Table of Contents

Introduction and Overview

The University of Washington Economics Department has a long tradition of excellence in economics research and instruction. Thirty years ago, the department was nationally known for its emphasis on the role of property rights and institutions in the economy. The Nobel laureate Douglass North did his path-breaking work on the role of institutions in US economic development here in the 1970s. Thanks to the work of Professor Gardner Brown and others, the department also emerged at the forefront of advances in the economic analysis of environmental quality and natural resources. With the arrival of Professor Charles Nelson in the 1980s, the Department established national recognition in the application of time series econometrics to macroeconomic phenomena, a field that remains a key departmental strength. In the 1990s, the work of Professors Stephen Turnovsky and Charles Engel gave the department a high national profile in the field of international finance and macroeconomics, another current departmental strength. In the 1990s, research by Professor Shelly Lundberg and others established our national recognition in the field of family and labor economics.

In the mid-1990s, our department was in the top twenty-five departments of the country according to the National Research council (NRC) study, and in the top ten of public universities. Recent studies of department rankings have shown significant slippage, with the Department currently ranking no higher than 30th. The 1999 review concluded that the Department, despite its effective instructional programs, was "at risk", and lay at a crossroads in terms of the national rankings. The main conclusion of this self-study is that the department, despite internal improvements, still lies at the crossroads. However, it faces an historic opportunity to re-invent itself. In the next ten years, it is probable that more than half of the current faculty will depart. Given the faculty demographics, the need for department faculty renewal is unavoidable. But, more importantly, with the support of the College, bold planning, and successful recruitment of junior and senior faculty, the Economics department can renew itself on a path that will restore or even surpass our former stature. It is this opportunity that underlies the planning strategies of our department, and constitutes a major theme of this study.

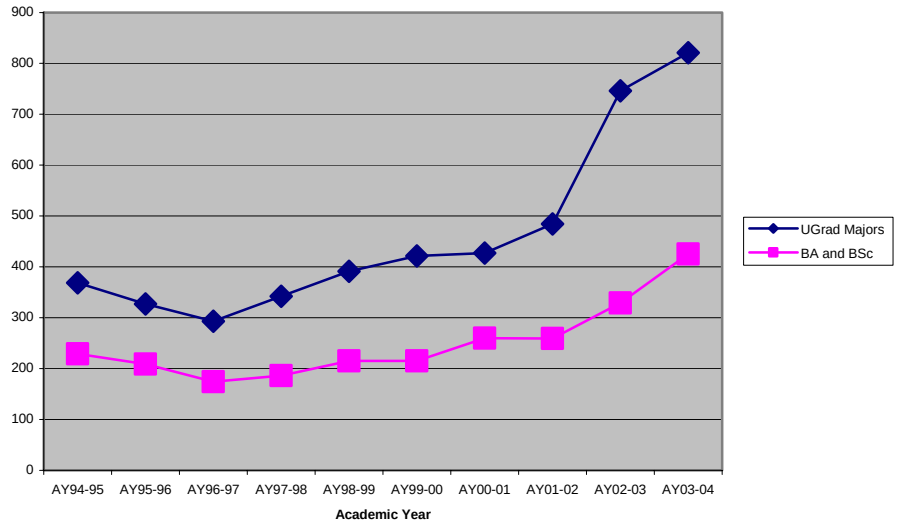
A Brief Statistical Look at our Department

As of Academic Year (AY) 2004-05, the Economics department has 27 permanent faculty members, plus a shared position with Center for Statistics and the Social Sciences (CSSS) and the Statistics department. In AY 2003-04, we also had one Affiliate Professor, two Adjunct Associate Professors, and three Adjunct Professors. Counting the shared position with Statistics, twenty-five of our regular faculty members are tenure track, of which 12 are tenured Full Professors, 9 are tenured Associate Professors, and 4 are Assistant Professors. At least half of the tenured faculty members are over age 55. The department also has 3 senior lecturers, who serve on five-year renewable contracts.

