

**ACADEMIC PROGRAM REVIEW  
SELF-STUDY**

**DEPARTMENT OF ECONOMICS  
COLLEGE OF LIBERAL ARTS  
TEXAS A&M UNIVERSITY**

October 2009



# **SELF STUDY**

GRADUATE PROGRAMS

UNDERGRADUATE PROGRAMS

**DEPARTMENT OF ECONOMICS**

**COLLEGE OF LIBERAL ARTS**

**TEXAS A&M UNIVERSITY**

OCTOBER 2009

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## **Introduction I**

- External Reviewers and Their Charge
- Itinerary
- Staff Organizational Chart
- Preparation of Self-Study

Department of Economics  
Academic Program Review Team  
October 25-28, 2009



MEMBER TYPE	LAST NAME	FIRST NAME	MEMBER ADDRESS	EMAIL ADDRESS	TELEPHONE
Chair	Startz	Richard	Department of Economics University of Washington Box 353330 Seattle, WA 98195-3330	startz@u.washington.edu	206.543.5955
Member	Biglaiser	Gary	University of North Carolina Department of Economics Chapel Hill, NC 27599-3305	gbiglais@email.unc.edu	919.966.4884
Member	Brownstone	David	Department of Economics University of California, Irvine 3151 Social Science Plaza Irvine, CA 92697-5100	dbrownst@uci.edu	949.824.5788
Member	Shannon	Chris	Department of Economics 549 Evans Hall University of California, Berkeley Berkeley, CA 94720	cshannon@econ.berkeley.edu	510.643.7283

July 29, 2009

**Charge to the Peer Review Team  
Economics Academic Program Review**

This letter provides you with background on the Department of Economics at Texas A&M University, and explains the expectations for our upcoming external review. Economics has been recognized as a separate department at Texas A&M since 1931. The Department received approval to offer a Doctor of Philosophy (Ph.D.) degree in 1965, a Master of Science (MS) degree in 1931, a Bachelor of Science (BS) degree in 1974, and a Bachelor of Arts (BA) degree prior to 1945. Each semester, the Department awards approximately 160 BA and BS degrees, 12 MS degrees, and 12 Ph.D. degrees.

This activity is part of a periodic review of all Texas A&M University academic programs, and offers an opportunity to assess the standards of the programs and to learn from review team members' experiences with similar programs.

I request that the review team examine the undergraduate, graduate, and research programs of the Department of Economics using the materials that will be provided, information you gain through personal interactions while visiting Texas A&M, and any additional information that you might request. While evaluating the program, please consider the allocation of resources within the Department (both human and fiscal) and the absolute level of support the Department receives from the University. Please comment as appropriate on current and potential leveraging of these resources, as well as the current and potential interaction with other departments and groups, both on campus and off.

Also, please address the issue of learning-based outcomes:

- Does the Department have ongoing and integrated planning and evaluation processes that assess its programs and services, that result in continuing improvement, and that demonstrate that the Department is effectively accomplishing its mission?
- Has the Department identified expected outcomes for its educational programs?
- Does the Department have evidence of improvement based upon analysis of results?

In addition, I ask that you address the impact of the Faculty Reinvestment Program, started by Texas A&M University in 2003. The reinvestment program has resulted in the hiring of approximately 450 new faculty members dispersed throughout the University. The goal is to improve the quality of education for Texas A&M students by having more faculty available for mentoring and advising, whether more courses and sections are available, or by simply being more responsive to student needs. Through this review we plan to track and measure real increases and improvements in the quality of the graduate and undergraduate experiences across all dimensions. The Department was allocated \$410,000 in reinvestment funding from the College of Liberal Arts (in addition to funds for replacement hiring). These funds were used to hire Associate Professor Li Gan (combined department and Reinvestment funds) and three Assistant Professors: Hwagen Kim, Stephanie Houghton, and Alex Brown. All four faculty have remained with the Department. Another \$50,000 of the original amount is being held in the dean's office to help fund the salary of a new Department Head. The Department is currently conducting a nationwide search. We ask that you assess the success of the Department in moving their teaching and research agendas forward with these hires based on information provided to you in the forthcoming self-study.

I look forward to meeting with you and the entire committee in October. If you have any questions or require additional information, please contact me.

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**DIVISION OF RESEARCH  
AND GRADUATE STUDIES**

Office of Graduate Studies

Robert C. Webb, Ph.D.  
Interim Dean



July 29, 2009

Dr. Richard Startz  
Department of Economics  
University of Washington  
Box 353330  
Seattle, WA 98195-3330

Dear Dr. Startz:

Thank you for agreeing to serve as chair on the peer review team that will evaluate the Department of Economics at Texas A&M University. Each department at Texas A&M University undergoes a comprehensive review of their programs approximately every eight years. I write to confirm the time frame and some of the arrangements for the review. I have elaborated, in a general sense, our expectations for the review in the enclosed charge letter.

As previously mentioned, we plan to begin the review process on Sunday evening, October 25, 2009 and to conclude it on Wednesday afternoon, October 28, 2009. As a reviewer in this process, you will receive a \$1,500 professional service fee. In addition, Texas A&M University will cover the costs of your airfare, lodging, and meals related to the review. No federal funds will be expended on the review or your fee.

To facilitate your access to various campus facilities, we have reserved a room for you at a local inn for the nights of October 25-27, with departure on October 28. The department will arrange your airfare, and will book an economical non-refundable coach fare. They will contact you well in advance of the review to arrange your airfare.

Our Interim Department Head, Dr. Larry Oliver, will plan the logistics of the review and assemble review materials for you to have prior to your visit. Dr. Oliver will communicate directly with you as appropriate, concerning various details of the review. The enclosed charge letter is also available online along with the most up-to-date version of your team roster, our internal Guidelines for Academic Program Review, and some emergency contact information for your trip in October. Please visit [http://ogs.tamu.edu/faculty/Acad-Program-Reviewer-Info/ECON\\_Review\\_2009](http://ogs.tamu.edu/faculty/Acad-Program-Reviewer-Info/ECON_Review_2009) for more details.

I am grateful to you and the other members of the review committee for your willingness to help with this important review. Please do not hesitate to contact me at (979) 845-3631, Dr. Larry Oliver at (979) 845-1377,

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or our Academic Program Review Coordinator, Ms. Jenna Kurten at (979) 847-9067, if you have any questions or need further information. I look forward to the opportunity to meet you in the near future.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert C. Webb', written in a cursive style.

Robert C. Webb

Enclosures

pc: Dr. Charles Johnson  
Dr. Patricia Hurley  
Dr. Larry Oliver  
Ms. Rachelle Dudley  
Ms. Jenna Kurten

**DEPARTMENT OF ECONOMICS  
TEXAS A&M UNIVERSITY  
ACADEMIC PROGRAM REVIEW  
EXTERNAL REVIEWERS' ITINERARY  
OCTOBER 25-28, 2009**

**Hotel Reservations:**

Reveille Inn  
4400 Old College Road  
Bryan, TX 77801  
979.846.0858

**Departmental Contact:**

Larry Oliver, Interim Head  
Office: 979.845.7358  
Cell: 979.574.5680

**SUNDAY, OCTOBER 25, 2009**

**Review Team Arrivals**

- |         |   |
|---------|---|
| 3:30 pm | David Brownstone arrives in College Station on American Airlines, Flight # 3417. Amy Glass will meet at the airport and escort to Reveille Inn.                                       |
| 4:14 pm | Richard Startz arrives in College Station on Continental Airlines, Flight # 9582. Larry Oliver will meet at the airport and escort to Reveille Inn.                                   |
| 6:57 pm | Gary Biglaiser arrives in College Station on Continental Airlines, Flight # 9504. Rajiv Sarin will meet at the airport and escort to Café Eccell for dinner and then to Reveille Inn. |
| 6:57 pm | Chris Shannon arrives in College Station on Continental Airlines, Flight #9504. Rajiv Sarin will meet at the airport and escort to Café Eccell for dinner and then to Reveille Inn.   |
| 7:15 pm | Larry Oliver will pick up David Brownstone and Richard Startz at Reveille Inn and escort to Café Eccell for dinner.   |

7:30 pm Dinner reservations at Café Eccell (846-7908).  
Review Team and Larry Oliver, Interim Head; Rajiv Sarin, Director of Graduate Programs; and Timothy Gronberg, Director of Undergraduate Programs. (orientation/background of department provided at this time)

**MONDAY, OCTOBER 26, 2009**

**(All meetings in Allen Building unless otherwise noted.)**

7:30-8:30 am Breakfast Entry Meeting at Reveille Inn with Karan Watson, Interim Provost and Executive Vice President for Academics; Martyn Gunn, Vice Provost; Kristin Harper, Assistant Dean of Undergraduate Programs; Robert Webb, Interim Dean of Graduate Studies, and David Wentling, Assistant Dean of Graduate Studies. Provost provides charge and institutional perspective to reviewers.

8:30 am Tricia Kelm will pick up Review Team at Reveille Inn and escort to Coke Building, Room 301.

9:00-10:00 am Meet with Deans in the College of Liberal Arts – Charles A. Johnson, Professor of Political Science and Dean; Ben M. Crouch, Professor of Sociology and Executive Associate Dean; Patricia A. Hurley, Professor of Political Science and Associate Dean; and Michael Stephenson, Associate Professor of Communication and Acting Associate Dean.

10:00 am Tricia Kelm and Teri Tenalio meets Review Team at Coke Building and escort to Allen Building, Room 3122.

10:15-11:00 am Meet with Larry Oliver, Interim Head, Room 3122.

11:00-11:30 am Meet with Economics Society officers (Liz Howard, Tony Kroschewsky, Pavel Kolomiets, Katie Schwankl , Wilson Alarcon, Grant Guilbert and Matt Fedel), Room 3122.

11:30 am -1:00 pm Lunch with Graduate Student Association officers (Courtney Collins, Cesar Cancho, Steele French, Graham Mueller, and Jeremy Nighohossian), Room 3122. Catered by Lenny’s Sub Shop.

1:00-1:45 pm Tour departmental facilities, including Economics Research Laboratory (Co-Directors John Van Huyck and Brit Grosskopf; Will Newnum, Senior Microcomputer Administrator).

1:45-2:45 pm Meet with Graduate Instruction Committee (Chair, Rajiv Sarin; Amy Glass; Hae-shin Hwang; Guoqiang Tian; and Courtney Collins, Student Representative), Room 3122.

- 3:00-4:00 pm Meet with Undergraduate Instruction Committee (Chair, Timothy Gronberg; John Allen; Richard Anderson; Jeff Edwardson; Hagen Kim; and Pavel Kolomiets, Student Representative), Room 3122.
- 4:15-5:00 pm Meet with Assistant Professors, Room 3125.  
(Assistant Professors will escort Review Team to Reception)
- 5:30-6:30 pm Faculty Reception for Review Team at University Club.
- 6:30 pm Hae-shin Hwang will escort Review Team to Reveille Inn.
- 7:30 pm Review Team will have dinner and work session at Reveille Inn.  
Dinner will be catered.

**TUESDAY, OCTOBER 27, 2009**

- 7:30-8:15 am Breakfast at Reveille Inn.
- 8:15 am John Moroney will pick up Review Team at Reveille Inn and escort to the department.
- 8:30-9:30 am Meet with Applied Micro faculty, Room 3125.
- 9:30-10:30 am Meet with Econometrics faculty, Room 3125.
- 10:30-10:45 am BREAK
- 10:45-11:30 am Meet with Macro faculty, Room 3125.
- 11:30 am-1:15 pm Lunch with elected members of Executive Committee (Dennis Jansen, Steve Puller, John Van Huyck and Alex Brown).
- 1:15-2:15 pm Meet with Theory/Experimental faculty, Room 3125.
- 2:15-3:00 pm Meet with Associate Professors, Room 3125.
- 3:00-3:15 pm BREAK
- 3:15-4:00 pm Meet with Full Professors, Room 3067.
- 4:00-4:30 pm OPEN
- 4:30 pm Brit Grosskopf will escort Review Team to Reveille Inn.  
Review Team will hold private work session to prepare for Wednesday morning meetings and debriefings.
- 6:00 pm Review Team will have dinner and work session at Reveille Inn.  
Dinner will be catered.

