assessed communications skills and both sections omitted assessment of multidisciplinary competence. Likewise, only section 1 assessed critical thinking while only section 2 assessed reasoning skills. There seemed to be some difficulty disaggregating these items from communication skills. The results for these learning goals assessed indicate the percentage of students performing at an exemplary or proficient level. The results have led instructors of this course to reconsider the design of their assessment technique and their instructional technique and assignments for the course.

The academic year of 2010-11 involved a live assessment of all courses (two sections of ECO 402 and four sections of ECO 499) other than ECO 202. The results from this assessment appear below. The results above for courses with embedded questions, ECO 201, ECO 401, and ECO 402, indicate the percentage of students successfully answering the assessment questions. Note

that the assessment of section 2 of ECO 402 included multiple choice questions with multiple answers and the results presented indicate the percentage of students who answered these questions correctly in their entirety. Including students who missed only one of the correct multiple responses would improve the results significantly.

Table 5.12 Assessment Results, Second Round

Goal	Objective	Curriculum Assessed	Assessment Results Section: 1/2/3/4
Critical Thinking	Possess the ability to understand and think creatively and strategically about business problems	ECO 499	42%/na/82%/na
Multidisciplinary Competence	Possess a multidisciplinary and global perspective	ECO 201 ECO 499	70% na/na/82%/na
Structured Reasoning Skills	Possess analytical, critical, and logical reasoning skills	ECO 499	na/90%/na/100%
Communication Skills	Possess strong written and communication skills	ECO 499	90%/100%/73%/100%
Economic Theory	Possess the ability to use microeconomic and macroeconomic theory to analyze real world issues	ECO 401 ECO 402	59% 73%/61%

na = not assessed

All four sections of the capstone course, ECO 499, assessed communications skills. Sections 1 and 3 also assessed critical thinking while sections 2 and 4 also assessed structured reasoning skills. Likewise, only section 3 assessed multidisciplinary competence. There still seemed to be some difficulty disaggregating these items from communication skills. The results for these learning goals assessed indicate the percentage of students performing at an exemplary or proficient level. Accrediting bodies stipulate the need for assessment and the establishment of a benchmark. As our assessment process is only a few years old and we continue to fine tune the process, the department has set an initial standard of a 70% success rate as an appropriate standard for assessment as well as written action to improve student learning outcomes.

In considering these results for economics courses as a part of the B&E course curriculum, there is an important factor to keep in mind. Economics courses typically serve a much wider audience than other courses in the Gatton College in that ECO101 and ECO201 meet University Studies Program requirements so only about a third of the students taking the courses are B&E majors. Additionally, for upper level economics courses, Arts and Science Economics majors are in the courses and, as seen earlier in this section, they have significantly lower GPAs. In assessment efforts to date, the department has chosen to look at learning outcome results for all of the students in the courses. If B&E students were pulled from the sample and assessed separately, scores would be significantly higher. In future assessments we plan to compare this subsample of students as well as the subsample of A&S students to the full sample to assess our effectiveness uniquely in the business college with regard to business students and for the College of Arts and Sciences with respect to Arts and Sciences students.

Additionally, there is concern about students who do not have high enough GPAs for admissions into B&E who chose an economics major through Arts and Sciences as their second best option. This is a major contributing factor to the lower GPAs of the A&S student and contributes to

some downward drag on the assessment numbers reported in this section, but the primary concern is the academic well-being of the students making this major choice. If some of these students are majoring in economics as a last resort and are not qualified, we feel we are doing them a disservice by allowing them to continue to move through the program. This is the motivation for our newly instituted requirement of a grade of C or higher in ECO 201 and ECO 201 for being allowed to register in ECO 401.

Each professor has detailed improvement actions based upon analysis of their assessment results. For instance, in ECO 201 we have implemented the use of “clicker” technology to increase the degree of engagement and interaction during class. Currently about half of the students are in sections using this technology and we continue to expand its use and are finding it very effective. Additionally there has been an increase in the number of active learning techniques and segments incorporated into classes and additional problem sets are being offered in class and through Blackboard to provide students more opportunities for application of content with the goal of improving mastery of the content. At a level of intervention beyond the specific course instructor, the department and college have allocated more resources toward the tutoring lab and are currently developing and adding on line tutoring services to complement the current hours that take place in the tutoring lab.

Faculty members of other assessed courses have also implemented measures to improve learning outcomes. ECO 391 Statistics for Business and Economics, which is generally taught by graduate students, has implemented a common homework system and set of embedded assessment questions across the multiple sections. Going forward, ECO 401 Intermediate Microeconomics, which is taught by different professors each semester, has chosen a common range of material to assess so that the Department can better evaluate student learning outcomes. ECO 402 Intermediate Macroeconomics is assessing a broader range of course material than that covered in the first round of assessment. Additionally, a rubric has been developed for multiple selection problems to better capture student proficiency going forward.

ECO 499 varies by topic at the discretion of the professor. Students need to be informed during the advising period of the relevant upper-level economic electives that, while not prerequisites for the individual sections, are addressed in each section. For example, ECO 499-001: The Economics of East Asia focuses primarily on international trade and finance issues due to the structural nature of the economies in the area; a student who has not taken ECO 471 International Trade or ECO 472 International Monetary Economics should be strongly discouraged from enrolling in this section. Given the limited enrollment of the course, students often register for whatever section has available seating. Better coordination in the advising process could improve this problem. The Department has addressed this issue by providing presentations to students prior to registration on the nature of the upper-level electives being offered. These sessions are advertised the Economics Society and incentivized with pizza. Additionally, student-faculty sessions prior to project completion and presentation should be rigorous so that the student can better communicate difficult issues and consider potential questions during the in-class presentation. One issue that needs to be addressed is that there seems to be a bit aggregating of learning objectives in this course primarily into the communication skills component. The logic seems to be that to construct and effective oral/written argument a student, naturally, must

demonstrate critical thinking and/or structured reasoning skills. That is true, of course, but for assessment purposes a process of disaggregating these elements needs to be implemented.

5.E Faculty Assessment of Undergraduate Education

On the survey to faculty, some replies related to undergraduate education were found in replies to questions about the department in general and input was also provided on specific questions regarding the undergraduate program. Generally, faculty members indicate that our undergraduate program is successful and several recommendations are made for future direction and program enhancement. From comments found in the general department questions respondents comment on the value of teaching specialist and faculty who teach at the undergraduate and graduate level who are actively engaged in research and other professional activities. The following two comments both offer important recommendations for enhancing the undergraduate program:

“Develop a cadre of on-line courses to generate revenue – but need to invest up front to insure the courses are designed well.”

“Hire our own professional staff person to work within the department and help coordinate and develop undergraduate internships.”

The fourth general question asks, “What resource neutral changes would you like to see in the department?” The following three comments raised legitimate concerns with regard to this question:

“It is difficult to understand why we don’t receive more resources for the large number of A&S majors we have. The extent to which fault for this lies with the Department vs. the College vs. general University priorities is unclear.”

“I’d like to see Economics (the department, and the field) get more recognition than it does here on campus. Economics can contribute so much, to so many fields, but that potentiality is not very well-appreciated at UK, and far less has it been realized.”

“There is a chicken-egg problem, in this as in many such situations. Take an example: Economics has already collaborated fruitfully with Math via the math econ program, making it possible to hire a faculty member who contributes to both departments. I hope that this interdepartmental collaboration with Math continues indefinitely.”

Three questions were also asked specifically regarding the undergraduate program.

Question 1: What concerns do you have, if any, with our current undergraduate program?

A varied set of concerns was raised in response to this question. With respect to the intermediate theory courses, ECO 401 and ECO 402, there are concerns that students should be able to take these sooner than they are. Recent curriculum changes now require ECO 401 for other upper

level economics courses. This, in conjunction with offering additional sections, should help more students take these theory courses earlier.

Some unease was expressed that 400 level classes are sometimes taught by adjunct rather than faculty and that intermediate theory courses as well as ECO 391 are sometimes taught by graduate students. However, current staffing and resource constraints make it difficult to avoid. Also, one respondent mentions that more students should be taking ECO 491, our econometrics course.