Over the past five years, the department has had an average of 580 majors per year (three-quarter average for the regular academic year) and 96 FTE graduate students. We awarded an average of 300 Bachelor degrees, 17 Master's degrees and 13 Ph.D. degrees per year.

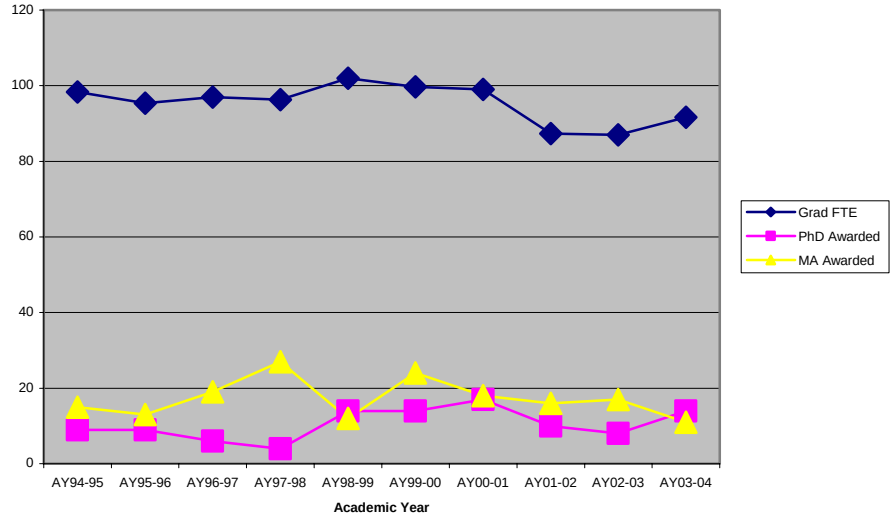
The size of our undergraduate program has grown dramatically over the past five years. Both the number of majors and the number of bachelor's degrees awarded each year have doubled since the late 1990s, reaching 821 majors and 425 Bachelors degrees in AY 2003-04.

Economics Undergraduate Majors and Bachelor Degrees Awarded

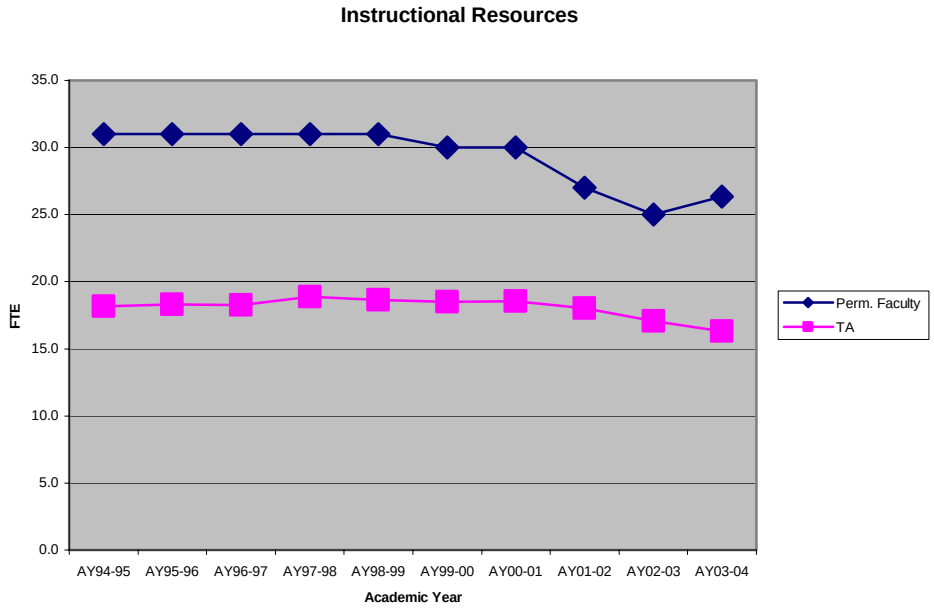


Our graduate program has remained roughly constant in size, although the number of graduate FTE declined after 2000 because of smaller admissions mandated by the graduate school.