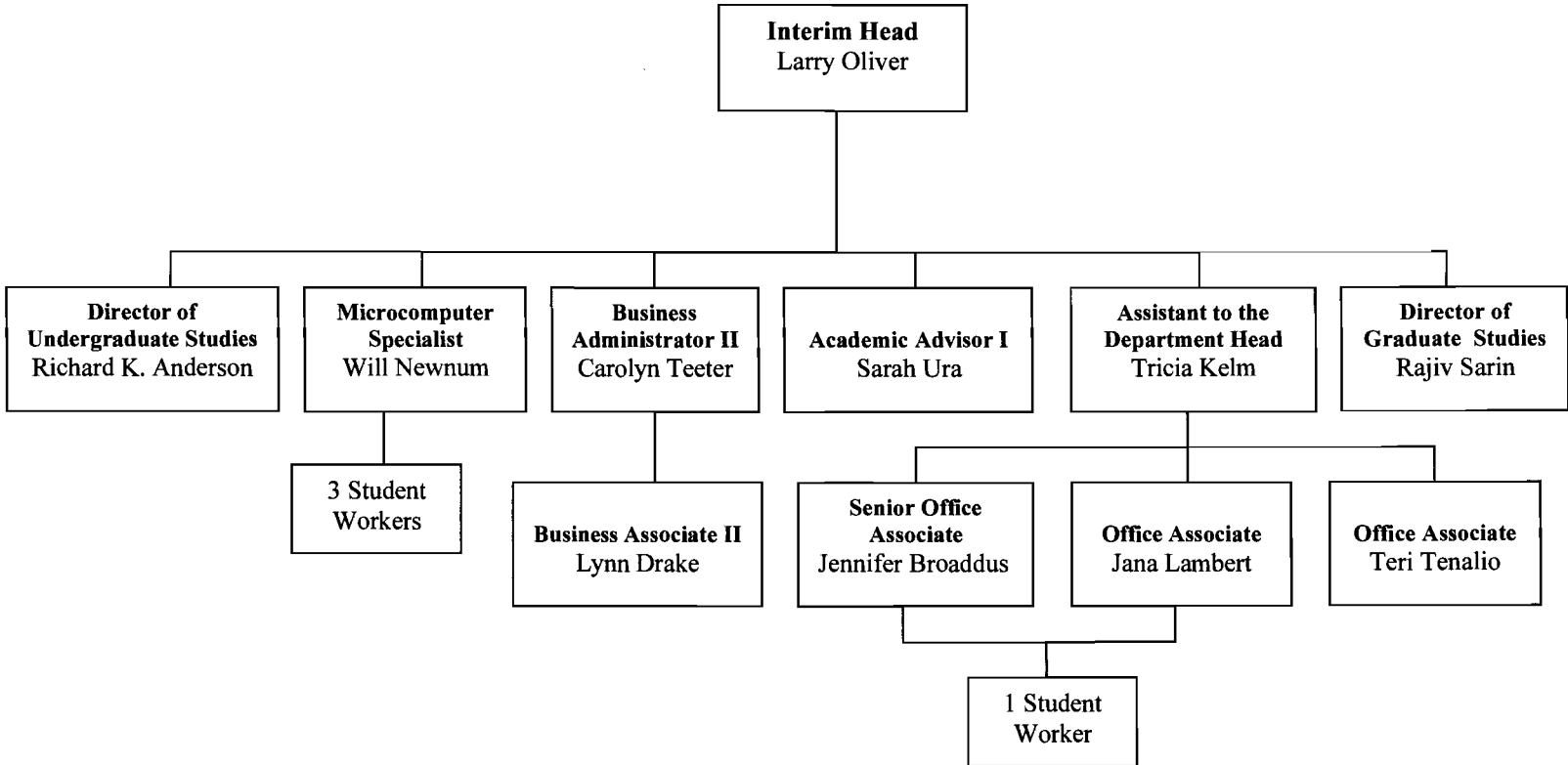
## **WEDNESDAY, OCTOBER 28, 2009**

- 7:30-9:00 am Exit meeting at Reveille Inn with Karan Watson, Interim Provost and Executive Vice President for Academics; Martyn Gunn, Vice Provost; Kristin Harper, Assistant Dean of Undergraduate Programs; David Wentling, Assistant Dean of Graduate Studies; Charles A. Johnson, Dean, College of Liberal Arts; Ben M. Crouch, Professor of Sociology and Executive Associate Dean; Patricia A. Hurley, Professor of Political Science and Associate Dean; Michael Stephenson, Associate Professor of Communication and Acting Associate Dean. Reviewers present summary of their on-site review. Breakfast served.
- 9:00-10:00 am Check out of Reveille Inn. Larry Oliver and Tricia Kelm escort Review Team to Allen Building, Room 3122. Review Team debriefs Interim Head.
- 10:00-10:30 am Review Team prepares for their meeting with Economics Department, Room 3122.
- 10:30 am -12:00 pm Review Team presents final report to the Economics Department faculty, staff and students, Room 3033 (PERC seminar room).
- 12:00-1:30 pm Larry Oliver and Tricia Kelm will escort Review Team to lunch. After lunch, Tricia will meet back at the restaurant to help escort Review Team to the airport and/or department.
- 1:30 pm Steve Wiggins will visit with Richard Startz and then take him to the airport.

### **Review Team Departures**

- 12:30 pm Chris Shannon departs College Station on Continental Airlines, Flight # 9544. Teri Tenalio will take Chris Shannon to the airport at 11:30 am.
- 2:08 pm Gary Biglaiser departs College Station on Continental Airlines, Flight # 9537. Tricia Kelm will take Gary Biglaiser to the airport after lunch.
- 3:55 pm David Brownstone departs College Station on American Airlines, Flight # 3416. Tricia Kelm will take David Brownstone to the airport at 3:00 pm.
- 4:35 pm Richard Startz departs College Station on Continental Airlines, Flight # 9564. Steve Wiggins will take Richard Startz to the airport at 3:30 pm.

# Department of Economics Staff Organizational Chart



## **I. Introduction**

### **Preparation of Self-Study**

Preparations for this Academic Program Review and self-study began at a retreat of the department's Executive Committee held on August 18, 2008. Members of the EC, and later all faculty, were encouraged to read the *Guidelines for Program Review* published by the Office of Graduate Studies (OGS) and to review recent self-study reports by other Liberal Arts departments. Faculty were also sent a copy of the self-study report from the 1999 review (which did not include the undergraduate area). During the next six months, the EC, Graduate Instruction Committee (GIC), and Undergraduate Instruction Committee (UIC) collected and discussed data; minutes of the meetings and some of the data were distributed to all faculty, as well as to the officers of the department's Graduate Student Associate (GSA). Drafting of the report began during spring semester, and draft sections were sent to the faculty and the GSA for comments and suggestions. The full faculty met on April 17 and May 7 to discuss substantive issues and reach consensus on a vision for the department. After being fine-tuned, the entire draft of the self-study was made available to faculty and the GSA for comments. Thus, while most of the data-gathering and drafting of the report were done by department committees, all faculty and graduate students had the opportunity to contribute to the preparation of this report.

## II. History, Vision, and Goals of the Department

When it was established in 1876 as the state's land-grant institution, Texas A&M University had seven departments, one of which (The Department of Mental and Moral Philosophy) offered courses in economics. The School of Arts and Sciences was created in 1924, and in 1931 the MS in economics was authorized as the first liberal arts graduate program. In 1965, the School of Arts and Sciences split into the colleges of Science and of Liberal Arts, of which economics is still a part, and in 1965 the PhD in economics was approved.

The Department of Economics, which is now one of twelve departments in the College of Liberal Arts, developed rapidly during the 1960s and 1970s, in conjunction with rapid growth and change by Texas A&M University as a whole. The academic reputation of the department rose in the 1970s, peaking around 1980 at about twenty-fifth in the nation. At the time of the department's last external program review (1999), it was ranked 34<sup>th</sup> by both the National Research Council (NRC) and *US News and World Report*. The most recent *US News and World Report* (2008) places the department number 42 overall and 21 among public universities, a slight gain since 2006 (44 and 22), but still below the 2003 ranking (37 and 18).

As of Fall 2009, the department is composed of 29 tenured/ tenure-track faculty, a decrease of five faculty since the last review (Table 1).

**Table 1: Tenured and Tenured Track Faculty Ethnicity and Gender 1999 – 2009**

Rank	Fall 1999							
	Gender		Ethnicity					
	Male	Female	White	Black	Hispanic	Asian/ Pacific Islander	Native American	Other/ International
Full	20	0	16	0	1	2	1	
Associate	5	1	5	0	1	0	0	
Assistant	7	2	7	0	0	2	0	
<b>Total</b>	<b>32</b>	<b>3</b>	<b>28</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>1</b>	
Rank	Fall 2009							
	Gender		Ethnicity					
	Male	Female	White	Black	Hispanic	Asian/ Pacific Islander	Native American	Other/ International
Full	15	0	9	0	1	4	1	0
Associate	2	3	2	0	1	1	0	1
Assistant	6	3	4	0	0	0	0	5
<b>Total</b>	<b>23</b>	<b>6</b>	<b>15</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>6</b>

However, the department expects to make two senior hires during 2009-10 (including an external department head) and anticipates two additional hires the following year. Several full- and part-time non-tenure-track faculty (Lecturers) augment the tenure-line faculty. Faculty are supported by seven full-time staff. As of spring 2008 (the most recent data), there were 373 undergraduate majors and 115 graduate students, most of them on the doctoral track. As Appendix A indicates, the number of undergraduate majors has dropped significantly, while the graduate program has remained stable.

Undergraduates may choose between a [Bachelor of Science \(BS\) in Economics](#) or a [Bachelor of Arts \(BA\) in Economics](#). Because of its administrative location within the College of Liberal Arts, undergraduate economics students receive a very well-rounded education. The Department's [Economics Research Laboratory](#) (ERL), which was founded by the late Raymond Battalio, is among the best-known behavioral economics research laboratory in the country. Dr. John Van Huyck was appointed director of the lab in 2000. In April 2009, Dr. Brit Grosskopf was appointed co-director along with Dr. Van Huyck. In addition to serving departmental faculty, the lab has been made available to visitors from other Texas A&M units or other universities. Though it is first and foremost a research facility, several faculty bring their undergraduate students into the ERL to participate in on-line experiments and games, thus enhancing their learning experience. During the past year, the department invested over \$80,000 in the lab to purchase new equipment and hire a graduate-student technician.

Presentation and discussion of research work by visitors, faculty and graduate students is intense, with weekly workshops in four areas: Macro/International, Econometrics, Applied Micro, and Theory/Experimental. Speakers for 2008-09 are listed in Appendix B.

The department also benefits from its connections with the [Private Enterprise Research Center](#) (PERC), directed by Dr. Thomas Saving, Distinguished Professor of Economics. Several department faculty hold PERC research professorships.

The Economics Department is located in the Robert H. and Judy Ley Allen Building. Adjacent to the George Bush Presidential Library, the Allen Building also houses the Department of Political

Science and the George Bush School of Government and Public Service. Several Economics faculty collaborate with faculty in the Bush School. The department also has connections to the Department of Agricultural Economics (AGEC). AGEC and Business majors enroll in several ECON graduate courses, which has led to unacceptably high enrollments in ECON 629 and 630 (see section III – Graduate Program).

### **Department Governance and Leadership**

The department bylaws (Appendix C) provide specific information on the department's governance procedures, standards, annual and promotion and tenure reviews, standing committees, etc.

All Texas A&M academic departments are led by a department head who carries out his or her duties in an environment of shared governance, codified in various University rules and procedures. The Economics department established an elected faculty Executive Committee (EC) in 2006 and redefined the composition and duties of the EC in 2008 when revising the current Bylaws. Since 2002, the department has had four different heads: Dr. Leonardo Auernheimer served as department head from January 2002-January 2006. Dr. Amy Glass served as interim department head from January 2006-September 2007 in the wake of an unsuccessful external search. Another unsuccessful search led to the appointment of Dr. Yoosoon Chang as department head in September 2007, but she resigned in February 2008, at which time the Dean appointed an external interim head, Associate Dean Larry Oliver (2008-present). The department is currently conducting a national search for a new department head.