Concerns were expressed about coordinating with the College of Arts and Sciences for regular economics majors and for the Mathematical Economics majors. Additional faculty indicated that it would be good if more faculty members were involved with the economics society and if the advising process could be improved. Many of these same concerns show up later in the form of recommendations.

Question 2: Are there areas in which you would like to see the curriculum revised? If so, how?

In reviewing faculty replies to this question, three common themes emerged:

i. Many faculty members would like to expand the selection of 300 and 400-level course offerings. There are many areas of expertise within our faculty that we are now fully capitalizing on in the undergraduate curriculum. Also, we would like to offer more 300-level courses to non-majors. All of these comments are made with the caveat that this is difficult to do with our limited number of faculty and that this has been the major reason for not making these enhancements to the undergraduate curriculum. The department has recently added a new game theory course to enhance the mathematical economics program, but it has also been recommended that we offer courses like health care economics, environmental economics, and law and economics regularly.

ii. Some respondents comment that there should be more consistency in the sections of ECO 401 and ECO 402 and more coordination of content between the two courses. Additionally, there is concern that the math content and the level of rigor in the intermediate theory courses should be evaluated to see if it is at an appropriate level. It has also been recommended that one section of ECO 401 with a higher level of mathematical rigor be offered for mathematical economics majors and students considering graduate school in economics. Also, concerns were stated about having prerequisite grade requirements for enrolling in ECO 401, but the department did vote to implement these prerequisites and they go into effect for the first time during the fall 2011 course registration period.

iii. The department does not yet offer any on-line courses but comments indicate a need to begin exploring the development of some courses that are offered in this fashion.

Question 3: If you are an advisor, what are your thoughts about advising? Are you satisfied with how we do it? If not, how might it be improved?

Based on faculty comments, it is clear that faculty advisors generally find the restructuring that shifted “hold lifting” to professional advising staff to be an improvement. It is more efficient for students to seek advice on general education requirements from these trained advisors and then come to economics faculty advisors with specific questions about economic course selection, careers in economics, research, and graduate school. Given students receive advice from the professional advisors and faculty advisors, comments were made indicating that this process is more effective the more the different advising units communicate with each other. However, faculty advisors also expressed the concern that now that our majors are not required to see their economics faculty advisor to get the registration hold lifted, fewer students come to the department for advising and important connections are compromised. One advisor recommends a “two-track approach” to reconnect: “We can consider a two-track approach in faculty-student interaction. We can have a general gathering on one track and have an individual meeting on the other.”

Another respondent points to the importance of preparing students who would like to attend graduate school, “Although only a very small number of our undergraduates pursue graduate study in economics, we need to do more to help these students prepare. Students applying to Ph.D. programs often begin taking advanced courses in math and economics too late in the process. Perhaps those teaching ECO 201 or ECO 202 could be asked to briefly discuss what students thinking of grad school should do during their sophomore and junior years.” One respondent suggested that having more students take ECO 395, independent study, would be a good way to increase communication and interaction between our stronger students and the faculty.

5.F Analysis of Strengths and Recommendations for Quality Enhancement in Undergraduate Education

Overall, the self study of the undergraduate aspects of the department finds a program that is thriving and meeting the needs of our undergraduates. The **number of majors** has seen a moderate decline over the period of the self-study due primarily to the absorption of the Foreign Language and Economics Major into the International Studies Program, however, the new Mathematical Economics major has seen substantial growth as has the minor in economics. Additionally, enrollment measures for courses, teaching evaluations, specific course assessments, and alumni survey results all indicate a program where **learning and skill development** have occurred and alumni indicate **overall satisfaction** with their educational experience.

With regard to **programs and curriculum** offered to undergraduates, the department offers multiple options for majoring in economics and the new major in International Economics and Business will soon be available. Despite resource constraints, the department offers a wide array of electives and has been entrepreneurial in developing a new game theory course and special topics courses on sub-Saharan African Economic Development, the Economics of Food, and a capstone course studying **Freakonomics**.

In addition to a large number of majors in the program, the **majors vary greatly in their classroom performance**. Specifically, the average grades of A&S majors in required upper-level

courses (ECO 401 and ECO 402) are far below that of B&E majors and significantly below that of FLIE majors. Faculty are concerned about the ability of some of the weaker students, (who might be choosing an economics major because they cannot gain entrance to the business college), to be able to successfully complete the program. New prerequisite grade requirements of a C or higher in ECO 201 and ECO 202 are being applied for enrollment into ECO 401. Hopefully, this will ensure that the students moving forward in the program are more likely to be able to complete their degree. This will also improve the quality of upper level elective courses if instructors do not have to accommodate students who have not mastered the basic principles of economics. The department realizes that this change will also alter our learning assessment outcomes that we gather regularly. Disaggregation by type of major has not been done.

The self-study process has highlighted the need to evaluate the content of the intermediate theory courses, ECO 401 and ECO 402, to consider consistency across sections and instructors and continuity in the transition from ECO 401 to ECO 402. Also, faculty and students alike are interested in developing and offering additional 300 level topics courses designed for both majors and non-majors. This would allow the department to capitalize on the many areas of expertise within the faculty. The department is also investigating the development of a cadre of courses to be offered online or in a hybrid course format.

Course specific assessment techniques, newly implemented in the last five years indicate measurable student learning in economics courses at both the upper and lower levels. Each year the department fine tunes these techniques and we plan to continue doing so. But as a result of these assessment outcomes, the out-of-class support offered to students through the LEAP tutoring lab has been expanded to offer online tutoring, and we hope to eventually provide tutoring for ECO 391, Statistics for Economics and Business. Additionally, instructors of these courses have begun to offer enhanced pedagogical techniques such as certain forms of active learning and the use of “clicker” technology and the redesign of assignments and content organization to ensure that learning objectives are being met in our courses.

The *advising process* has seen immense improvement over the period of the self study, but this is still an area of concern and emphasis for enhancement. Structural changes have made it so economics faculty members no longer lift holds or advise for the general education portion of the major. This has generated the need for increased communication between the department and the professional advisors in the colleges of Arts and Science and Business and Economics. This structural change is an improvement as advising now focuses primarily on which economics electives to take and preparation for internships, careers, or graduate school. However, since students are no longer required to come to an advisor in economics, the overall level of faculty/student contact has diminished. Faculty members have recommended approaches to increase one-on-one interaction between students and faculty and to allow for group advising sessions. For the past four semesters, the department has held a group advising/economics society meeting at which faculty highlight the elective courses they will be teaching the next semester to help majors “shop” for classes. These sessions have been very popular with students and very informative for students and faculty alike. Additionally, professional advising staff have attended the sessions and have been able to learn more about the economics major and specific economics classes.

One other area of concern related to advising involves how the department identifies and works with majors who are contemplating economics graduate school. Currently, these students are identified informally and often too late to be advised to take specific courses that would be beneficial in preparation for graduate school. Additionally, we are able to arrange research experiences for some through the ECO 395 course or work in CBER or the Poverty Center, but not for all. The department is considering ways to identify these students sooner and work more closely with them. One possibility is to expand our current ECO 395 independent study program, but each student must have a faculty advisor/sponsor and with almost 500 majors, we are limited in how many students we allow to take this option. Hiring a staff person to coordinate internships and research experiences and to help undergraduates with the graduate school application process could be immensely valuable. Additionally, the department continues to support and hopes to expand the role of the Economics Society in providing opportunities for our majors to hear from noted economists about their work and learn what economists do.

6. *Departmental Centers and Outreach*

As discussed earlier, in this section we only include some of the service work done by faculty and staff in the Department of Economics. Specifically, we exclude professional service such as refereeing, reviewing grants, and serving on editorial boards. These services are discussed in the *Section 3* as we felt they were indicative of the research reputation of our faculty. We also exclude any specific discussion of the internal service -- service of our faculty within the Department and the University as the extent and nature of this service is likely to be similar to that found in other academic units on campus. While not specifically detailing this service, the thoughts and concerns of the faculty in regard to service responsibilities are discussed here and are reflected in our discussion of strengths and recommendations for quality enhancement in service.