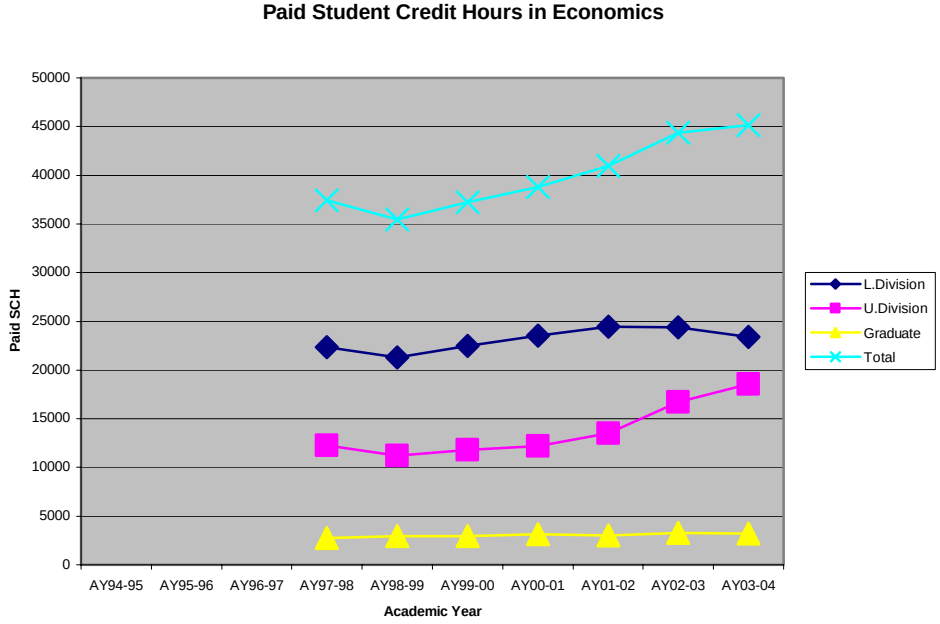
Graduate Majors and PhD, MA Degrees Awarded



Our permanent instructional resources (tenure track faculty and senior lecturers plus permanent graduate TAs) have declined from budget cuts at the same time that our enrollments increased.



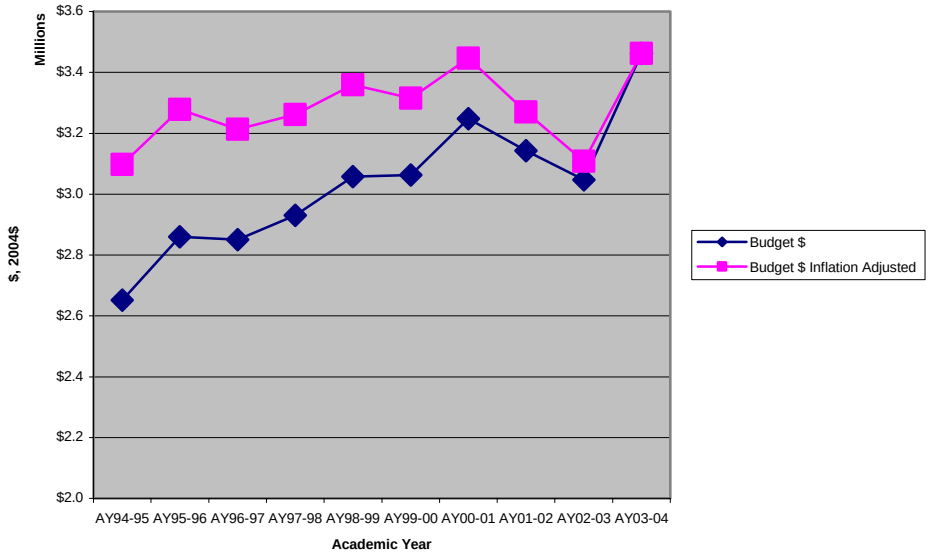
Paid Student Credit Hours of instruction have also increased, especially in the undergraduate upper division, but the total rise is smaller percentage-wise than the rise in the number of majors. This reflects the fact that we have had to limit enrollment by non-Economics students in upper division classes to make room for the burgeoning number of majors. The percentage of upper division SCH accounted for by economics majors rose from 50% in 1997-98 to over 80% in 2003-04.