The department has had four different graduate directors during the same period, with the position currently held by Dr. Rajiv Sarin (July 2008-present). Dr. Richard Anderson served both as Director of Undergraduate Programs (DUP) and Undergraduate Academic Advisor since 1995. In fall 2008, the department hired a half-time undergraduate advisor (Sarah Ura) to assist Dr. Anderson with advising duties. Effective September 2009, the duties of the DUP and Advisor will be separated: Dr. Tim Gronberg will assume the role of Director of Undergraduate Programs, and Dr. Anderson will continue as Undergraduate Advisor.

In response to a mandate from the upper administration, modest revisions were made to the Bylaws in May 2009 explicitly stating that multidisciplinary/interdisciplinary research and teaching would be appropriately rewarded in annual and tenure & promotion reviews.

### **Budget**

In fall 2003 the department's "base" or continuing budget was \$4,387,611. As of September 2008 it was \$5,279,111, an increase of \$891,500 (20%). In 2003, former president Robert Gates created the University's "Reinvestment Plan," which funded over 400 new faculty lines over a four-year period across the University. These lines were allocated through a competitive proposal process. The College of Liberal Arts designated six of the College's departments as "signature" programs for targeted investment. Economics was allocated a total of \$410,000 from the dean to upgrade an assistant to an associate professor line (Associate Professor Li Gan) and three new assistant professor lines (Hagen Kim, Alex Brown, and Stephanie Houghton). \$50,000 remains in the dean's office to support the hire of an external department head (see hiring plans in next section).

In the College of Liberal Arts (CLA), funds from vacated lines remain in the department for replacement hiring, except for a 20% retrieval by the dean's office for departures of tenured faculty. During the year of the search to fill a vacated line, the department retains 50% of the salary (50% of 80% if the 20% "tax" is applied). This one-time or "soft money" may be used at the department's discretion to fund operating expenses, temporary lecturers, summer teaching, faculty teaching reductions, graduate student travel, etc. The department will begin fiscal year 2010 (August 2009) with approximately \$500,000 in unallocated soft money. Of course, that healthy figure will diminish as vacated faculty lines are filled during the next two years.

Departments may request base funding from the dean to augment department funding when recruiting new faculty, but such "top-ups" are approved on a selective basis, usually when the department has insufficient base funds to make a hire. Thus Economics, like most departments in the CLA and university, is generally forced to hire assistant professors when senior faculty leave the department (see section II below).

It should be noted that after the 1999 external program review, the department was allocated \$200,000 to support its graduate program, half from the provost's office and half from the dean's office. The \$100,000 from the dean was base or permanent funding, but the provost's allocation

was transferred annually to the department's budget. Recently the department was informed that the \$100,000 allocation will be discontinued effective 2009, which will force the department either to decrease the number of assistantships or reallocate funds from other areas.

### **Vision and Goals**

The best work in economics develops testable theories and brings those theories to the data for estimation, testing, and, depending on the results, revisions to the initial theory. This process requires economic theorists, econometric theorists, and applied workers. On the one hand this requires abstract economic theorists who develop the general theoretical results, economic theorists working in applied areas who link abstract theory with area-specific information including relevant institutional detail and applied researchers who adapt models for empirical estimation and testing. On the other hand, this process relies on econometrics, from abstract econometric theory to applied econometricians who are skilled at implementing the results of abstract econometric theory and using it to estimate and test economic theories.

We aspire to have a department well-known as a leading practitioner of theory-driven estimation and hypothesis testing, a department where state-of-the-art economic theory is brought to the test, and where those tests are informed by methods derived from state-of-the-art econometric theory. Our theorists and econometricians will push the frontiers of the discipline, and our applied fields will be populated by researchers who understand and appreciate both abstract theory and frontier econometric methodology, researchers skilled at bringing theory and data together and using the best econometric methods for estimation, hypothesis testing, and analysis of results for implications for theory and policy.

In setting the direction for the future development of the department it is important to build on and utilize our strengths. At this time we are absolutely and comparatively strong in econometrics. Recent studies rank our econometrics group as high as 5th among public universities. Our ranking will probably suffer somewhat from the departure of Chang and Park, and we are in the process of searching for an econometrician to help replace this loss.

Our theory group is also relatively highly regarded, and was recently ranked as high as 9th among public universities. We are active in one of the fastest growing sub-fields of the profession,

behavioral economics, and our theory group works closely with our behavioral economics and experimental economics group. Our theory group provides an ideal backbone for the applied micro group, which in turn forms the closest link with the applied econometricians. We have recently hired to strengthen this group, which plays a pivotal role in core graduate training and provides the skills to enables our graduate students to do cutting edge research in theory-driven estimation.

Our traditional strength has been applied economics, and we have recently hired into this area, especially in the field of industrial organization and, to a lesser extent, public economics. We propose to focus future hires in specific areas of applied micro, including public economics and behavioral economics. We intend to focus our hires on applied economists well versed in microeconomic theory and econometric methods, so that these hires complement our existing strength in econometrics and in game theory. These applied economists will serve to link our theory and econometric groups, and will provide complementarities with these two groups as well as among the applied economists themselves. We envision hires building bridges between economic theorists and econometricians, applying theory to particular applied areas and using frontier econometrics to estimate the models and test the theories. The skills we are looking for occur across disciplines, and we think the applied micro areas are the most likely place to build bridges between our extant micro theorists and our econometricians, and we have identified public economics and behavioral economics as fields of special interest. But field itself is secondary; our focus is on skilled researchers combining an appreciation and knowledge of abstract theory with a knowledge of advanced econometric methodology and skills at combining these to yield first-class research.

Li Gan, whom we brought to our faculty in 2005, Steve Puller, recently tenured, and Brit Grosskopf, recently tenured, provide three good examples of the type of hire we have in mind. Li is an economist well-trained in econometric methods and in advanced theory, and his work lies at the intersection of economic theory and econometrics, bringing theory to the test and employing the best econometrics to estimate and test his economic models. Steve is an I.O. economist who focuses on empirical tests of economic theory. His work requires an understanding of the most recent developments in theory coupled with a good understanding of econometric methods for testing the theory. Brit is a behavioral and experimental economist, who works at the intersection

of economic theory and experimental methods. Her work requires a good understanding of recent theoretical developments coupled with the knowledge of experimental method and design.

### **Summary**

The above associate professors provide examples of the type of faculty we wish to hire in applied microeconomics. We are looking for people who combine a knowledge and appreciation of modern economic theory with a keen understanding of and interest in the use of frontier econometric and experimental techniques to test and to apply economic theory. We will hire faculty at the intersection of economic theory and empirical technique, faculty interacting with theorists and field specialists to test economic theory. This strategy thus allows us to leverage our existing strengths in econometrics and micro theory. Hiring faculty with these research approaches will create significant research synergies; congruent research philosophies will facilitate collaborative research and promote an active research community. Following this plan will make use of and build complementarities with our existing econometricians and economic theorists. The combination of existing faculty and new hires will create a critical mass of active applied micro types with common fundamental research approaches. In addition to the within-group advantages of such a concentration, we anticipate large spillovers across other researchers in the department.

### **III. Faculty and Research**

#### **Faculty Profile**

As noted in Table 1 above, the department will have 29 tenured/tenure-track faculty: 15 Full Professors, 5 Associate Professors, and 9 Assistant Professors (one of whom will be leaving in May 2010). As Appendix D indicates, since 2004 the department has lost 14 faculty—7 of them senior— and hired 11 (five of them Assistant Professors hired during Spring 2009). The department is currently searching for an Associate or possibly Full Professor in Econometrics (ECMT) to help offset the recent losses of Professors Joon Park and Yoosoon Chang, and also for a Full Professor (field open) to serve as department head. In addition, the department currently has in its budget funding for two additional lines in 2010-11. Thus, like many departments in the College of Liberal Arts, Economics is in a rebuilding period.

All of the Full Professors are men, but 3 of the Associate Professors (60%) and 3 of the Assistant Professors (33%) are women. According to a recent survey by the Committee on the Status of Women in the Economics Profession, the percentages of female faculty at PhD granting institutions in 2008 were: tenured Full Professors (8.7%), tenured Associate Professors (21.4%), and Assistant Professors (28.9%). Thus the department percentages of women exceed the national average at the associate and assistant ranks but are lower at the full professor rank. In terms of racial diversity, the department has 2 Hispanic (6.6%) and no African American faculty. These percentages are not out of line with those of PhD granting institutions nationwide: Hispanic (3%) and black (1.3%). Nonetheless, the department is committed to increasing the gender and especially racial diversity of its faculty and graduate students. During the last hiring period (spring 2009), in addition to hiring two women, an offer was made to an African American who ultimately accepted a position at another institution. As part of its long-term strategy for attracting minority faculty and graduate students, the department has developed strong connections with the American Society of Hispanic Economists (ASHE), whose president, Dr. Marie Mora, received her PhD in Economics from this department and is a Professor at the University of Texas-Pan American. In 2007 and 2008, the department hosted two well attended conferences on “Economic Issues Affecting Hispanic Americans” (2007 and 2008) that brought about 30 faculty and prospective graduate students (most of them Hispanic) from the University of Texas-Pan American and several other Texas schools that serve large numbers of Hispanic students. Professor Mora co-directed the conference with Dr. Dennis Jansen in 2007 and Dr. Rajiv Sarin in 2008. Funding for the conference was provided by the department and the College

of Liberal Arts. Our department is now planning a third and expanded conference for September 2009 that will include participation from members of the National Economic Association. We hope that the conference will become an annual event and continue to bring to campus black and Hispanic faculty and students who will directly or indirectly help us recruit minority faculty and graduate students.

### **Teaching**

The standard teaching load for tenure-track faculty is 2-2. However, the department has been able to fund one-course teaching reductions for faculty who have especially productive research programs. Moreover, we have been able to offer competitive teaching loads for new assistant professors: 1-1 the first year, and 2-1 during the second and third years. All assistant professors undergo a comprehensive mid-term (third-year) review that includes review by the Dean and the Dean's Advisory Committee (DAC). Assistant Professors who have a positive third-year review will receive a semester's release from teaching during the fall or spring of their fourth year.

Tenured and tenure-track faculty generally teach upper-level undergraduate courses and graduate courses. Most of the large-section introductory courses (ECON 202 and 203) are taught by one Full Professor (John Allen) and the department's three Senior Lecturers. Part-time Lecturers are hired as needed. Several of our tenure-line faculty have developed and teach writing-intensive or "W" courses that are mandated by the university. The department also offers several Honors classes each semester. Enrollment in "W" and Honors classes is limited to 24 students.

The department takes its teaching mission seriously, and the evidence indicates that faculty and Graduate Teaching Assistants (GATs) are performing very well in the classroom. (The GAT training program is discussed in section III.) All course instructors are evaluated by their students each regular semester using a standard evaluation form. With few exceptions, Economics faculty and GATs receive scores of 4 or higher on a 5-point scale. Appendix E provides the department-wide averages on the 15 questions to which students respond. Two current faculty (Dr. John Allen and Dr. Richard Anderson) have won College of Liberal Arts Distinguished Teaching Awards, and two others (Dr. Brit Grosskopf and Dr. Steve Puller) were selected to receive the university-wide Student Led Award for Teaching Excellence (SLATE) for Fall semester 2008. By university policy, teaching performance must be factored into annual evaluations, which are the basis for merit salary allocations, as well as into the evaluation for tenure and promotion.

Student ratings, which must always be contextualized, are only one of multiple indicators used to assess teaching performance, others being creation or revision of new courses; directing and placing graduate students; teaching Writing-Intensive courses; etc.

Each of the classrooms used by the department in the Allen Building as well as the ERL is equipped with a Symposium for classroom instruction. A Symposium is also available to workshop and seminar speakers in room 3125. During spring 2009 the department provided demonstration workshops for faculty and graduate students interested in learning to use the technology in their classes.

### **Mentoring**

As noted in Appendix D, the department has lost 7 assistant professors since 2004. Though the reasons for their departures varied, the numbers suggest that the department must devote more attention not only to hiring assistant professors who have the potential to meet the tenure standards, but also to providing them with appropriate mentoring. To that end, the department has a formal mentoring plan (Appendix F). All new assistant professors are assigned at least one senior mentor during their first year. In subsequent years less formal mentoring relationships are strongly encouraged. In addition to the comprehensive mid-term review, each assistant professor is reviewed annually by the department head, with input from the tenured faculty. Candidates submit an Annual Summary of teaching, research, and service activities; vita; and two-page narrative outlining their teaching and research plans for the coming two years. These documents are reviewed by the tenured faculty, who then meet to discuss each dossier and to vote by confidential ballot on two questions: “Is the candidate making satisfactory progress toward tenure?” and “Should the candidate’s appointment be renewed?” The department head’s annual evaluation of each assistant professor reports the faculty vote and summarizes the discussion, including expectations for the coming year. Thus from their first year until their tenure and promotion review, tenure-track faculty receive feedback and guidance aimed at helping them build a dossier that will lead to a successful tenure review (normally in their sixth year).