The focus, then, of this section is on the activities of the Center for Business and Economic Research (CBER) and the University of Kentucky Center for Poverty Research (UKCPR), both of which are housed within the Department of Economics. In addition, we discuss the service work of individual faculty including service on committees or commissions of federal, state, and municipal agencies; interviews with the media; and testimony before legislative bodies or commissions.

Both CBER and UKCPR play important roles in our research and education missions as well as service, making it difficult to categorize their contributions exclusively as “outreach.” They play an important role in scholarly research in a number of ways. First, some of the most prestigious publications of the faculty in the department arose directly from their research projects. Second, the opportunity of faculty to work on funded research projects provides an important source of funding that reduces the need for faculty to supplement their income through other means, including teaching, for example, an activity that would have fewer synergies with the research. The centers play a role in our education mission through employment of both graduate and undergraduate students. In addition to being a source of funding that enables students, particularly at the graduate level, to continue their studies, the centers provide students with an opportunity to develop and apply their skills to applied economic analysis.

The Center on Poverty Research has clearly defined missions in both research and education. The UKCPR provides a number of opportunities for funding of scholarly research on poverty for faculty throughout the University. The Center funds and administrates a workshop that brings renowned scholars on poverty issues to campus. In addition, UKCPR has instituted a visiting scholar program that brings scholars whose work overlaps or who work with UK faculty to campus for stays of generally one week. UKCPR serves the Department (and University) missions in graduate education by providing funding for graduate students as well as opportunities to attend and participate in UKCPR workshops and other forums for research. In addition to growth in the core areas of the department, there are two obvious areas of the department for expansion: the Center for Business and Economic Research (CBER) and the Center for Poverty Research (UKCPR).

The Center for Business and Economic Research is the applied business and economics branch of the Gatton College. CBER conducts a variety of applied business and economic research

projects and provides consultation services to government agencies, businesses, media outlets, and the general public. In addition, CBER performs contract research for a variety of public and private sector clients. The CBER research program involves faculty in Economics and in other units in the Gatton College to assist on various research projects. CBER already conducts nationally prominent research, and is well positioned to expand its role. Issues such as economic development, workforce issues, health policy, and entrepreneurial activity that are of great importance to Kentucky have been researched by UK faculty through CBER. An expansion of CBER's role is a natural area for additional funding as the University moves forward.

The Center for Poverty Research conducts nationally prominent research on one of the most glaring of what a past president of the University of Kentucky referred to as "Kentucky Uglies." The UKCPR was established as one of three federally designated Area Poverty Research Centers with core funding from the U.S. Department of Health and Human Services. The Center's research mission is a multidisciplinary approach to the causes, consequences, and correlates of poverty and inequality in the southern United States.

During the review period these two centers have received funding from numerous sources including the Federal Reserve Bank of Cleveland, Fulbright Commission, Kentucky Cabinet for Economic Development, Kentucky Cabinet for Education, Kentucky Cabinet for Health and Family Services, Kentucky Community and Technical College System, Kentucky Department of Corrections, Meals On Wheels Association of America, Merck Foundation, Spencer Foundation, Upjohn Institute for Employment Research, U.S. Department of Agriculture, U.S. Department of Health and Human Services, and U.S. Department of Labor.

Economics faculty are central to both centers. And since both centers focus on applied microeconomics research in the areas of public labor and health, increasing the number of faculty involved in these centers complements the planned growth in the core areas of the department and enhances our growth towards being a top public university economics department. Faculty from other units on campus are also active in the research programs of both, and our plans would be to further enhance the cross-disciplinary focus of these centers. Both Centers together typically fund approximately eight graduate students and also actively involve graduate students in on-going research freeing up department and college money to fund other graduate students. Expanding these Centers would enhance the graduate program in both the department and the college. In addition, both centers compete successfully for national research funding and facilitate nationally prominent research. In fact, the two centers combined received grants for approximately \$12.2 million during the review period, which represent a substantial share of total research support in the Gatton College of Business and Economics. Expanding these two centers would allow the centers to focus even further on attracting federal research dollars, which is an integral part of efforts to move the University towards Top 20 status. Finally, both Centers engage in the type of policy-oriented research that has a direct impact on the citizen of Kentucky. Increasing research that directly affects the lives of all Kentuckians is a stated goal of both our university provost and president.

6.A The Center for Business and Economic Research

6.A.1 CBER's Mission

From its website (<http://gatton.uky.edu/CBER/Index.html>):

The Center for Business and Economic Research (CBER) is the applied business and economic research branch of the Gatton College of Business and Economics. Housed within the Department of Economics, CBER has a long history of conducting applied economic studies and is the leading source of information on the Kentucky economy.

CBER conducts many applied business and economic research projects throughout the year, serves as the main storehouse of business and economic data and information on Kentucky, and provides consultation services to government agencies, businesses, media outlets, and the general public.

In addition, CBER performs contract research for a variety of public and private sector clients, including conducting projects for many Kentucky state government agencies. Besides conducting contract research, CBER also serves as the main depository of economic information in the Commonwealth. CBER maintains the Kentucky Economic Information Service (KEIS), produces the *Kentucky Annual Economic Report*, and provides economic and public policy information to interested persons, businesses, and media across the commonwealth.

6.A.2 CBER Personnel and Resources

The Director of CBER is Kenneth Troske, Professor of Economics. The Associate Director is Christopher Jepsen, Assistant Professor of Economics. CBER currently employs three staff, Michael Childress (Dean Assistant) and Anna Stewart (Economic Analyst), and Jeannie Graves (Staff Support Associate II, shared with Economics Department).

CBER staff is physically located in the Economics wing of the Gatton Business and Economics Building with additional offices for graduate students and a conference room also on the third floor.

CBER has traditionally employed both undergraduate and graduate students to assist in its external projects. CBER has employed a number of very talented students, particularly at the undergraduate level.

6.A.3 CBER Grants and Fund Generation

The primary focus of *CBER* is to engage in funded applied economic and business research for both government and private agencies. Clients during the review period include Louisville Gas and Electric, Kentucky Energy and Environment Cabinet, Kentucky Community and Technical College System, Kentucky Council on Post-Secondary Education, National Center for Real Estate, Appalachian Regional Commission, Kentucky Education and the Arts Cabinet, Kentucky Arts Council, Alfred P. Sloan Foundation, and Spencer Foundation. *Table 6.1* lists annual revenues for CBER from external funding with all funding given in the year of the award, not necessarily the year of work for multi-year projects.

*Table 6.1: Annual Revenues of CBER, 2004 – 2010
In current year dollars*

Year	Amount
2004	\$157,908
2005	429,917
2006	683,673
2007	344,847
2008	384,484
2009	55,000
2010	159,451
Total	2,215,280

6.A.4 CBER Scholarly Research

In addition to reports for external contracts, CBER generates scholarly outputs in several venues. The first of these are articles generated for the *Kentucky Annual Economic Report*, and the second are articles for publication in academic journals.

6.A.5 Kentucky Annual Economic Report

By Commonwealth Statute 164.738, CBER is to produce an annual report, the *Kentucky Annual Economic Report*. This report has traditionally contained articles from CBER staff, Department graduate students and faculty in the Department as well as the contributions of other economists and scholars in academia or government agencies. In 2011 the *Annual Report* contained seven articles on the following topics: 1) economic trends and outlook for U.S. and Kentucky, 2) poverty in Kentucky, 3) bridging the achievement gap in Kentucky, 4) dual enrollment in Kentucky, 5) oral health in Kentucky, 6) Federal health reform and its implications for Kentucky, and 7) Kentucky’s digital divide. The articles were principally written by CBER faculty, staff, and graduate students but co-authors included Heidi Hiemstra of the Kentucky Council on Postsecondary Education, Debra Miller of the Council of State Governments, Tim Shaughnessy of the Kentucky Community and Technical College System, and Amy Watts of the Foundation for a Healthy Kentucky. Copies of the Annual Report are available at the CBER website, <http://gatton.uky.edu/CBER/Index.html>. Reports are distributed to the Governor’s Office and to each state legislator as well as a mailing list in 2010 of roughly 700 business-people, government employees, and economists around the state. Portions of the *Annual Report* are also discussed at the Gatton College Annual Economic Outlook Conference in Lexington.