Over the same period, paid SCH per permanent faculty FTE increased from 1200 to over 1700, one of the highest in the College.

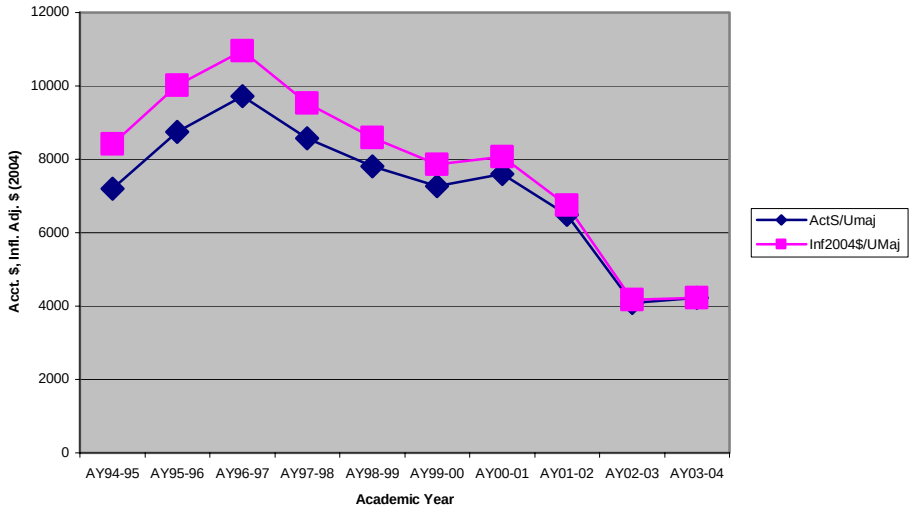
The department budget increased from $2.7 million ten years ago to nearly $3.5 million in 2003-04. Measured in inflation-adjusted dollars, the department budget was the same in AY02-03 as in AY94-95. The increase in 03-04 represents new junior faculty, a 3.7% unit adjustment, and (mostly) temporary funds provided by the Dean's office to mitigate the enrollment crunch In Economics.

Economics Department Budget, Current and Inflation Adjusted Dollars



Budget dollars and inflation adjusted dollars per Economics major have decreased sharply since 1996-97. Budget dollars per SCH have also declined.

Accounting and Inflation-Adjusted (2004$) Department Budget Dollars Per Economics Undergraduate Major



Section A: General Self Evaluation

In AY 2000-01, following a less-than-satisfactory departmental review in 1999-00, the Economics department undertook a searching self-examination. We reached a consensus on a vision for our department that includes objectives and strategies that will, we hope, improve the functioning of the department in the short-run and, with the timely investment of resources, reverse the department's slide in the national rankings and set it on a trajectory that will eventually lead it to supersede the rankings it has enjoyed in the past. This plan is summarized in the Strategic Plan of the Department of Economics, 2001 (attached as Appendix F). The department is part-way into its plan for recovery, but still has a long way to go. Many of the short-run changes have had to do with improving governance, accountability, the climate within the department, and perceived problems with our graduate program. This section of the self-study attempts to summarize where we are now, what we do, and how we hope to develop over the next ten years.

Department Strengths

The Department of Economics draws on a number of strengths, of which five are particularly noteworthy.

1) The excellence and efficiency of our undergraduate instructional program.

In AY 2003-04, our undergraduate program attracted more than 820 majors (three-quarter average) and the department has averaged 580 undergraduate majors a year over the past five years. Our program has historically attracted students who are among the best in the College. We maintain an excellent departmental honors program that attracts about twenty students a year, most of whom go on to graduate school. All Economics faculty members, including the most senior and distinguished of them, teach undergraduate courses in addition to their research and graduate instruction and supervision duties.