### **Faculty Salaries**

Appendix G compares the department’s average nine-months faculty salaries by rank to those of departments at peer institutions for 2008-09, the most recent data available from the TAMU Office of Institutional Studies and Planning Salaries (OISP). Salaries at the Associate Professor level are slightly above the average of our peers, while the mean for Assistant Professors is

somewhat below (94%). However, the average nine-months salary of Full Professors (87%) lags well below those of our peers. Individual salaries of Full Professors currently range from a low of \$87,307 to a high of \$237, 238. Of course, the relatively low mean salary of Full Professors is due in part to relatively low research productivity among some members of that rank, but several productive faculty are significantly underpaid. Salary compression is a problem in many departments at the university, but it is nonetheless a significant problem that should be addressed when funds for salary equity become available.

### **Research Support and Productivity**

The department provides the following research support for faculty:

- All faculty have a computer workstation with internet connection and receive a new computer every four years. Faculty who need special equipment or software generally receive it.
- Faculty are allocated \$1,000 annually for conference travel if they are delivering papers (\$2,000 for assistant professors). Faculty who need additional funding to present at conferences usually receive it.
- Newly hired faculty receive research bursaries.
- Faculty may apply for one-course research reductions each year, as well as Development Leave (sabbatical) every five years.
- All research-active faculty have one or more Graduate Research Assistants.
- Economics Research Laboratory is an excellent resource for faculty who do experimental work.
- By university policy, salary increases are based on merit (there are no across-the-board raises).

The College of Liberal Arts funds a summer research grant program (\$5,000) for assistant professors. All faculty may apply for grants (up to \$10,000) awarded by the university's Program to Enhance Scholarly and Creative Awards.

Appendix H shows faculty publications in what are generally considered the top general and field journals as well as external funding during the past five years. Several full and associate

professors have been placing their work in top journals, but a significant number of full professors have not published in a top journal in the past five years. If the department is to enhance its national reputation, publications in leading journals and awards of major grants must increase. Several full professors have made efforts during the past year to reinvigorate their research programs, so it is hoped that the proportion of faculty publishing in leading journals and securing external funding will increase in the years to come.

### **Academic Master Plan**

As part of the University's Academic Master Plan, the Provost called for faculty to collaborate across units to prepare interdisciplinary research White Papers. Details of the Master Plan are on the web at <https://amplan.tamu.edu/>. A number of Economics faculty participated in the writing of White Papers, and Qi Li is a member of one of the proposals that was selected as a "landmark areas" for investment: "Applied Mathematical, Statistical and Computational Sciences: The Key to Unlocking the Landmark Challenges." Also, two of our faculty (John Van Huyck and Steve Puller) are working with faculty from multiple colleges on a planning grant awarded by NSF to form a I/UCRC (Industry & University Cooperative Research Center) to study plug-in hybrid electric vehicles. Several other faculty regularly collaborate with colleagues in Statistics, Ag Econ, Business, and the Bush School.

### **Program in Microeconometric Analysis (PIMA)**

This department research program was created in 2008 to generate research synergies between faculty working in empirical microeconomics, and to enable our graduate students to benefit from our department's strengths in these areas. PIMA faculty seek to foster an environment in which graduate students collaborate with faculty on on-going research projects and progress on their dissertation as part of an active research community.

PIMA faculty have research strengths in various areas of public finance, industrial organization, and labor economics. In addition, they have developed unique datasets in several important areas: airline pricing, secondary education and school choice, social networks in higher education, electricity markets, as well as many of the standard large survey databases (e.g. NLS and PSID).

Department supports PIMA by funding four graduate students for 1.5 months in the summer to participate in an on-going research project with a PIMA faculty member. During summer 2009, two second-year students are working with faculty on new research projects; one with Stephanie Houghton on a project related to environmental regulation, and another with Steve Puller on a project studying the airline industry. A fourth-year student is working on a school choice project with Tim Gronberg and Dennis Jansen. A fifth-year student is working with Li Gan on a project studying trends in female higher education. (When the department initiates its summer undergraduate research program in 2010, it is expected that one or more of the students will be assigned to PIMA faculty.)

PIMA students and faculty participate in a weekly brownbag workshop held each semester in which graduate students present research. Each student is expected to present a research proposal or paper once a year beginning in their third year. This brownbag workshop complements our standard faculty Applied Micro workshop that has been supported by both the Private Enterprise Research Center and the department. These workshops provide a common forum to share knowledge about methodological techniques and microeconomic tools that can be applied across the fields of public, labor and industrial economics.

The department dedicates one office to house four PIMA students during the academic year. We hope that assembling graduate students who work in applied micro in a common office will facilitate interaction and shared insights on their research. The office is located amongst the offices of applied micro faculty.

*Affiliated Faculty:* Li Gan, Tim Gronberg, Stephanie Houghton, Denis Jansen, Qi Li, Jonathan Meer, Steve Puller, Manuelita Ureta, Steve Wiggins.

## IV. The Graduate Program

### Graduate Student Profile

In 2008/9 we had 82 students enrolled in our Ph.D. program. Their distribution across the years is given in Table 2. (These data are from the department files for Fall 2009 and might not match figures published by the Office of Institutional Studies and Planning.)

**Table 2: Ph.D. Students by Year**

1 <sup>st</sup>	27
2 <sup>nd</sup>	8
3 <sup>rd</sup>	17
4 <sup>th</sup>	9
5 <sup>th</sup> +	21

Twenty-three (28%) of the Ph.D. students are female. We have no African-American and one Hispanic-American student. The American Economic Association's *Minority Report* (Winter 2009) reports that in 2006-07 (most recent data available), 3.1% of new Economics PhDs were Hispanic and 5.7% were black. Twelve (14.6%) of our doctoral students are from the US and the rest are international: 21 from China, 22 from Korea, 9 from South America and 18 from other countries.

There are 50 students in the MS program: 17 are female; 14 are from the US, 15 from China, 4 from Korea, 3 from South America and 14 from other parts of the world.

Table 3 gives the composition of our students by country of origin.

**Table 3: Current Graduate Students by Country/Region of Origin**

	USA	China	Korea	S. America	Rest	Total
PhD	12	21	22	9	18	82
Funded (PhD)	9	18	9	7	7	50
MS	14	15	4	3	14	50

### The Applicants

Our applicant pool for the Ph.D. program over the past four years has averaged about 227 students, and we admit about half of them. Typically, 25% of the admitted students enroll in the program, leaving the entering class with a size of about 28. On average, 10 students who enter

our Ph.D. program are funded by the department. Table 4 gives the composition of the applicant pool by year starting in 2006. We are pleased with the significant increase in domestic PhD students this year.

**Table 4: Ph.D. Applicant Pool by Country of Origin**

<i>Applicants 2009-10*</i>						
	USA	China	Korea	S. America	Rest	Total
Applied	33	111	28	11	47	230
Admitted	28	47	12	8	23	118
Entered*	11	12	2	3	9	37
Funded	7	2	0	0	3	12

<i>Applicants 2008-09</i>						
	USA	China	Korea	S. America	Rest	Total
Applied	30	113	54	9	49	255
Admitted	16	54	16	4	31	121
Entered	5	5	5	1	11	27
Funded	5	2	1	0	2	10

<i>Applicants 2007-08</i>						
	USA	China	Korea	S. America	Rest	Total
Applied	30	95	45	9	48	227
Admitted	20	22	14	8	26	90
Entered	7	6	4	3	6	26
Funded	4	4	0	1	2	11

<i>Applicants 2006-07</i>						
	USA	China	Korea	S. America	Rest	Total
Applied	33	68	35	9	52	197
Admitted	30	40	22	8	36	136
Entered	6	3	4	5	6	24
Funded	1	2	2	2	2	9

*\* numbers may change by start of Fall 2009 semester*

### **Graduate Recruitment**

Much recruiting is done by individual faculty through their various networks. Several faculty hold appointments with foreign universities and recruit international students into our program.

As noted in section I, our efforts towards recruiting domestic students include hosting a conference on “Economic Issues Affecting Hispanic Americans” that we have hosted for the last two years. We will be hosting another in September 2009, in which the focus of the conference has been broadened to include economic issues affecting African-Americans. Faculty who participate in this conference are encouraged to bring students who are interested in graduate studies. This allows the students to be exposed to academic conferences and introduces them to the graduate program at TAMU.

As part of our effort to develop a recruitment pipeline with UT-Pan Am, Dr. Brit Grosskopf visited that campus this past spring to give a paper and meet with students. A faculty member from Pan Am subsequently visited our department to conduct experiments in our Economics Research Laboratory (ERL). Also in February 2009, Dr. Doug Steigerwald, director of the American Economic Association Summer Program, visited the department to promote the program and meet with faculty and students. We plan to strengthen our connection with and participation in the program.

Another aspect of our recruiting efforts includes campus visits by students that have been admitted with financial aid into our program. For the past three years we have hosted an average of 5 admitted students for 2 days. Besides getting to know the campus and meet with current Ph.D. students, the admitted students are given presentations by current Ph.D. students and research active faculty. This past year we were particularly successful as 3 out of 6 subsequently accepted our offer.

### **Budget and Stipends**

For the past Fiscal Year (2009), the department allocated \$628,000 to its graduate budget. However, as noted above, \$100,000 of that allocation came from the Provost’s Office, which will discontinue funding at the end of this fiscal year. The Dean of Liberal Arts has committed \$60,000 in one-time funding for FY10 and \$30,000 in FY11 to allow time for the department to reallocate funds to the graduate budget. The department funding is augmented annually by allocations of Graduate Enhancement Funds from the Dean’s Office (\$17,000 in FY09) for graduate student travel and fee subvention. During the academic year, the department funded 34 half-time (20 hours per week) graduate assistants (GAs). Two students were funded as PERC Bradley Fellows; one through a private gift (Terry Larsen); and 6 by external grants. Several

other students were funded for a single semester. Department and private funds also fund tuition of \$1,000 for some students. Out-of-state recipients of these scholarships are entitled to in-state tuition. At present, the department can afford to fund about 10 new doctoral students each year. On average, 20 international students, many of whom come with funding, enroll each year. However, their funding is usually limited to two years, which increases demand for department assistantships during the third and fourth years.

The stipends for entering GAs are \$15,000 for ten months (ten because they arrive in August to enroll in “Math Camp”). After that, they receive \$14,400 for nine months. On average, six GAs are funded for 1.5 months to teach classes during the summer. During summer 2009, an additional six were funded as Research Assistants to work with faculty on research projects. As Table 5 shows, our stipends are below the mean, but not dramatically so, when compared to peer institutions. However, where GAs at most of our peer institutions pay little or no tuition and fees, our GAs pay nearly \$2,000 a year in fees, which makes our overall compensation less competitive than it should be.

**Table 5: Graduate Student Stipends**

University Name		9 months Stipend/Hours	Tuition & Fees Paid by Student	Net Pay
Penn State @ University Park	Teaching	\$19,170/20		\$19,170
	Research	\$16,589/20	\$0	\$16,589
University of California @ San Diego	Teaching	\$16,391/20	\$541.5	\$15,849.5
	Research	\$19,617/20	\$0	\$19,617
University of California @ Los Angeles	Teaching	\$18,295/20		\$17,949.5
	Research	\$14,530/20	\$345.50	\$14,185.5
University of Michigan @ Ann Arbor	Teaching	\$15,199/20		\$15,104
	Research	\$16,496/20	\$95	\$16,401
Ohio State	Teaching			
	Research	\$15,642		\$15,642
University of North Carolina @ Chapel Hill	Teaching	\$14,489/14		\$14,489
	Research	\$15,200/14	\$0	\$15,200
University of Indiana	Teaching	\$14,924/20		\$14,061
	Research	\$13,320/20	\$863	\$12,457
Michigan State	Teaching	\$13,890/20		\$13,890
	Research	\$14,112/20	\$0	\$14,112
University of Texas @ Austin	Teaching			
	Research	\$14,202/20	\$400	\$13,802
University of Minnesota	Teaching			
	Research	\$15,000/20	\$1,200.00	\$13,800
<b>Texas A&amp;M University</b>	<b>Teaching Research</b>	<b>\$14,400/20</b>	<b>\$1,836.00</b>	<b>\$12,564</b>
University of Wisconsin @ Madison	Teaching	\$12,842/18.4		\$12,507.72
	Research	\$11,790/18.85	\$334.28	\$11,455.72

\*\*Sources: *Chronicle of Higher Education*, December 1, 2008, and personal contacts.