6.A.6 CBER and Public Relations

CBER research is frequently cited in Kentucky newspapers and other media outlets and CBER faculty and staff, most frequently Kenneth Troske, have often been interviewed on issues related to CBER projects or economic issues that pertain to Kentucky.

6.B The University of Kentucky Center for Poverty Research

The website for the Center for Poverty Research (<http://www.ukcpr.org>) provides a brief summary of its objectives and history,

The Center for Poverty Research was established in October 2002 as one of three federally designated Area Poverty Research Centers with core funding from the Office of the Assistant Secretary for Planning and Evaluation (ASPE) in the U.S. Department of Health and Human Services. The UKCPR is a nonprofit and nonpartisan academic research center housed in the Department of Economics at the University of Kentucky.

The Center's research mission is a multidisciplinary approach to the causes, consequences, and correlates of poverty and inequality in the United States, with a special emphasis on the residents of the South. A focused research agenda on poverty among the residents of the South is critical to our Nation's poverty research effort because low-income populations in the South face a different set of challenges than comparable groups in other parts of the United States, which is manifested in a host of economic and social disparities including higher rates of poverty, inequality, and welfare-program utilization. UKCPR staff and faculty affiliates reflect the cross-disciplinary emphasis of the research agenda, with representatives from economics, political science, public health, public policy, rural sociology, social work, and sociology. The Center is governed by a Director, an Associate Director, a National Advisory Board consisting on nationally known poverty scholars and policy makers, and an Executive Committee consisting of faculty located here at the University of Kentucky.

The initial funding from ASPE that established UKCPR was \$1.179 million for three years with the possibility for renewal after this period. A competitive renewal grant was awarded again in 2005 for the 2005-2008 period, followed by a series on one-year extensions from 2008-2010.

6.B.1 UKCPR Personnel and Research Associates

James Ziliak, Endowed Chair of Microeconomics, is the Director of the Center as well as the Principal Investigator on the grant for initial funding. Mary Boulton is a Staff Associate who manages much of the operations of Center. Christopher Bollinger, Gatton Professor of Economics, served as Associate Director from 2005-2007, and Richard Fording, Professor of Political Science, served as Associate Director from 2007-2010.

The National Advisory Board for the Center includes Sheldon Danziger (Henry J. Meyer Collegiate Professor of Public Policy, University of Michigan, and Co-Director of the University of Michigan National Poverty Center), Kathleen Mullan Harris (Professor of Sociology, University of North Carolina-Chapel Hill), Don Oellerich (Deputy to Chief Economist, Office of Human Services Policy, Office of Assistant Secretary for Planning and Evaluation, United States Department of Health and Human Services), William Rodgers (Edwin L. and Francis L. Cummings Associate Professor of Economics, The College of William and Mary) and Seth Sanders (Professor of Economics and Public Policy, Duke University of Maryland). The internal Executive Committee includes Christopher Bollinger (Economics), Jennifer Swanberg (Social

Work), Kenneth Troske (Economics), and Julie Zimmerman (Community and Leadership Development).

In addition, there are 31 Faculty Affiliates representing seven colleges on the UK campus. In a typical year UKCPR funds two to three doctoral students from the Economics Department.

6.B.2 UKCPR Research and Funding

The UKCPR has conducted original research and established a number of programs during its nine years of federal authorization (2002-2011) to build the research capacity of poverty scholars both at the University of Kentucky and nationally. These programs include the following:

- *Internal Research Support Program*, a competitive grant program open to University of Kentucky faculty affiliates conducting research on issues salient to low-income populations in the South and the wider U.S.
- *Regional Small Grants Program*, a competitive program providing research support to non-University of Kentucky faculty conducting poverty research with an emphasis on the South
- *Young Investigator Development Grants Program*, a competitive program providing support to non-University of Kentucky tenure-track assistant professors conducting poverty and inequality research on the U.S.
- *Emerging Scholars Program*, offering tenure-track assistant professors in the social sciences the opportunity to visit the UKCPR, interact with faculty and students in residence, present their research, and receive professional mentoring
- *HBCU, 1890s, and Tribal Colleges and Universities Small Grants Program*, a competitive program that provides development funds to support research on poverty in America by social science faculty located at Historically Black Colleges and Universities (HBCUs), 1890, and Tribal Colleges and Universities
- *Joint Poverty and Policy Seminar Series*, a cross-disciplinary seminar series that brings noted poverty scholars to the University of Kentucky campus
- *Graduate Student Research Assistantships*, providing support to doctoral students at the University of Kentucky conducting research on low-income populations
- *Insights on Southern Poverty*, a newsletter published annually that provides non-technical summaries of new research on issues salient to poverty in the South

Annually, UKCPR receives about 50 applications for competitive funding on 10 awards in three categories. *Tables 6.2 – 6.6* provide a summary overview of program recipients.

Table 6.2: Regional Small Grants Program

Name	Institution	Amount funded
Year 1 (10/02-9/03)		
Jacob Vigdor	Duke University	\$19,394.00
George Borjas	Harvard University	\$20,000.00
Janet Bronstein	University of Alabama at Birmingham	\$20,000.00
Year 2 (10/03-9/04)		
Shiferaw Gurmu	Georgia State University	\$19,998.00
Leonard Lopoo	Syracuse University	\$20,000.00
Elizabeth Cascio	University of California, Davis	\$18,422.00
Maryah Stella Fram	University of South Carolina	\$20,000.00
Year 3 (10/04-9/05)		
Stephen Bronars	University of Texas at Austin	\$20,000.00
Scott Allard	Brown University	\$20,000.00
Debra Henderson	Ohio University	\$19,934.70
Sarah Reber	University of California, Los Angeles	\$18,395.00
Year 4 (10/05-9/06)		
Krista Perreira	University of North Carolina Chapel Hill	\$20,000.00
Todd Stinebrickner	University of Western Ontario	\$20,000.00
Robert Hawkins	New York University	\$20,000.00
Hiromi Tanaguchi	University of Louisville	\$12,792.00
Year 5 (10/06-9/07)		
Jason Fletcher	Yale University	\$15,800.00
Dan Immergluck	Georgia Tech	\$19,900.00
Charles Baum	Middle Tennessee State University	\$17,850.00
Martha Bailey	University of Michigan	\$20,000.00
Year 6 (10/07-8/08)		
Peter Kuhn	University of California Santa Barbara	\$16,000.00
Tami Gurley-Calvez	West Virginia University	\$10,000.00
Rachel Kimbro	Rice University	\$9,900.00
Lenna Nepomnyaschy	Columbia University	\$20,000.00
Year 7		
Colleen Heflin	University of Missouri	\$20,000.00
Scott Carrell	University of California at Davis	\$20,000.00
Deirdre Oakley	Georgia State University	\$20,000.00
Year 8		
Enrico Moretti	University of California-Berkeley	\$20,000.00
Ebonya Washington	Yale University	\$20,000.00
Seth Sanders	Duke University	\$20,000.00
Year 9		
Joan Hermsen	University of Missouri	\$20,000.00
Susan Parish	Brandeis University	\$20,000.00