Students are attracted to our undergraduate major not as a second choice to other majors such as business, but as their first choice because of the reputation of our program and the quality of our undergraduate instruction and advising staff. In outgoing senior surveys, over 90% of respondents said that they chose Economics as a major for such reasons, and less than 5% said they chose Economics because "they could not get into the Business School." We are also remarkably successful, given our size, at making our undergraduate students feel part of the departmental community while they are here, and after they leave. We have an excellent and approachable advising staff, and faculty members provide support and encouragement to the Economics Undergraduate Board, a group of committed Economics majors who undertake a number of activities in support of the program including tutoring services, publication of the quarterly *Economizer*, and sponsoring several career seminars each year, often featuring successful Economics alum. Last year, we supported the formation of two new organizations toward these ends—the Society for Economics Undergraduate

Students (SEUS) and the University of Washington Economics Alumni Organization (UWEAO).

2) The success of our graduate program in training our Ph.D. students to do good research and their subsequent career success.

Our graduate program has a long tradition of providing Ph.D. students with excellent training that prepares them well for successful academic and research careers. This reflects not only excellent instruction, but an exceptional record of faculty mentoring and working with graduate students on joint research. Several of our faculty members are routinely nominated each year for the outstanding faculty mentor award, and many undertake joint research and subsequently publish professional journal articles with our graduate students. These collaborations often continue after the students have graduated and taken up academic positions at other universities. Our program success is best illustrated in a survey in the journal *Economic Inquiry* (2000) which rated institutions by the publication success of their Ph.D. students. It ranked our department as 8th in the nation, immediately behind Harvard.

A recent listing of our Ph.D.s over the past five years (attached as Appendix E) indicates an excellent record of placement despite a lack-luster market for economists. Academic placements in the past five years include Wellesley College, Willamette University, University of York in the UK, McGill University in Canada, Lewis and Clark College, San Francisco State University, Florida International University, Ohio University, University of Idaho, Southern Illinois University, University of Georgia, Brigham Young University, University of Pittsburgh, University of Virginia, National Cheng Kung University in Taiwan, Konan University in Japan, and others. Our Ph.D. graduates also take up rewarding non-academic careers. Initial positions in government and quasi-government organizations in the past five years include Deputy Director of the Treasury, Ministry of Finance, Korea; Sr. Research Analyst, Polaris Research Institute in Taiwan; Economist, Food and Drug Administration; Economist, World Bank; Economist, IMF; Assistant Director, Ministry of Finance and Economy, Korea; Research Economist, Bureau of Labor Statistics, Economist, Central Bank of Iceland, and Economist, Board of Governors of the Federal Reserve Bank. Others took up business careers with private corporations such as Samsung, Caxton Corporation, Brown Brothers Harriman, J.P. Morgan, and Zynx Health Inc. Some of our Ph.D. graduates receive Post-doctoral fellowships. Recent examples are post-docs at the Yale Economic Growth Center, Harvard Kennedy School of Government, RAND Corporation, and the University of Michigan. From these post-docs, they proceed to successful careers. For instance, the Michigan post-doctoral student is now a professor at Claremont-McKenna and the Yale post-doctoral student is now at the World Bank.

3) Our Visiting Committee, our major donors, and beyond them a large and supportive Alumni.

The Economics Visiting Committee consists of 34 community supporters, most of whom are successful Economics Alumni. The Visiting Committee meets once

every quarter on campus to discuss department issues and hear presentations by department members, students, and distinguished visiting speakers. Smaller groups meet every month to plan department outreach activities, and some members serve on departmental committees. The Visiting Committee is instrumental to our success in external fund-raising. Many members also provide connections between the Department and its students to the business and local professional community. Visiting Committee members and other Alumni inform our current students about career choices and help them arrange productive internships. The Economics Visiting Committee has been singled out by the Dean of Arts and Sciences as a "model" for other College units.

Past fund-raising efforts have provided significant research support to faculty members, as well as other department activities. We presently have four occupied endowed professorships and two occupied term professorships (distinguished scholars). It should be noted in passing, that the Economics department "invented" the term professorship, which has now been adopted elsewhere in the College. Last year, the department received pledges for one new term professorship, a five year extension of an existing term professorship, and two new endowed professorships.