## **Mentoring**

Entering graduate students are assigned senior graduate students or faculty as mentors to help them get settled into the academic environment.

After completing their coursework they are required to present their research in student seminars that are attended by students and faculty. Senior students are also required to participate in the faculty workshop series. They are given the opportunity to meet with faculty from other universities who are presenting their work in the workshop series.

Most graduate assistants are assigned as research assistants or as assistants to faculty who teach large classes. However, each semester five or six doctoral students in their dissertation stage are assigned full responsibility for teaching an undergraduate course (202, 203, or 323). These GATs (Graduate Assistant-Teaching) are selected by the Director of Graduate Studies in consultation with faculty. Training and mentoring of new GATs was done informally until summer of 2008, when the department instituted a formal GAT Training Program. Dr. John Allen, winner of a College of Liberal Arts Teaching Award, was appointed as coordinator of the training program. Dr. Allen produced written guidelines and other materials for the new GATs (Appendix I), who meet with him before and during the semester to discuss pedagogical issues, problems, and successes in their classrooms. He observes at least one class and provides feedback to the GAT. They may request a letter of evaluation for their job portfolio. The response from the GATs has been very positive, as have ratings they have received from the students they teach. GATs are encouraged, but not required, to make appropriate use of technology, including the Sympodiums that are now in each of our classrooms in Allen Building. During Spring 2009, the department arranged for a workshop on using Sympodiums conducted by a specialist from the Office of Instructional Technology, which was attended by about 10 graduate students. The department will continue to arrange for such workshops in the future.

As noted in section I, four GAs are assigned to assist faculty in the PIMA program, where they gain valuable research experience working with their faculty mentors.

In an effort to assess and improve the climate for graduate students, the department head and graduate director met with the elected members of the department's Graduate Student Association during Spring 2008. After that productive meeting, the GSA representatives were invited to present a list of recommendations for improving both the academic and social climate in the department. As a result of the students' suggestions, the following actions have been taken:

- The GSA now has a non-voting representative on the Graduate Instruction Committee.
- The Graduate Handbook was updated and policies clarified.
- GSA will have a \$1,000 annual budget.
- A double-sided printer was purchased for the student computing lab.

### **Preparing the Students**

We have been offering math and stat preparatory courses for incoming doctoral students in August since 2006. The syllabi for these courses are in Appendix J. Students receiving financial assistance from the department are required to take these courses, whereas it is recommended for the other students. All students must pass the exams. Three chances are given to the students to pass the exams.

### **The First Year**

In the first year students complete their core curriculum by taking classes in Micro, Macro and Econometrics. In both Fall and Spring, students take 3 classes in each of these subjects. Syllabi for these courses are in Appendix K.

A notable issue in some of these classes is their large size. In addition to ECON students, most students in the Agricultural Economics (AGEC) program, and some from the Business school and the Industrial Engineering programs also take these classes. In the past few years, our first-year Micro classes have had an enrollment of 60-70 students, which has adversely affected the quality of instruction. Thus we are considering offering two sections of ECON 629 (Micro I) and ECON 630 (Micro II) each year if resources permit.

### **Qualifying Exams and First-Year Retention**

Effective in 2007, students had to take qualifying exams in each of the three core areas after the first year of classes. They get two attempts to pass each qualifying exam. A petition can be sent

to the GIC for a third attempt. Table 6 summarizes the passing rates over the past 5 years (see Appendix L for results by field). The average pass rate for the five-year period is 55%.

**Table 6: Qualifying Exams**

Year	Pass Rate	Total to take exams	Total to pass all
2009	67%	21	14
2008	42%	17	7
2007	58%	26	15
2006	32%	25	8
2005	78%	22	17

Some, but not all, faculty are concerned about the passing rates. Some faculty suggested that the addition of a third Qualifying requirement has decreased passing rates. However, as the table indicates, the pass rate has varied widely over the past five years, which is also a matter of concern. During faculty discussions of the Qualifying Exams, the consensus was that it would be premature to eliminate the third Qualifying or restructure exams until after the external review. We seek the external reviewers' suggestions on this important issue.

In addition to those who fail the Qualifying Exams, some students leave the program for other reasons without taking the exams. Table 7 shows first-year retention rates for the past five years:

**Table 7: Ph.D. First-Year Retention**

YEAR	ENTERED	TOOK QUALS	FAILED QUALS	LEFT PHD PRIOR TO QUALS	REMAINING PHD CLASS (RETENTION RATE)
2008-09	27	21	7	6	14 (52%)
2007-08	24	17	10	7	7 (29%)
2006-07	31	26	10	5	16 (52%)
2005-06	28	25	15	3	10 (36%)
2004-05	29	22	5	7	17 (59%)

The average retention rate for the five-year period is 45.6%. A study of graduate retention rates at a range of institutions published in the *AER* 96.2 (May 2006) found that the cumulative second-year retention rate for the initial classes of students averaged 73.5%. The retention rate was highest (89%) at top-tier institutions (which include several of our Vision 2020 peers). Third- and fourth-tier programs at public universities tended to have significantly lower retention (about

57%). Based on these data, a 70-75% retention rate would seem to be a reasonable target for the department, though, again, there is not faculty consensus on this matter.

### **The Second Year**

Second year students take field courses. Students are required to take 3 fields, each consisting of a two-course sequence. Students are required to declare one of their fields as their major field. Most commonly, students end up pursuing their dissertations in this area. They are expected to take a field exam in that field. This requirement may be waived by the field committee.

Appendix M lists our field course offerings in the past 5 years. We have been offering an Econometrics field every year. The courses making this field are Applied Microeconometrics (ECMT 677), Nonparametric Econometrics (ECMT 678) and Time Series Econometrics (ECMT 679). Another field we have offered every year has been Industrial Organization, consisting Industrial Organization I (ECON 649) and Industrial Organization II (ECON 650). Fields offered in most years include Monetary Economics, Public Economics, International Economics. We have also offered fields in Behavioral and Experimental Economics, Financial Economics, Human Resource Economics and Advanced Theory in the last 5 years. While we make every attempt to offer as many field courses as possible, our efforts are hampered both by faculty limitations and by inadequate number of students who enter the second year. We are required to have at least 5 students enrolled for a course to be offered, unless special permission is received from the upper administration. This constraint is particularly severe in years in which fewer than usual students get through the Qualifiers.

### **Third Year and Beyond**

In the third year students finish field courses, do work in independent studies and, in most cases, begin work on their dissertation. Students are required to present their work in student workshops and attend faculty workshops. These are in the areas of Theory/Experimental Economics, Macroeconomics/International, Applied Micro and Econometrics.

### **Placement**

Most students go on the job market in their fifth year. The Department does not provide funding for students beyond the fifth year.

Students going on the market are expected to present their job market paper in the faculty workshop in their area in the fall of their fifth year. Faculty offer preparatory mock interviews in preparation for the job market. The department provides some limited assistance to students in sending out their job market packages.

Directed placement efforts are made by faculty who advise students. They individually contact people they know regarding the students they have on the market. Students who have been on the market meet with students about to go on the market to share their experiences. A placement director coordinates many efforts made by the Department to help the students on the market. These efforts include presenting the students on the Department web-site, organizing a series of mock-interviews to acquaint the students with prevailing customs regarding what they might expect in interviews. Each mock interview has a group of Department faculty, including members of the student's dissertation committees. The placement director also mails summary information about the students on the market to a large set of institutions who would be hiring that year.

Virtually all our students get jobs in academe, government, or business, and many go on to have successful careers (Appendix N). However, our initial academic placements have not been as good as we would hope for. We have not been able to place a student in a peer or better economics department in the last decade. In recent years, we have placed students in such Ph.D. granting universities such as Alabama (Paan Jindapon), Arkansas (Jingpeng Gu), and Alicante, Spain (Carlos Oyarzun). We have also placed students in good consulting firms like the Analysis Group (Anirban Sengupta), Ernst and Young (Megha Watugala) and some in international organizations like the International Monetary Fund (Eza El-Zein).

### **The MS Program**

The number of students in our MS program has grown significantly in the past few years. This is largely unintentional. Most of the students who received the MS degree in the past have been students who were unable to pass the Ph.D. Qualifying Exams. Very few students were admitted solely for the Masters degree. In the last few years their number has grown while the resources available to adequately train them have not. We are, consequently, requesting that applications for the MS program be frozen.

The MS students have 3 required courses, which the department offers. These are Macro (ECON 611), Micro (ECON 607) and Mathematical Economics (ECMT 660). Other than those, the students have considerable freedom in which courses they choose. Typically, they take a mix of advanced undergraduate Econometrics courses, MS level courses in the Mathematics and Statistics Department, and Ph.D. level courses in the Business school. Some, however, take courses that are only distantly related to Economics.

The current resource limitations have led the Department to consider focusing faculty resources, in the near future, more on the BA/BS (in particular, Honors courses) and Ph.D. programs. Hence, the proposed freeze on MS admissions.

### **General**

The loss of several senior faculty has limited our ability to offer some fields that we have regularly offered in the past -- most notably labor. We have begun to make an effort to develop some fields that we have offered only occasionally in the past -- this includes behavioral and experimental economics, advanced theory and public economics. We intend to offer these more regularly in the future than we have in the past. Further development of these fields is consistent with the department objective to strengthen its applied micro area: both empirical and theoretical.

We have an active Graduate Student Association. Members from each year hold an election for their GSA representative. The GSA maintains a website on the Department home page (<http://econweb.tamu.edu/gsa/>). It keeps students informed about financial assistance opportunities through the Department, the University and outside TAMU. It also provides an alternate source of critical dates and deadlines for the students in the program.

### **Assessment Plan**

All academic programs at Texas A&M are required to have an approved assessment plan, which is filed electronically in the university's Weaveonline system. The department has established learning outcomes and measures for both the master's and doctoral programs. Since the master's degree assessment is based on performance in master's degree courses that are offered in the fall, no assessment data is available at this time. Moreover, as noted above, the master's program itself needs to be reevaluated. Data for the doctoral program assessment were collected during Spring 2009. As the assessment grid in Appendix O indicates, doctoral students are assessed in three areas: analytical skills, quantitative skills, and communication skills. Communication skills are assessed during the Preliminary Oral Exam and Final Oral Exam. Thus far, all students

demonstrated oral proficiency, as expected. The analytical and quantitative skills are assessed during the written Qualifying Exams that students take at the end of their first year. Twenty-one doctoral students took the Micro, Macro, and ECMT Qualifying Exams in May/June 2009, the initial implementation of the assessment plan. Roughly half of the students failed one or more of the three exams during the initial attempt, but many passed their second attempt. In the end, two-thirds passed the Qualifying Exams. The department is now (August) having discussions about next steps in the assessment process.

### **Strengths of Graduate Program**

- The pool of doctoral program applicants, especially international students, is large, and there was a sharp increase in domestic enrollments this year.
- The curriculum is strong and is enhanced by workshops and seminars.
- Graduate students enjoy opportunities for research in the ERL.
- There is a mentoring program for new GATs
- Almost all PhDs find good jobs.