Elizabeth Votruba-Drzal	University of Pittsburgh	\$20,000.00
		\$598,385.70

Table 6.3: Young Investigators Development Grants Program

Name	Institution	Amount
Year 1 (10/02-9/03)		
No Program		
Year 2 (10/03-9/04)		
Charles Baum	Middle Tennessee State University	\$5,000.00
Matthew Foulkes	University of Missouri	\$5,000.00
Gary Hoover	University of Alabama	\$5,000.00
Deborah Hwa-Froelich	St. Louis University	\$5,000.00
Year 3 (10/04-9/05)		
Jennifer Matjasko	University of Texas at Austin	\$5,000.00
Lenore McWey	Florida State University	\$5,000.00
Vicki Lens	Columbia University	\$5,000.00
Year 4 (10/05-9/06)		
Alison Jacknowitz	American University	\$5,000.00
Jeremy Hall	University of Alabama at Birmingham	\$5,000.00
Year 5 (10/06-9/07)		
Sarah Hamersma	University of Florida	\$5,000.00
Qin Gao	Fordham University	\$5,000.00
Year 6 (10/07-8/08)		
Andrew Grodner	East Carolina University	\$5,000.00
Amalia Miller	University of Virginia	\$5,000.00
Daphne Hernandez	Pennsylvania State University	\$5,000.00
Kalena Cortez	Syracuse University	\$5,000.00
Year 7		
Andrea Hetling	Rutgers University	\$7,500.00
Kasey Buckles	University of Notre Dame	\$5,000.00
Kevin Thomas	Penn State University	\$7,500.00
Year 8		
Elizabeth Rigby	University of Houston	\$7,500.00
Mark Leach	Pennsylvania State University	\$7,500.00
Jenifer Bratter	Rice University	\$7,500.00
Chris Wildeman	Yale University	\$7,500.00
Year 9		
Brian Cadena	University of Colorado	\$7,500.00
Celeste Carruthers	University of Tennessee at Knoxville	\$7,500.00

Robynn Cox	Spelman College	\$7,500.00
Christine Durrance	University of North Carolina at Chapel Hill	\$7,500.00
Fuhua Zhai	Stony Brook University	\$7,500.00
		\$162,500.00

Table 6.4: Internal Research Support Program

Name	Institution	Amount
Year 1 (10/02-9/03)		
Jeffrey Talbert	Martin School	\$11,000.00
Aaron Yelowitz	Economics	\$11,000.00
Joanna Badagliacco	Sociology	\$11,500.00
Colleen Heflin	Public Policy	\$500.00
Jennifer Swanberg	Social Work	\$241.30
Year 2 (10/03-9/04)		
Chris Bollinger	Economics	\$13,000.00
Richard Fording	Political Science	\$13,000.00
Claudia Heath	Family Studies	\$13,000.00
Julie Zimmerman	Rural Sociology	\$200.00
Patricia Dyk	Rural Sociology	\$626.91
Joanna Badagliacco	Sociology	\$200.00
Year 3 (10/04-9/05)		
Colleen Heflin	Public Policy	\$13,000.00
Leigh Ann Simmons	Family Studies	\$13,000.00
James Marton	Public Policy	\$13,000.00
Sabrina Wadley	Public Policy	\$275.00
Year 4 (10/05-9/06)		
Lee Ann Simmons	Family Studies	\$900.00
Jennifer Swanberg	Social Work	\$2,500.00
Colleen Heflin	Public Policy	\$500.00
Year 5		
Richard Fording	Political Science	\$5,300.00
Chris Bollinger	Economics	\$961.61
Jennifer Swanberg	Social Work	\$7,500.00
Vanessa Hunn	Social Work	\$500.00
Year 6		
Chris Bollinger	Economics	\$500.00
Adetokunbo Olewole	Public Policy	\$5,000.00
Mark Peffley	Political Science	\$10,000.00
Chris Jepsen	Economics	\$746.00
Year 7		
Chris Jepsen	Economics	\$10,000.00

Pam Teaster	Public Health	\$10,000.00
Josh Cowen	Public Policy	\$907.00
Year 8		
Julia Costich	Public Health	\$8,964.00
Chris Bollinger	Economics	\$500.00
Patricia Dyk	Rural Sociology	\$9,509.00
Chris Jepsen	Economics	\$10,000.00
Pamela Teaster	Public Health	\$14,650.00
Kenneth Troske	Economics	\$4,836.00
Year 9		
Christia Brown	Psychology	\$10,247.00
Josh Cowen	Public Policy	\$8,628.00
Patricia Dyk	Rural Sociology	\$11,687.00
William Hoyt	Public Policy	\$9,430.00
Brea Perry	Sociology	\$11,414.00
		\$268,722.82

Table 6.5: UKCPR Seminar Speakers

Name	Institution
Year 1 (10/02-9/03)	
Harry Holzer	Georgetown University
Daniel Lichter	Ohio State University
Rebecca Blank	University of Michigan
Carolyn Heinrich	University of North Carolina-Chapel Hill
Maria Cancian	University of Wisconsin-Madison
Year 2 (10/03-9/04)	
Audra Bowlus	University of Western Ontario
Kathryn Edin	Northwestern University
Robert Moffitt	Johns Hopkins University
Sheldon Danziger	University of Michigan
Cynthia Duncan	University of New Hampshire
Peter Edelman	Georgetown University
Robert Margo	Vanderbilt University
Year 3 (10/04-9/05)	
Kathleen McGarry	UCLA
Susan Mayer	University of Chicago
David Autor	MIT
Kathleen Mullan Harris	University of North Carolina-Chapel Hill
Year 4 (10/05-9/06)	
Peter Arcidiacono	Duke University
Barbara Wolfe	University of Wisconsin
John Karl Scholz	University of Wisconsin

Cecila Rouse	Princeton University
Barbara Sianesi	Institute for Fiscal Studies
John Iceland	University of Maryland
Lance Lochner	University of Western Ontario
Barry Hirsch	Trinity University
Year 5 (10/06-9/07)	
Joseph Altonji	Yale University
Dean Joliffe	Economic Research Service
Erzo Luttmer	Harvard University
Tom DeLeire	University of Wisconsin
Year 6 (10/07-8/08)	
Ariel Kalil	University of Chicago
Elizabeth Powers	University of Illinois
Jens Ludwig	University of Chicago
Marianne Bitler	University of California-Irvine
Year 7 (9/08-8/09)	
Claudine Gay	Harvard University
Oscar Mitnik	Miami University
Richard Burkhauser	Cornell University
Kasey Buckles	Notre Dame University
Year 8 (9/09-8/10)	
Martha Bailey	University of Michigan
John Ham	University of Maryland
Kerwin Charles	University of Chicago
Bruce Western	Harvard University
Enrico Moretti	University of California Berkeley
Year 9 (9/10-5/11)	
Seth Sanders	Duke University
Brian Jacob	University of Michigan
Diane Whitmore Schanzenbach	Northwestern University
William Evans	University of Notre Dame
Mel Stephens	University of Michigan
Marianne Page	University of California Davis

Table 6.6: Emerging Scholars Program

Name	Institution
Year 1 (10/02-9/03)	
Not in operation	
Year 2 (10/03-9/04)	
Ngina Chiteji	Skidmore College
Todd Stinebrickner	University of Western Ontario
M. Kathleen Thomas	Mississippi State University

Mary Noonan	University of Iowa
James Sullivan	University of Notre Dame
Year 3 (10/04-9/05)	
Scott Allard	Brown University
Darren Lubotsky	University of Illinois-UC
Year 4 (10/05-9/06)	
Angela Fertig	University of Georgia
Jennifer Romich	University of Washington
Sarah Hamersma	University of Florida
Year 5 (10/06-9/07)	
Marcia Carlson	Columbia University
Year 6 (10/07-8/08)	
Ebonya Washington	Yale University
Alison Jacknowitz	American University
Year 7 (9/08-8/09)	
Oscar Mitnik	University of Miami
Kasey Buckles	Notre Dame
Year 8 (9/09-8/10)	
Kalena Cortes	Syracuse University
Chris Wildeman	Yale University
Year 9 (9/10-5/11)	
Jessica Hardie	Penn State University
Jason Lindo	University of Oregon

Across the various external and internal grant programs, UKCPR has awarded \$1.36 million for research projects, funding 113 researchers from a diverse set of academic disciplines such as economics, sociology, social work, political science, public policy, and public health. Grantees include a racially diverse group of scholars, including recipients in our granting program for faculty at Historically Black Colleges and Universities. Efforts to support minority scholarship also include targeted funding for minority faculty and graduate students at the University of Kentucky. In addition to programs funded by ASPE, UKCPR leveraged its experience conducting research on food insecurity and administering grant programs to successfully win a competitive \$5.5 million contract (\$5 million funded for 2010-2014) in Sept. 2010 from the Food and Nutrition Service in USDA to establish a Research Program on Childhood Hunger. Through the auspices of that mechanism, in June of 2011 the Center awarded \$2.45 million in grants across 13 projects nationwide.