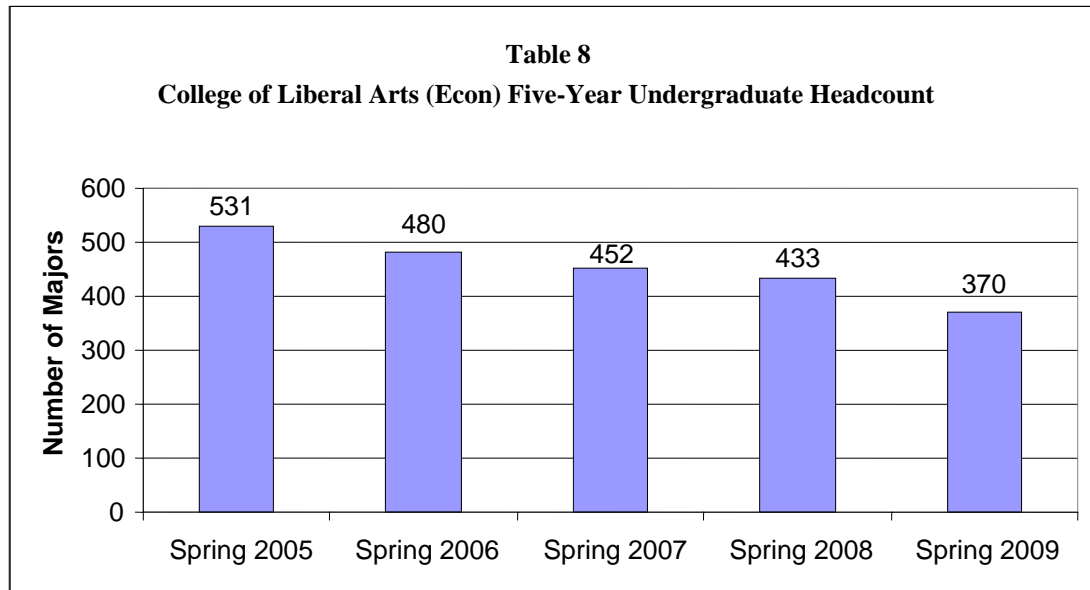
### **Matters of Concern to the Graduate Program**

- Racial diversity of doctoral students needs to be increased.
- Qualifying exam pass rate has varied widely, and low pass rates negatively affect enrollment in doctoral courses. Enrollments and retention rate need to stabilize.
- Placement of PhDs in doctoral-granting programs at other research universities remains weak.
- Loss of \$100,000 annual funding from Provost will reduce number of assistantships, which is already relatively low.
- MS program lacks structure and rigor and should perhaps be eliminated (except as a default for students who do not finish PhD program). Applications for 2010-11 should be frozen immediately.
- ECON 629 and 630 classes, which serve students from AGEC and Business as well as ECON majors, are too large (average of 70 students each). Offering two sections of each would add stress current resources.

## V. Undergraduate Program Facts and Features

### Student Clientele

The department has 370 majors in the Spring 2009. As shown in Table 8, the numbers of majors has declined steadily from 531 in the Spring 2005. One reason for this decline is a change in admissions policy in the Mays Business School. In the past, students from general studies would transfer into Economics as a major because of the stringent requirements for entering the Business School. The transfer hurdle was considerably higher than simply being eligible for honors courses. Recently this very high hurdle for transferring to the Business School was substantially lowered. Now at least 30 hours of Texas A&M University credits with a minimum GPR of 3.0 allows a student to transfer into the Business School. Many students who in years past would have majored in Economics now enter the Mays Business School.

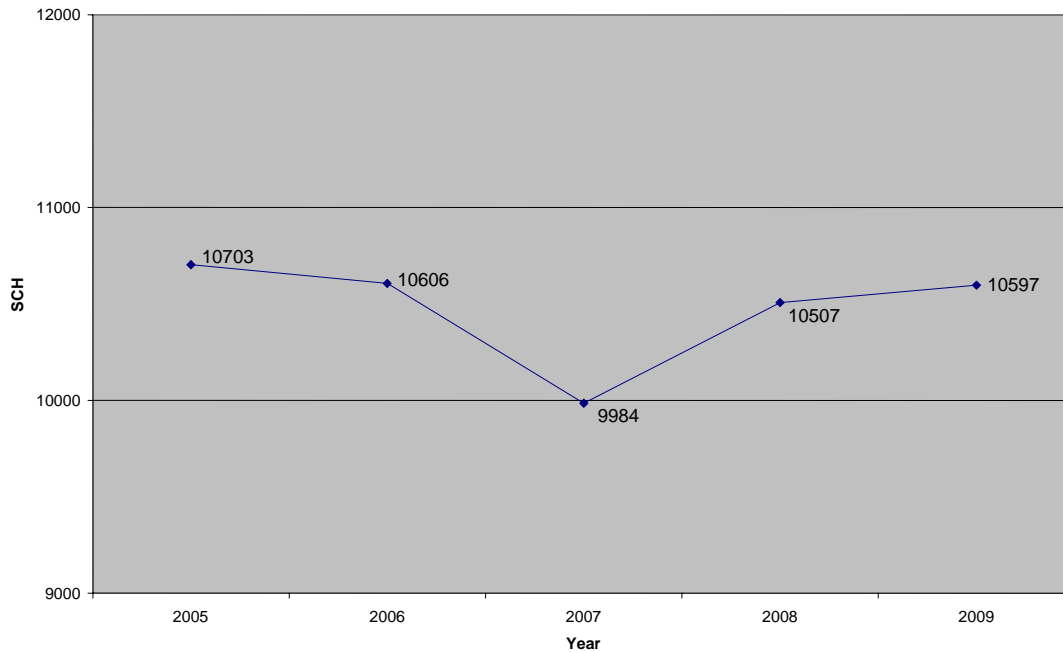


In spite of the decline in the number of majors, the aggregate demand for seats in undergraduate economics classes remains high. The department supplies five courses that service a large number of non-econ major students: Principles of Economics (Econ 202 and 203), Money and Banking (Econ 311), Managerial Economics (Econ 322), and Intermediate Microeconomic Theory (Econ 323). In academic year (AY) 2008-09, the department taught 4311 students in Principles, 347 students in Money and Banking, 265 students in Managerial, and 532 students in Intermediate Microeconomic Theory. In the Spring semester of 2009, only 28% of the students in Econ 311, 0% of the students in Econ 322, and 23% of the students in Econ 323 were Economics majors.

The upper division outside demand comes primarily from the business school (with over 4000 undergrad majors) and from agricultural economics (635 majors).

The total number of undergraduate student credit hours (SCH) taught by our department (10,597 SCH for Spring 2009) sits at the middle (7<sup>th</sup> out of 12 departments) of the SCH distribution for the College. The College of Liberal Arts generated the largest undergraduate SCH in Spring 2009 among the colleges at Texas A&M. As shown in Table 9, the undergraduate Spring semester SCH for the department has been basically constant over the period 2005-09, other than a small dip in 2007. The Spring 2009 SCH is only 1% lower than the corresponding SCH for Spring 2005.

**Table 9: Department Undergraduate SCH (Spring Semester)**



The undergraduate SCH/FTE ratio for the department (calculated as the Spring 2009 undergraduate SCH divided by the AY 2008-09 FTE) is 392 (which is a 2.6 % *increase* from the comparable figure of 382 for AY 2004-05). As shown in Table 10, this SCH/FTE ratio ranks 5<sup>th</sup> out of 12 departments in the College. The comparable undergraduate SCH/FTE ratio for the University is 268. The bottom line is the Department continues to be a steady and significant producer of undergraduate student credit hours.

**Table 10: SCH/FTE Ratios for College of Liberal Arts (Spring 2009)**

Department	SCH <sup>1</sup>	FTE <sup>2</sup>	SCH/FTE
<i>ECON</i>	10,597	27	392
<i>ANTH</i>	6,666	25	267
<i>COMM</i>	11,994	18	666
<i>ENGL</i>	18,957	50	379
<i>EURO</i>	4,332	16	271
<i>HISP</i>	4,675	15	305
<i>HIST</i>	19,013	42	453
<i>PHUM</i>	5,418	20	271
<i>POLS</i>	19,270	37	521
<i>PRFM</i>	12,479	14	891
<i>PSYC</i>	13,252	34	390
<i>SOCI</i>	8,853	30	295

<sup>1</sup> from OISP Student Credit Hour Report for Spring 2009

<sup>2</sup> from OISP Faculty Salary Study for FY 2009

### **Characteristics of Economics Majors**

Economics majors are predominantly white, non-Hispanic males. Among the 370 majors in the Spring 2009, 300 (81%) are male. As for ethnicity, 283 (76%) are white, non-Hispanic; 36 (10%) are Asian or Pacific Islander, 35 (9%) are Hispanic, 11 (3%) are international, 4 (1%) are black, non-Hispanic, and 1 is American Indian/Native Alaskan.

The department will taken steps to increase enrollment of women and minority students. Dr. Manuelita Ureta in 2008 created a new course, Economics 318, Gender and Race, which is cross-listed with Women's Studies. It is hoped that this course will begin attracting Hispanic students into the major.

### **Academic Performance by Majors**

The following chart shows that as of Spring 2009, 17 of the 370 majors have GPRs of 3.75 or higher. Another 23 majors have cumulative GPRs in the range of 3.50 to 3.74. Together, these 40 students are eligible to take honors courses in the College of Liberal Arts. They are the principal clientele for honors courses offered by the department. Some economics majors are saddled with low cumulative averages because of poor performances in engineering during their freshman and sophomore years.

**Students by GPR Range  
(Cumulative GPR as of the beginning of semester)**

Semester_Year	Real Major	Classification Level	GPR Range (Beginning of Semester)	Student Headcount	% of Total	Cumulative Headcount	Cumulative %
Spring 2009	ECON	Undergraduate	3.75-4.00	17	4.59%	17	5%
			3.50-3.74	23	6.22%	40	11%
			3.00-3.49	78	21.08%	118	32%
			2.50-2.99	135	36.49%	253	68%
			2.00-2.49	87	23.51%	340	92%
			0.01-1.99	15	4.05%	355	96%
			0 or unknown	15	4.05%	370	100%
<b>Summary</b>				<b>370</b>	<b>100.00%</b>	-	-

*Provided by Office of Institutional Studies and Planning, Texas A&M University, Jun 15, 2009*

**Undergraduate Course Instruction**

Table 11 shows the distribution of SCH taught across faculty and graduate student instructors for the Spring 2009. The department meets the majority of the service course demands with Lecturers. About two-thirds of the Principles students and one-half of the 300-level students (that includes Econ 311, 322, and 323) are taught by Lecturers. Most of the regular faculty SCH are in sections taught by one Full Professor, John Allen, who has chosen to specialize in undergraduate teaching (and is the recipient of a College Teaching Award). Graduate Teaching Assistants (GATs) generate only about 8% of the SCH in 202 and 203, and their classes are relatively small (30-60 students). Some of the more seasoned and proven graduate students teach sections of intermediate microeconomic theory (about 15% of the 300-level SCH).

**Table 11: Semester Credit Hours Taught by Faculty Rank for Spring 2009  
(Excludes Required Physical Education and Professional Courses)**

College Of Liberal Arts  
Department Of Economics (ECON)

Rank (1)	Undergraduate				Total	Graduate			Grand Total
	1XX	2XX	3XX	4XX		MS	PHD	Total	
Professor	0	1,308	315	739	2,362	215	402	617	2,979
% of Level	0.0	20.5	14.0	37.6	22.3	76.0	69.0	71.2	26.0
% of Rank	0.0	43.9	10.6	24.8	79.3	7.2	13.5	20.7	100.0
Assoc. Professor	0	0	0	375	375	3	103	106	481
% of Level	0.0	0.0	0.0	19.1	3.5	1.1	17.7	12.2	4.2
% of Rank	0.0	0.0	0.0	78.0	78.0	0.6	21.4	22.0	100.0
Asst. Professor	0	135	429	447	1,011	65	78	143	1,154
% of Level	0.0	2.1	19.1	22.7	9.5	23.0	13.4	16.5	10.1
% of Rank	0.0	11.7	37.2	38.7	87.6	5.6	6.8	12.4	100.0
<b>Subtotal</b>	<b>0</b>	<b>1,443</b>	<b>744</b>	<b>1,561</b>	<b>3,748</b>	<b>283</b>	<b>583</b>	<b>866</b>	<b>4,614</b>
% of Level	0.0	22.6	33.2	79.4	35.4	100.0	100.0	100.0	40.3
% of Rank	0.0	31.3	16.1	33.8	81.2	6.1	12.6	18.8	100.0
Lecturer	0	3,429	771	66	4,266	0	0	0	4,266
% of Level	0.0	53.7	34.4	3.4	40.3	0.0	0.0	0.0	37.2
% of Rank	0.0	80.4	18.1	1.5	100.0	0.0	0.0	0.0	100.0
Asst. Lecturer	0	993	0	132	1,125	0	0	0	1,125
% of Level	0.0	15.5	0.0	6.7	10.6	0.0	0.0	0.0	9.8
% of Rank	0.0	88.3	0.0	11.7	100.0	0.0	0.0	0.0	100.0
Visiting	0	0	369	204	573	0	0	0	573
% of Level	0.0	0.0	16.4	10.4	5.4	0.0	0.0	0.0	5.0
% of Rank	0.0	0.0	64.4	35.6	100.0	0.0	0.0	0.0	100.0
<b>Subtotal</b>	<b>0</b>	<b>4,422</b>	<b>1,140</b>	<b>402</b>	<b>5,964</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,964</b>
% of Level	0.0	69.2	50.8	20.4	56.3	0.0	0.0	0.0	52.0
% of Rank	0.0	74.1	19.1	6.7	100.0	0.0	0.0	0.0	100.0
GATs - Lecture	0	522	360	0	882	0	0	0	882
% of Level	0.0	8.2	16.0	0.0	8.3	0.0	0.0	0.0	7.7
% of Rank	0.0	59.2	40.8	0.0	100.0	0.0	0.0	0.0	100.0
GATs - Other	0	0	0	3	3	0	0	0	3
% of Level	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
% of Rank	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
<b>Subtotal</b>	<b>0</b>	<b>522</b>	<b>360</b>	<b>3</b>	<b>885</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>885</b>
% of Level	0.0	8.2	16.0	0.2	8.4	0.0	0.0	0.0	7.7
% of Rank	0.0	59.0	40.7	0.3	100.0	0.0	0.0	0.0	100.0
<b>Total</b>	<b>0</b>	<b>6,387</b>	<b>2,244</b>	<b>1,966</b>	<b>10,597</b>	<b>283</b>	<b>583</b>	<b>866</b>	<b>11,463</b>

(1) Professor, Assoc. Professor, Asst. Professor and Instructor faculty ranks include only Tenure/Tenure Track faculty.