*Table 6.7: Annual Revenues of UKCPR, 2004 – 2010
In current year dollars*

Year	Amount
2004	\$ 110,000
2005	1,906,108
2006	229,610
2007	352,375
2008	1,115,420
2009	0
2010	6,255,824
Total	\$9,969,337

UKCPR Grants Obtained, 2004-2010

Ahn, Thomas

American Enterprise Institute for Public Policy – Research Grant 2009. Co-PI with Jacob Vigdor (\$19,680)

Institute of Education Sciences – Education Research Grant 2009~2012. Co-PI with Jacob Vigdor (\$850,948)

Spencer Foundation Research Grant 2008~2009. Co-PI with Jacob Vigdor (\$40,000)

Tom Ahn is being funded through Duke University for \$118,984. His project dates are 3/01/10 – 02/28/11.

Ziliak, James P.

Principal Investigator, Food and Nutrition Service, U.S. Department of Agriculture, “Research Program on Childhood Hunger,” 2010–2015, **\$5.5 million** (Craig Gundersen Co-Principal Investigator) (\$5 million funded 2010-2014).

Principal Investigator, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Renewal of “University of Kentucky Center for Poverty Research,” 2010–2011, \$600,000

Co-Principal Investigator, The Merck Foundation, Grant to the University of Kentucky Center for Poverty Research for “Grandparents, Grandchildren, and Hunger in the U.S.: Assessing Food Insecurity in Multigenerational Households,” with Craig Gundersen, 2010-2012, \$155,824

Co-Principal Investigator, Meals On Wheels Association of America Foundation, Grant to the Center for Poverty Research for “Update on Senior Hunger in America,” with Craig Gundersen, 2008-2009, \$107,804

Principal Investigator, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Renewal of “University of Kentucky Center for Poverty Research,” 2008–2010, \$986,016

Principal Investigator, Cabinet for Health and Family Services, Commonwealth of Kentucky, “Child Care Subsidies and the Economic Well-Being of Recipient Families: A Survey and Implications for Kentucky,” 2008, \$21,600

Co-Principal Investigator, Meals on Wheels Association of America Foundation, Grant to the Center for Poverty Research for “The Causes, Consequences, and Future of Senior Hunger in America,” with Craig Gundersen, 2007-2008, \$202,375

Principal Investigator, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Supplemental Grant to the Center for Poverty Research for the “HBCU, 1890, and Tribal Colleges and Universities Medicare Part D Grant Program,” 2007, \$150,000

[Co-Principal Investigator, Federal Reserve Bank of Cleveland, Grant to the Center for Poverty Research for “Understanding Earnings Inequality in Appalachia: Skill Upgrading versus Rising Returns to Skill,” with Christopher Bollinger and Kenneth Troske, 2006-2007, \$79,610. Listed above with Bollinger.]

Principal Investigator, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Supplemental Grant to the Center for Poverty Research for the “HBCU, 1890, and Tribal Colleges and Universities Medicare Part D Grant Program,” 2006, \$150,000

Principal Investigator, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Renewal of “University of Kentucky Center for Poverty Research,” 2005–2008, \$1.75 million

Principal Investigator, Economic Research Service, U.S. Department of Agriculture, “Effective Tax Rates and Guarantees and Food Stamp Program Participation,” 2005–2007, \$156,108

Principal Investigator, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, “University of Kentucky Center for Poverty Research,” 2002–2005, \$1.17 million

Principal Investigator, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Supplemental Grant to the Center for Poverty Research for the “HBCU, 1890, and Tribal Colleges and Universities Small Grant Program,” 2004, \$100,000

Conference Grant, W.E. Upjohn Institute for Employment Research, “Mark C. Berger Memorial Research Conference,” to Center for Poverty Research, October 2004, \$10,000

UKCPR funding has to date resulted in a host of peer-reviewed journal articles (50), book chapters (6), books (4), discussion papers (30), a special issue journal issue, and a handbook chapter. Notable among these publications are three edited volumes by UKCPR Director James Ziliak based on UKCPR conferences: (1) a special issue of the *Journal of Labor Economics* (July 2006); (2) *Welfare Reform and its Long-Term Consequences for America's Poor*, published by Cambridge University Press (2009); and (3) *Appalachian Legacy: Economic Opportunity after the War on Poverty*, published by Brookings Institution Press (Forthcoming 2011).

The UKCPR Seminar Series has brought 45 speakers to the University of Kentucky's campus in nine years, including some of the pre-eminent poverty scholars in America. In addition to the actual seminar, a typical visit by these high quality scholars includes a full day of meetings with faculty and students. This has yielded tremendous benefits to the faculty and students at the University and has functioned as an important dissemination mechanism for UKCPR researchers and programs.

6.B.3 UKCPR Outreach

As director of UKCPR, James Ziliak has engaged in a number of outreach efforts over the past several years in to increase exposure of the UKCPR and University. These activities have included press releases, presentations at state and federal agencies, and participation in several conferences and working groups. A sample of his outreach includes the following:

- Testimony on senior hunger in America before the U.S. Senate Special Committee on Aging in March 2008 and before the U.S. Congressional Hunger Caucus in November 2009
- Advisor to the Kentucky Legislative Research Commission's 2009 Poverty Task Force, a bipartisan and bicameral task force addressing persistent poverty in Kentucky
- Policy briefs on the economics of the minimum wage, the earned income tax credit, and child support policy for Kentucky
- Panel discussant on several radio and television programs including "Race, Poverty, and Hurricane Katrina" for the program "On Point" hosted by Tom Ashbrook for WBUR Boston, and for "Voices in the Family" hosted by Dan Gottlieb on WHYI Philadelphia

7. *Resources of the Department*

In this section we provide some information about trends in departmental resources including the budget and personnel, specifically departmental size. As well we offer some comparisons with departments in our benchmark institutions.

7.A *Faculty Size, Composition, and Compensation*

7.A.1 *Faculty Size and Composition*

The current faculty, with rank is listed in *Table 7.1*. Also listed are the current staff though the number of current staff does not accurately reflect staff during the period of review as the Department typically had another staff support associate during this period. *Table 7.1* provides information on trends in the size of the Department faculty both by type of appointment and total faculty from 1981 to 2010. Primary faculty includes regular faculty, tenure track special-title series faculty, and lecturers. Total faculty includes courtesy joint appointments and a visitor. The visitor is not counted for publications, and his publications are not included in the analysis above. As the table indicates, the faculty has changed significantly in the past 29 years. Of particular concern for the research and graduate education missions is the loss of primary, regular faculty positions. From 1981-1982 to 2003-2004 the number of primary regular faculty was cut in half from 28 to 14. The number was increased to 17 during this review period, 2004-2010. Also added during this current review period were two lecturers (non-tenure) with primary teaching responsibility and three secondary joint appointments. Since 1981 the share of research faculty with primary appointments has declined from nearly 100% to 63%.

During the 2004-2010 review period, 12 faculty members joined the Department: Tom Ahn (new hire), Adib Bagh (new hire), J.S. Butler (joint from Martin School), Alison Davis (joint from Agricultural Economics), Darrin Gulla (new hire), Christopher Jepsen (new hire), Jeremy Sandford (new hire), Paul Shea (new hire), Jill Stowe (joint from Agricultural Economics), Kenneth Troske (new hire), Daniela Puzzello (new hire), and Jihai Yu (new hire). During the review period, six members left the Department: M.M. Ali (became emeritus), Marco Castaneda (resigned for a position at Tulane), Richard Gift (became emeritus), Joe Peek (resigned joint appointment to be solely in School of Management), Daniela Puzzello (resigned for a position at University of Illinois), and Robert Reed (resigned for a position at University of Alabama after being denied tenure). William Hoyt did not leave the Department, but became a joint appointee and Director of the Martin School of Public Policy and Administration. Nonetheless, the department lost a tenured faculty position.

Table 7.1: 2010-2011 Faculty and Staff

Full Time, Regular Title Series (17)	
Tom Ahn	Assistant Professor
Adib Bagh	Assistant Professor
Glenn Blomquist	Pollard Endowed Professor of Economics (secondary joint appointment in the Martin School of Public Policy and Administration)
Christopher Bollinger	Gatton Endowed Professor of Economics, Director of Graduate Studies
Josh Ederington	Associate Professor
James Fackler	Professor
John Garen	Gatton Endowed Professor of Economics
Yoonbai Kim	Associate Professor
Jenny Minier	Associate Professor
Jeremy Sandford	Assistant Professor
Frank Scott	Gatton Endowed Professor in Economics
Paul Shea	Assistant Professor
Mark Toma	Associate Professor
Kenneth Troske	Sturgill Endowed Professor of Economics, Department Chair, Director of Center for Business and Economics Research
Aaron Yelowitz	Associate Professor (secondary joint appointment in the Martin School of Public Policy and Administration)
Jihai Yu	Assistant Professor
James Ziliak	Gatton Endowed Chair in Microeconomics, Director of the UK Center for Poverty Research
Full-Time, Special Title Series (3)	
J. Robert Gillette	Associate Professor, Special Title Series – Teaching
Gail Hoyt	Professor, Special Title Series – Teaching, Director of Undergraduate Studies
Christopher Jepsen	Assistant Professor, Special Title Series – Research, and Associate Director of the Center for Business and Economic Research
Lecturers and Visitor (2+1)	
Ann Eike	Lecturer – Teaching
Darrin Gulla	Lecturer – Teaching
Kevin Denny	Visiting Professor from University College Dublin, Ireland during 2010
Joint Appointments (5)	
	(All appointments are primary in the departments listed and secondary in the Department of Economics.)
J.S. Butler	Professor in the Martin School of Public Policy and Administration
Alison F. Davis	Associate Extension Professor in the Department of Agricultural Economics
William H. Hoyt	Professor and Director of the Martin School of Public Policy and Administration
C. Jill Stowe	Assistant Professor in the Department of Agricultural Economics
David Wildasin	Endowed Chair in Public Finance in the Martin School of Public Policy and Administration

Staff	
Michael Childress	Assistant Dean (CBER)
Jeannie Graves	Staff Support Associate I
Anna Stewart	Economic Analyst (CBER)
Debbie Wheeler	Staff Support Associate II

Table 7.2: Trends in Faculty Size and Composition

Year	1981-82	1996-97	1999-2000	2003-04	2010-11
Regular Title Series	28	21	15	14	17
Special Title Research	0	1	1	1	1
Special Title Teaching	0	2	2	2	2
Lecturers, Non-Tenure	0	0	0	2	2
Secondary Joint Appt.	1	3	2	2	5
Total	29	27	20	21	27
Primary	28	24	18	19	22

The small number of women currently on the faculty is a source for concern. Currently two women, Gail Hoyt and Jenny Minier, have a primary, tenured appointment. Ann Eike is a Lecturer. In part, the small number of women in the department is attributable to the losses in 2003 of two assistant professors who were women. The department has actively recruited women. During previous review period a total of 14 offers were made by the Department of Economics for “Junior Recruiting”. Of the 14 offers made, 43% were tendered to women, 7% were tendered to African Americans, 7% were tendered to Hispanics. During the current review period the department has continued to recruit women and minorities.

7.A.2 Faculty Compensation

As *Table 7.3* indicates, UK Department of Economics is far behind other departments in Ph.D.-granting institutions in the U.S. in its salary compensation. Comparisons are made using nine-month base salary for the academic year 2010-2011. The UK data were provided by the Dean of the Gatton College of Business and Economics from data for the AACSB report. The information for other PhD-granting departments comes from the American Economic Association annual survey of US economics departments.¹⁴

¹⁴ See Scott, Charles E., and John J. Siegfried. "American Economic Association Universal Academic Questionnaire Summary Statistics." *American Economic Review*, 101(May 2011): 664–67.

Table 7.3: Economics Salaries at UK and Ph.D. Granting Institutions, 2010-2011

	PhD-Granting University Average	University of Kentucky Average	Amount UK is Below Average (dollars)	Percentage UK is Below Average
Full Professor	\$159,816	\$128,400	\$31,416	24.5
Associate Professor	\$117,231	\$89,200	\$28,031	31.4
Assistant Professor	\$100,451	\$95,800	\$4,651	4.9

The Department is necessarily competitive at the Assistant Professor level, paying 95% of average market salary. If it were not, quality hires could not be made. However, the gulf in salary between the average in the Department and the market average is quite substantial for Associate Professors (paying 76%) and Full Professors (paying 80%). For Associate Professors this gap is \$28,031, while for Full Professors the gap is \$31,416.

7.B Budgets for the Department of Economics

Table 7.4 lists the operating budget for the Department during the period of review as well as the ten academic years immediately preceding it. This budget does not include any compensation or any costs of computer supplies as they come directly from College funds. The table lists the discretionary spending and the transfer from CBER for years in which the data are available. To give a better perspective on how departmental resources have changed over this period, expenses are listed in both nominal terms and inflation-adjusted dollars (2010 dollars). During the 15 years from 1994 until 2009 the department operating budget remained about the same (in 2010 dollars). In 2009 the operating budget finally increased by nearly \$20,000, almost 40%. The increase has been used to support a number of activities including travel to conferences by faculty and graduate students.

Table 7.4: Annual Budgets of the Department of Economics

Category	Operating Expenses (current\$)	Operating Expenses (2010\$)	CBER Transfer (current\$)	CBER Transfer (2010\$)	Department Discretionary (current\$)	Department Discretionary (2010\$)	Total Expenses (2010\$)
Year							
2010-2011	70,357	70,357	?	?	6,400	6,400	76,757
2009-2010	70,357	71,511	?	?	6,400	6,505	78,016
2008-2009	47,938	48,551	?	?	5,000	5,064	53,615
2007-2008	47,938	50,415	?	?	7,700	8,098	58,513
2006-2007	47,938	51,851	?	?	4,700	5,084	56,935
2005-2006	47,938	53,524	3,000?	?	10,200	11,388	64,912?
2004-2005	43,938	50,720	20,000	23,087	0?	0?	73,807?
2003-2004	47,938	56,811	13,000	15,406	6,326	7,497	79,714
2002-2003	47,938	58,105	13,000	15,757	3,280	3,976	77,838
2001-2002	47,611	58,621	0	0	2,620	3,226	61,847
2000-2001	44,538	56,398	22,000	27,858	4,798	6,076	90,332
1999-2000	44,538	58,294	22,000	28,795	3,899	5,103	92,192
1998-1999	41,314	55,269	8,000	10,702	0	0	65,971
1997-1998	41,319	56,136	0	0	2,413	3,278	59,414
1996-1997	41,314	57,417	0	0	0	0	57,417
1995-1996	41,314	59,113	0	0	0	0	59,113
1994-1995	34,021	50,057	0	0	0	0	50,057

Funding amounts are converted from current to 2010 dollars using the CPI Inflation calculator, see http://www.bls.gov/data/inflation_calculator.htm

8. *Concluding Comments and Suggestions for the Future*

Throughout this study, we have provided information and data that should assist others in reviewing and evaluating the Department of Economics. We have also offered our own evaluation and recommendations for possible revisions in Departmental policies, curricula, and resource allocations. Here we provide a brief summary of our recommendations of actions and policy modifications we believe might be beneficial for the future of the Department.

While improvement is always possible and to be strived for, we believe that the Department of Economics has been relatively successful in accomplishing its broad missions of nationally and internationally recognized research, formal training in economics to undergraduate and graduate students, and services to the Gatton College of Business and Economics, the University of Kentucky, the economics profession, and to local, state, and national governments.

8.A. *A Review of Findings*

8.A.1 *Undergraduate Education*

Overall, the self-study of the undergraduate aspects of the department finds a program that is thriving and meeting the needs of our undergraduates. The department maintains a healthy number of majors in varied types of economics programs. Enrollment measures for courses, teaching evaluations, specific course assessments, and alumni survey results all characterize a program where learning and skill development occur and alumni express overall satisfaction with their educational experience. Despite resource constraints, new courses continue to be developed, and a new major in international economics and business is being developed. Course prerequisite requirements have been imposed that should be beneficial to majors. Efforts continue to improve peripheral student support activity. Specially, student advising processes have seen vast improvement over the period of the self-study. The self-study process has led to the following recommendations for the continued enhancement of the undergraduate program.