\* Numbers are calculated in decimal, but displayed in rounded off format. Therefore, subtotals and totals may appear off.

*Prepared by Office of Institutional Studies and Planning, (April, 2, 2009).*

### **Economics BA and BS Programs**

Undergraduate majors may select either the Bachelor of Arts (BA) or Bachelor of Science (BS) degree option. At this time, over 90% of our majors pursue the BS degree option. The fundamental distinctions between these two programs are found in the quantitative and foreign language requirements. Both BA and BS degree recipients must satisfy the identical core curriculum requirements. The 14-credit hour requirement of modern language for the BA major is the primary distinction. Language requirements for the BS major can be satisfied by two years of foreign language taken in high school.

The BS program requires an additional accounting course, a computer course, and the introductory econometrics course. Typically, it is the BS student who will pursue the Business Economics Certificate (BEC), given the two course econometrics requirements of the BEC.

Majors pursuing the BA degree option typically minor in humanities, whereas students pursuing the BS degree option typically minor in business and/or mathematics.

Students choosing to double-major usually choose Political Science, International Studies, or Mathematics as their second major.

### **Course Offerings**

The undergraduate course inventory for the Department is listed in Appendix P. Core courses include Principles, Intermediate Micro and Macro Theory, Economic Development, and Econometrics. All of the standard field courses—labor, public, industrial organization, international, and development— are also available. A variety of additional elective courses are available, and the number of these alternatives has continued to expand. Recent additions include the Economics of Race and Gender course mentioned above, Financial Economics, Forecasting, Personnel Economics, Economics of Decision-Making Strategy, and Environmental Economics.

### **Writing-Intensive (W) Courses**

Beginning with students entering Texas A&M University under the 2007-2008 catalog, all undergraduates were required to take at least two writing-intensive courses in their major. The department responded to this increased emphasis on writing by developing a number of such courses. The department currently offers 7 writing-intensive courses, Econ 312, 320, 426, 436, 440, 449 and 465. At least four are offered each semester and all W courses are available each academic year to meet this core curriculum requirement. This broad offering of W courses enables students to hone their writing skills before they begin to interview for jobs. Each W course is restricted to 24 or fewer students.

### **Honors Courses**

The minimum GPR requirement to enroll in honors courses is a cumulative average of 3.5. First-semester freshmen enrolling in honors classes must have graduated in the top 10% of their high school class and present a composite score of at least 1250 on the SAT (critical reading plus math

with at least 570 on each), 28 on the ACT composite (with a minimum of 27 English and 27 Math), or be a National Merit Finalist, National Achievement Finalist, or National Hispanic Scholar. First-semester transfer students are considered for honors classes on an individual basis. Honors courses are offered each semester or academic year (excluding summer terms). The department offers honors sections of Micro and Macro Principles (Econ 202 and 203) each Fall and Spring, and offers honors sections of Intermediate Micro and Macro (Econ 323 and 410) at least once each academic year.

### **Economics Research Laboratory (ERL)**

The ERL offers a distinctive feature to the undergraduate learning experience at Texas A&M. Participating in classroom experiments engages students and is a useful way to motivate inquiry-based learning. Having students see both sides of strategic interactions helps them understand theoretical concepts and discover behavioral regularities in search of an explanation. Furthermore, class discussions during or after experiments intensifies the learning experience. The department has made a major investment in classroom experiments including building a teaching platform to allow teachers to lead discussions of the experimental results more effectively and adding a symposium to review data and present other material. This commitment has resulted in new courses using the experimental teaching method, as well as integration of experimental sessions into several existing courses.

Courses frequently using the ERL include Econ 440 (Experimental Economics), 449 (Economics of Decision-Making Strategy), and 459 (Game Theory) as part of the regular instruction in these courses. Honors sections of micro/macro principles (Econ 202 and 203) and other advanced classes (Econ 425) also include laboratory sessions. The ERL currently has 44 seats and it can easily be expanded to accommodate 72 students, which is larger than the largest classroom in the Allen Building (Room 1002). (This is based on assigning two students to each subject station, which is good practice in a classroom experiment.)

### **Business Economics Certificate Curriculum (offered since 2001)**

The Business Economics Certificate (BEC) is an innovative program designed to prepare students for successful careers in a rapidly changing economic environment. The certificate combines an Economics major in the College of Liberal Arts with a Business minor in the Lowry Mays College of Business, integrating the skills taught in business courses with the fundamentals of economics.

The BEC builds on important principles taught in microeconomics, macroeconomics, and statistics. and provides the student with the knowledge, breadth and flexibility to compete for positions in the business and financial sector. One required course for the BEC, Economic Forecasting (Ecmt 475) builds upon the foundation of Ecmt 463, the required prerequisite. Two elective courses in applied economics permit BEC students to develop knowledge in such areas as financial economics, regulatory policy, strategic behavior, and personnel economics. Combined with the business foundations courses in the Mays Business School, the BEC curriculum prepares students for success after graduation.

Upon completing the certificate requirements, students will be awarded a Bachelor of Science degree in Economics, as well as the Business Economics Certificate (BEC) and a minor in Business. This certificate will not be recorded on the student's official transcript, but can be included in materials presented to potential employers, organizations or other individuals. Graduates of the program will be supported by Liberal Arts Career Services, which provides career counseling and arranges interviews with prospective employers.

The BEC began in the 2001 Fall semester. Certification may be obtained at the end of any semester upon completion of all degree and BEC requirements.

For academic year 2006-2007, 34 majors were awarded the BEC. For academic year 2007-2008, 31 majors received the BEC, and 15 received the BEC in the Fall semester 2008.

#### **Five-Year Joint Degree Programs (offered since 2008)**

The Economics Department, in conjunction with the Bush School of Government and Public Service, offers a joint degree program that enables students to receive both their economics undergraduate degree and a Master of Public Service and Administration (MPSA) graduate degree or a Master of International Affairs (MIA) graduate degree in five years. Students admitted into this program will be enrolled in Bush School graduate courses with an undergraduate classification for the Fall semester of their fourth year and will be reclassified as degree seeking master's degree students upon completing 108 credit hours, typically in the following semester. These credit hours must include all specific course prerequisites either for a BA or BS degree in economics, as well as the courses required by the College of Liberal Arts and

by Texas A&M University for an undergraduate degree. Students are required to complete the same two-year, 48 hour curriculum as other students admitted to the Bush School's MPSA or MPIA program.

These joint-degree programs offer valuable options leading to a 5-year professional degree. The programs began in fall 2008. The targeted enrollment for the program is two to three students per year. Two students enrolled in AY 2008-09, and one student has been accepted into the MIA program for the AY 2009-10.

### **Economics Society**

The Economics Society is a noteworthy strength in the undergraduate program. It is a voluntary, student-led group of undergraduates interested in economics that organizes roughly 6-8 events each semester. These events vary in organizational format. Some are panel discussions on various topics of current or long-term economic interest, and provide a forum for Texas A&M faculty and experts from the community to meet with our students. Others are of a more informal nature and include social events. Members of the Economics Society also volunteer their time for community-based charity events. A list of events organized by the Economics Society during the Spring Semester, 2009, is in Appendix Q. Professors Brit Grosskopf and Steve Puller were faculty advisors to the Economics Society during academic year 2008-2009. The Economics Society had 66 enthusiastic members as of the Spring term, 2009.

The Economics Society is also a valuable network for economics graduates seeking job interviews. Previous graduates were instrumental in using this network to promote interviews for more recent graduates at firms such as Fidelity Investments, Ameriprise Financial, Northwestern Mutual Insurance, and AXA Advisors. Our faculty and students view the Economics Society as an exceedingly valuable extracurricular asset in our undergraduate program.

### **Job Placement**

Our undergraduates have enjoyed strong success in finding jobs. Their recent successes continue a long tradition that Texas A&M University economics majors learn new responsibilities quickly and thoroughly. Large corporations regularly recruit economics majors near the conclusions of the Fall and Spring semesters. The Texas A&M University Career Center provides detailed information concerning companies that hire our graduates. The fact that these companies return

year after year to Texas A&M University to recruit economics majors speaks well for our graduates.

A sample of companies hiring economics majors between 2006 and 2008 include:

KPMG	Cisco Systems
Northwestern Mutual Financial Networks	DELL
Walgreens	FedEx
Williams Companies	Lambert Tax Consultants
Frontera Resources	Liberty Mutual
Ernst and Young	Smith International
Amegy Bank	Ameriprise Financial
Alliantgroup	Chevron
Bank of Scotland	Deloitte and Touche
AXA Advisors	Kellogg Brown and Root
Fidelity Investments	Tandem Logistics
ING Financial	Sewell Automotive
JC Penney	Texas Instruments
John Hancock	UCS/Reynolds and Reynolds
National Oil Well Varco	Wealth Design Group
Progressive Auto Insurance	Fluor
Quorum Business Solutions	Janus Capital Group
Raytheon	Schlumberger
Samsung Engineering	Wells Fargo Bank
Suez Energy	Best Buy
Tradition Energy	Edward Jones Investments
Capital One Financial	Marathon Oil
Dynegy	Wisembaker Builders
Target	Aflac
Academy Sports and Outdoors	British Petroleum
American Airlines	Conoco Phillips
Brazos Valley Bank	Encana

### **Undergraduate Scholarship Opportunities**

The Economics Department administers two scholarship programs for undergraduate majors. The Jacqueline Browning Memorial Scholarship is open to majors with at least 3.50 GPR who have completed at least two honors economics courses. The Neal Hahn Scholarship is open to junior and senior majors with at least a 3.25 GPR, who plan to pursue graduate studies in economics. Both scholarships have been generously endowed.

### **Computer Resources**

The department has 37 computers conveniently located on the third floor of the Allen Building. They are equipped with a range of econometrics/statistics programs including STATA, E-Views, SAS, GAUSS, MATLAB, Scientific Workplace, and others.

The computer laboratories are available to undergraduates during university business hours of 8:00 am to 5:00 pm.

Sections of Ecmt 463 are restricted to a maximum of 24 students to enable computer lab instruction for the entire class during regularly scheduled class time.

### **Advising**

The department offers centralized advising services to undergraduate students. In the Fall 2009, there will be two principal departmental advisors available. Professor Richard Anderson brings almost 20 years of undergraduate advising experience at Texas A&M to the table when he counsels our undergrads. He is also a recipient of a competitive College teaching award. Sarah Ura begins her second year with us as a professional undergraduate student advisor.

### **Assessment**

The department has recently developed an assessment structure that identifies key learning objectives for our student majors coming through our BA/BS programs. Elements of the assessment structure are outlined in materials found in Appendix A. The first round of assessment outcomes with respect to the three program objectives--understanding of fundamental economic concepts, an ability effectively to communicate those concepts, and a working knowledge of foundational analytic tools--is provided in Table 12 below. The results are very encouraging, with 84% or more of our students either meeting or exceeding department expectations across the three program objectives.