- Evaluate the content of the intermediate theory courses, ECO 401 and ECO 402, to consider consistency across sections and instructors and continuity in the transition from ECO 401 to ECO 402.
- Continue to develop and offer additional 300 level topics courses designed for both majors and non-majors.
- Consider development of a cadre of courses to offer online and/or in a hybrid format.
- Continue to develop and fine tune course and program assessment processes.
- Continue to find ways to improve and expand LEAP tutoring service.
- Continue to improve communication and coordination with professional advising staff in the Colleges of Arts and Sciences and Business and Economics.

- Find additional ways to increase one-on-one interaction between faculty members and economics majors.
- Develop additional methods to identify, advise, and develop the research skills of majors considering graduate school in economics.
- Find ways to offer more internship and experiential learning opportunities consistently to a larger number of our majors. A professional staff person within the department devoted specifically to this task would make this feasible.
- Continue to support and expand the role of the undergraduate Economics Society in providing opportunities for our majors to hear from noted economists, learn more about what economists do, and network with other students, alumni, faculty, and potential employers.

8.A.2 *Graduate Education*

The graduate program has continued to be a strong program given available resources. Applications to the program have risen by over 60 percent. The average GRE scores of applicants and attending students has risen slightly over the study period. The core courses in our Ph.D. program are in high demand from Ph.D. programs outside the department. More than 50 percent of enrollment in these courses is from students in Agricultural Economics, Finance, Accounting, and Public Policy. Recently the College of Pharmacy Policy program has begun sending students to take our core courses. Our courses are in high demand from economics students and students in other graduate programs in the Gatton College of Business and Economics and elsewhere on campus.

The Ph.D. graduates produced by our department are in demand in higher education as well as consulting and government positions. Our students typically place well. Every graduate of our program during the study period has a job at the time of their graduation with one exception. Over 50 percent of our students during the study period placed in universities with at least master's programs. These are typically regional universities that are often highly regarded in their regions. The second largest category of placements is small colleges.

Alumni rate our program quite well. An overwhelming majority enthusiastically recommend our program to individuals interested in pursuing a Ph.D. in economics. They typically rate aspects of our learning objectives and program goals as "good" or even excellent. Our primary weakness appears to be in developing theory and other tools for producing research.

Our faculty and alumni are extremely concerned about low stipends and high work requirements placed on teaching assistants. This limits our ability to recruit top students and limits students' ability to complete their programs in a timely manner. Our program could expand if resources were made available. Our program may be able to recruit higher quality students if stipends and work requirements were comparable to benchmarks and to our competitors.

The graduate program generally has forty to forty-five students, however we only have 20 teaching assistant lines. While research assistantships and a few fellowships help make up the difference, this limitation significantly hampers our recruiting and limits the size of our program. In recent years, the schools we are competing with for placements have supported their students for five or more years compared to our typical four years. Hence, our students, who are pressured due to support constraints, are on the market earlier with less polished work and shorter CV's. Our students are also hampered because in order to meet the demand for our undergraduate courses (specifically ECO 201, ECO 202 and ECO 391) we have third year and fourth year teaching assistants teaching a 2-2 course load. This heavy course load slows their progress.

Our stipends are low compared to other schools. For example, last year we were working on recruiting a student from University of Toledo. He had excellent grades and GRE scores, had a paper that had won an undergraduate research award through the Midwest Economics Association, and was generally a strong candidate. He chose Ohio State University because their stipend was \$7000 a year higher than our **best** graduate fellowship (the multi-year fellowship). Our teaching assistantship lines are woefully underfunded. Typical assistantships at places we compete with are in the range of \$16000 to \$18000, in addition to tuition and benefits. While we can make some of that up with fellowships, other places have these types of add on fellowships as well. We lose many good students to places ranked below us.

8.A.3 Overall

The Department of Economics has two main strengths.

- Faculty. The first is high quality faculty who are actively publishing and participating in national and international conferences and policy arenas. As seen in the section outlining research, 85% of faculty are publishing. The number of papers in top journals has risen during the study period with only slight decline in overall number of papers. The faculty are highly engaged in professional conference activity as shown by an average of 39 conference presentations per year. Many presentations are in national and international settings. The faculty have brought in over \$12 million dollars in external funding during the review period.
- Programs. The second strength is strong interest in our academic programs at both the undergraduate and graduate levels. The number of undergraduate majors is encouraging. Introductory principles courses serve more than 3500 students each year and are limited by capacity constraints rather than student interest. While our total number of majors declined when the Foreign Language International Economics (FLIE) program was terminated, our remaining programs continue to grow and overall we are one of the larger majors on campus with over 400 economics majors and approximately 75 minors. Economics graduate courses draw students from four other disciplines and over half the students in our first year core classes are from these other departments. During the study period, applications to the program have nearly doubled. The Ph.D. program continues to receive applications from outstanding students both nationally and internationally.

The department is positioned with strong faculty and a set of academic programs which are in high demand. The main weakness is a significant lack of resources in two important areas.

- Faculty. The first is faculty. While there are excellent scholars in the department, there are too few faculty for the number students served; it limits the ability to serve them well. It is limiting in that economics majors are less likely to be in contact with top scholars. It is limiting in that the graduate program is relatively small, and in order to meet undergraduate teaching demands, graduate teaching assistants are bearing too high a teaching load. In order to grow and succeed as a department, the number of regular tenure-track faculty must be increased. In addition, a modest expansion of lecture faculty (non-tenure track, non-research) should be considered. With larger faculty, higher quality undergraduate programs could be offered, including expansion of upper division offerings. Further, offerings in principles classes could be expanded. Perhaps most importantly, the graduate program would be stronger, with faculty able to work more closely with fewer students per faculty member.
- Assistantships and Stipends. The second weakness is a lack of assistantship lines for the graduate program and the significantly substandard stipends. Underfunding graduate student financing limits both the number and the quality of students the Department is able to recruit. Further, because third and fourth year students must teach multiple sections, it slows progress toward their degree. With additional teaching assistantships, funded at a higher level, the graduate program could recruit higher quality students and produce significantly higher quality graduates. As noted above, stipends are not competitive with benchmarks. Because there are few stipends compared to program size and because demands for staffing undergraduate lower-level courses, third year students often stall in their research development. With additional assistantships, teaching loads could be reduced and students would make more progress toward their degrees.

Resources to strengthen weaknesses should be devoted to faculty and assistantships.

- To be more comparable to benchmark departments would take five additional tenure track lines plus two additional lectureship lines. These additions would still be in accordance with Department Operating Rules and Procedures that limit the number of lecturers to no more than 20% of the tenured/tenure-track faculty or four, whichever is smaller. The Department has already taken the step of using Research Challenge Trust Fund money previously tied to an endowed chair position in economics that has not been filled and plans to hire two tenure/tenure-track professors. The cost of adding three additional tenure-track assistant professors would be approximately \$400,000 including base salary and fringe benefits. The cost of adding two lecturers would be approximately \$182,000.
- To be more competitive with benchmark departments would take approximately 15 additional teaching assistantships with an increase in stipend levels to approximately \$18,000 per year. The additional assistantships would allow the size of the entering class to increase slightly and allow successful students funding through a fifth year, the norm in the discipline, instead of only through the fourth year. The increase in the stipend from

\$11,923 would bring the Department closer to the \$23,000 Tier I and II schools offer and much more competitive with the other Ph.D. granting universities. The cost of additional assistantships and enhanced stipends would be approximately \$630,000 including tuition and fringe benefits.

These changes would improve the department noticeably. The Department has already decided to devote some of its resources to addressing these weaknesses. It should continue to work with the Gatton College of Business and Economics, the Graduate School, and the Provost to find resources to do more. The cost may be perceived as substantial, but the return is high in the form of a stronger Department of Economics, better undergraduate and graduate student experiences, enhanced research, and contributions to the Gatton College, University of Kentucky, Commonwealth of Kentucky, and others in the global community.