**Table 12: Assessment Results for BA/BS Degree Programs 2008-2009**

Program Objective 1	SCORE				COURSE
	1	2	3	TTL	
Student will be able to demonstrate understanding of micro/macro economic principles, price formation, opportunity costs, market structures, fiscal and monetary policy.	2	4	5	11	micro/macro ECON 323-502 ECON 323-504 ECON 323-505 ECON 410-501 ECON 410-502 ECON 410-503 ECON 410-504
	1	5	8	14	
	0	1	1	2	
	4	4	26	34	
	1	11	7	19	
	9	8	5	22	
	1	5	5	11	
	<b>18</b>	<b>38</b>	<b>57</b>	<b>113</b>	
Scoring Distribution:	15.93% 33.63% 50.44%				
	SCORE				
Program Objective 2	1	2	3	TTL	COURSE
Student will be able to articulate fundamental economic concepts in writing, assessing such economic issues and policies as resource allocation, incentives and strategic behavior, inflation and unemployment.	1	6	8	15	W-courses ECON 312-900 ECON 320-900 ECON 426-900 ECON 436-900 ECON 440-900
	2	5	2	9	
	1	8	10	19	
	1	5	13	19	
	4	6	11	21	
	<b>9</b>	<b>30</b>	<b>44</b>	<b>83</b>	
Scoring Distribution:	10.84% 36.14% 53.02%				
	SCORE				
Program Objective 3	1	2	3	TTL	COURSE
Student will be able to utilize statistical and computer techniques to analyze economic data by using econometric reasoning and programming.	3	13	3	19	ecmt ECMT 463-501 ECMT 463-502 ECMT 463-503 ECMT 463-504
	2	13	5	20	
	1	4	5	10	
	1	7	10	18	
	<b>7</b>	<b>37</b>	<b>23</b>	<b>67</b>	
Scoring Distribution:	10.45% 55.22% 34.33%				

**Scoring:**

- 3 - Exceeds departmental expectations.
- 2 - Meets departmental expectations.
- 1 - Fails to meet meet departmental expectations.

See Assessment Rubric for explicit expectations for each program objective.

**Undergraduate Program Strengths**

- The Economics Research Laboratory (ERL) affords exceptional advantages by enabling students to apply practical business strategies in a wide range of settings. Several courses make intensive use of the ERL. Experimental Economics (Econ 440) is taught each semester by Professor Brit Grosskopf. Economics of Decision-Making Strategy (Econ 449) is also taught every semester. Games and Economic Behavior (Econ 459) is taught each semester either by Professor Rajiv Sarin or by Professor John Van Huyck. The ERL enables students to learn business behavior and strategies from scholars conducting research at the frontiers of these fields.

- The Business Certificate Program offers a well-structured track preparation for students interested in pursuing a position in the financial sector. It might make sense for the department to identify other tracks for our majors. Consistent with advice on the structuring of the economics major in an article in the May 2009 *American Economic Review: Papers and Proceedings* by Colander and McGoldrick, we might consider establishing an economic science track/certificate option and an economic policy track/certificate option in addition to the BCP.
- Upper-division field courses are taught almost exclusively by faculty actively engaged in research —79% of the 400-level SCH in the Spring semester of 2009 were taught by tenured or tenure track faculty, compared to a University average of 60% for the same measure. Faculty teaching assignments are geared to their research interests. That economics majors are able to study with faculty actively engaged in research is a substantial strength.
- For Spring 2009, the average size of upper-division courses is 31 students. This creates a reasonable environment for faculty/student interaction conducive to the development of good critical thinking and rational argumentation skills for our students.
- Course teaching evaluations for upper-division economics courses are strong (Appendix E). Although comparisons of simple unconditional mean scores across academic units are only weakly informative, our departmental averages stack up well against the College averages (4.41 for overall mean, 4.34 for good instructor mean, 4.42 for good course mean).

These laudatory evaluations are earned in an environment of high grading standards (see grade distributions for courses in economics in Table 13). The department GPR across all undergraduate sections is 2.61 for Fall 2008. This GPR is clearly the lowest among the 12 departments in the College of Liberal Arts (History is the next lowest at 2.71), and sits well below the College of Liberal Arts undergraduate average GPR of around 2.95.

**Table 13: Grade Distribution: Undergraduate Economics Courses (Fall 2008)**

Grade	Number	Percentage
A	772	22.5%
B	1241	36.2%
C	911	26.6%
D	335	9.7%
F	169	4.9%

*Source: Office of Registrar, Texas A&M University, Show Report for Spring 2009*

- Undergraduates are provided strong opportunities to prepare for post-graduate study. Introduction to Econometrics (Ecmt 463), Economic Forecasting (Ecmt 475), Introduction to Mathematical Economics (Ecmt 460), Games and Economic Behavior (Econ 459), and Economics of Decision-Making Strategy (Econ 449) are offered Fall and Spring semesters. Such preparation in econometrics, mathematical economics, and economic theory provides valuable foundations for graduate program work in economics, in a business school, in a school of public policy, or even law school.
- As noted earlier, economics graduates succeed well in acquiring jobs. Their success is attributable in part to their abilities to analyze real-world problems encountered by firms in the private sector. Initial job placements are prominent in banking, finance, insurance, and the energy sector.
- Apart from Money and Banking (Econ 311), all upper-division courses are taught in the Allen Building, which houses the department's faculty and administrative offices, as well as the ERL and the computer laboratory. We hope that this geographic clustering helps to create a sense of community among our economics majors.
- Beginning with academic year 2007-2008, majors are required to take at least two upper-division courses with a substantial writing requirement. The research topics are usually chosen by the students then guided by experienced faculty.
- The computer staff, supervised by William Newnum, provides exceptional technical support. The computer staff expertly maintains the departmental computer laboratory with up-to-date versions of statistical and econometric programs.

### **Matters of Concern in the Undergraduate Program**

- We have fewer majors than is the case at several peer public institutions with similar sized undergraduate populations, such as University of Texas (1349 majors), Penn State (886 majors), and Ohio State (561 majors). Cross-university comparisons of departmental major counts have to be approached with some caution (e.g., there can exist significant differences in business school and agricultural economics environments), but there is little doubt that our current majors count is low relative to discipline norms. The Undergraduate Instruction Committee (UIC) in April 2009 considered ways by which the department could increase our majors. The committee agreed that growth is desirable, but would be preferable if we could attract higher quality students. The committee also agreed the Department should aggressively recruit good students.

- We believe that the economics major is undervalued by students at Texas A&M. Our hypothesis is that this is at least partially attributable to incomplete information as to the value of an economics degree, in general, and to the quality of our undergraduate economics program at A&M, in particular. We intend to explore several avenues to address the information gap.
- Since very few students arrive at A&M with an economics major in mind, our key point of contact is the large Principles audience. Principles instructors should take the opportunity to highlight the advantages of economics as a potential major. The UIC recommends that we formally invite all students who earned an A in Economics 202 or 203 to meet with our advisors to learn about the benefits of majoring in economics.
- Presentation of evidence on specific benefits of an economics degree would be useful. As one example of the kind of comparative salary information that might be used, consider the recent MSN.careers report on average starting salaries for inexperienced bachelor's degree recipients by curriculum, Summer 2007:

<b>Baccalaureate Curriculum</b>	<b>Salary</b>
Chemical Engineering	\$ 59,361
Electrical/electronics Engineering	\$ 55,292
Computer Science	\$ 53,396
Civil Engineering	\$ 48,509
Economics	\$ 48,483
Finance	\$ 47,239
Accounting	\$ 46,718
Business Administration/Management	\$ 43,701
Chemistry	\$ 41,506
Marketing	\$ 40,161
Biological/Life Sciences	\$ 34,953
History	\$ 33,768
Sociology	\$ 32,033
Psychology	\$ 31,631

- Collecting Texas A&M specific information concerning initial employment and salaries of our undergraduate majors would be helpful here as well. The Career Center salary information is sparse, so we would have to design our own survey.
- A handsome, professionally produced brochure about economics as a major would help this recruiting effort. Some additional work to enhance the quality of the undergraduate program information on the department website could also help here.

- We should try to improve our networking capabilities and expand the interview and internship opportunities for our majors. We compete with the business school for talented students, and the business school actively arranges interviews and internships for their majors.
- We should establish a departmental honors program. Given the relatively small number of economics majors with cumulative GPRs as high as 3.5, we will need to promote the honors option and generate a high take-up rate among the eligible set of students. Creating a departmental honors program will require an expansion of departmental honors course offerings to include honors sections of upper division elective courses. The availability of a departmental honors option will also, presumably, increase the attractiveness of our major to top-end undergraduate scholars.
- The department currently deals with the majority of the large demand for Principles (Econ 202 and 203) by (a) offering 3 or 4 large sections of each course, taught in lecture halls on the main campus, with up to 240 students in each section (b) putting Lecturers and one teaching specialist Full Professor (John Allen) in charge of these sections (c) testing students in these sections by multiple-choice examinations. Our core set of Lecturers and John Allen all receive superb evaluations from the students in the large lecture sections. Large economics principles classes are, of course, commonplace in large state universities. Whether this is the best delivery system, given relevant departmental objectives and constraints, is worth revisiting.
- The Undergraduate Instruction Committee (UIC) views Microeconomic Theory (Econ 323) as the most important analytical foundation for upper-division courses such as Public Finance (Econ 412), Labor Economics (Econ 418), Industrial Organization (Econ 425), Economics of Antitrust and Regulation (Econ 426), Economics of Resource Scarcity (Econ 435), International Trade (Econ 452), and Games and Economic Behavior (Econ 459). This foundation is essential for students who seek to major or minor in economics. But many students from other departments enroll in Economics 323 because it is required in their degree plans. Many do lackluster work.
- Each Fall and Spring term the department offers five sections of Econ 323. As matters stand, students who are not majors or minors in economics may enroll in any section of Econ 323 they choose. The UIC recommends that two sections of this course be reserved for students who have declared their major or minor in economics. These two sections would be taught with greater analytical rigor than the remaining three sections. This arrangement makes sense because majors and minors could be expected to perform, on average, at a higher analytical

level and thereby gain a stronger foundation for their subsequent upper-division courses. The two sections reserved for majors or minors in economics would be taught by well-seasoned faculty members who have demonstrated superior classroom skills.

- Even though, as noted earlier, we offer a strong set of courses that would prepare a student well for graduate school, only a small percentage of our majors appear to pursue the grad school option. For AY 2008-09, of the 90 econ majors who responded to the TAMU Career Center survey, only 10% indicated that they were going on to graduate school. None of those students reported that they intended to pursue a PhD in economics, and six were planning to pursue a Masters degree in economics. Although we have no comparative figures from relevant peers, these reported grad school, particularly grad school in economics, route numbers seem low.
- There is considerable interest among both our student majors and our faculty in developing opportunities to study abroad. We intend to work with the Study Abroad Office to implement instructor-led and/or departmental-level study abroad experiences for our students and faculty. Likely areas for such linkages include universities in China, Ireland, Spain, Mexico, and South America where our faculty have established professional relationships.

The department should develop a strategy for identification and/or development of Inquiry rich/Research-based (I) courses consistent with the objectives of the university Quality Enhancement Plan. The College of Liberal Arts may by 2010 require that Liberal Arts majors take at least one (I) course in order to graduate. Several of our existing courses, e.g. Experimental Economics, involve a serious student research component and thus may serve as candidates for I-course designation.

## **VI. Summary**

Since the last program review (1999), the Department of Economics has lost several nationally prominent senior faculty and has had several changes in leadership. The Department is now in a rebuilding phase and is searching for a new department head. Like most departments, Economics would benefit from new senior hires and better financial packages for doctoral students, but the Department's overall financial situation is relatively good, considering the current economic environment. In 2009 the Department hired five new assistant professors and recruited a strong cohort of doctoral students. As noted in the report, the Department plans to increase its efforts to recruit excellent and diverse graduate and undergraduate students, and to enhance the undergraduate experience. The faculty are in agreement that Econometrics should continue to be a department research strength, and that future hires should add to the research strengths in Applied Economics. The Department welcomes the assessment and advice of the external reviewers as it charts its course for the next five years.

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