4) The dedication of the faculty and staff to our mission.

Department faculty and staff members are dedicated to the department's missions and goals, and are assiduous and enthusiastic in carrying out their responsibilities. All faculty members are willing to share in the governance and administration of the unit. The departmental staff members are, in our opinion, one the best—if not the best—in the College, and our advising staff is particularly excellent. Our instructional staff cares about the students, as demonstrated by its willingness to stretch class loads to the limit in recent years so as to accommodate the large and sudden increase in our enrollments. Most department members find the atmosphere in the department friendly, collegial and supportive. We have a broad consensus on our goals and the strategies needed to achieve them, even where there are differences of opinion about the details. Department meetings are well attended and productive.

5) We have several faculty members with high professional profiles who are able to attract excellent new faculty and graduate students.

These faculty members maintain high professional profiles and serve on editorial boards of the leading field journals and in other professional organizations that successfully connect us to the profession. For example, in the past five years, Economics faculty members hosted two major conferences of international importance—the 8th World Congress of the Econometrics Society in August 2000 and the 9th International Conference on Computing in Economics and Finance in July 2003. In addition, the Research Center for International Economics and the Center for Research of the Family have hosted several workshops and conferences on international trade and family economics respectively.

In addition to these five major assets, we have fields of research where our faculty members make a significant professional impact and provide our Department with a national reputation. The Department has significant research strength in the fields of Time Series Econometrics, Macroeconomics, Labor and Applied Microeconomics. Historically, the Department is also well-known for its research in the fields of Resource/Environmental Economics, Economic History, and Property Rights/Institutions. Economics faculty members have started three Research Centers—the Research Center for International Economics (RCIE), the Center for Research on the Family (CRF), and the Economic Policy Research Center (EPRC)—two of the Centers are well established and the other begins operations this year. These Centers serve to focus our efforts in certain research fields, and have the potential for increasing our ability to attract external grants.

Measuring Overall Performance

In the Economics discipline, and in our Department, performance in research and graduate instruction is typically measured by comparison to Economics departments at our peer institutions and performance in undergraduate instruction and departmental/institutional service is measured by comparison to other UW Arts and Science units, particularly those in the Social Sciences.

Specifically, in the Department of Economics we measure research and professional performance by major journal publication and citation records, attainment of external research grants, records of presentations and participation at conferences and workshops, and significant professional service on editorial boards, conference organizing committees, and the like. Instructional performance is determined by consistent distinguished teaching assessments by students and peers, nominations for teaching and mentoring awards, undertaking creative approaches for instruction and learning, initiating and participating in curriculum reforms, careful supervision of teaching assistants and management of large classes, and the dedicated mentoring of students. Performance in graduate research supervision is determined by the number and quality of the dissertations supervised, graduate student placement, and a record of joint research with graduate students and former graduate students. Performance in undergraduate research supervision is determined mainly by number of undergraduate research projects supervised. Service performance is measured by records of service on and contributions to program directorships, committees, advising boards and steering committees for the department, College and University.

Internally, we attempt to encourage instructional and service performance by ensuring accountability with respect to responsibilities and recognition for exceptional performance. The department has explicit criteria to determine so-called “basic merit”, and internal collegial assessment is used to assess extraordinary merit.

Where Do We Rank and Who Are Our Peers?

There are well known difficulties with all attempts to quantify and rank overall performance, given the many dimensions to the mission of an academic department. Nonetheless, it is useful to compare our overall performance to our peers using graduate program national rankings, and examine any changes in the these rankings. In the 1993 NRC study (http://books.nap.edu/html/researchdoc/appendix_p.html), the UW Economics graduate program was ranked 26 in overall quality (10 among public universities) in the US. As well known, national rankings can be "customized" by changing the weights applied to the various performance criteria. For example, placing the highest weights only on educational effectiveness, faculty quality, and publications and citations per faculty member, the UW Economics Department ranked 17 (7 among public universities) in the 1993 study. (The customized rankings are available at PHDs.org site at http://www.phds.org/rankings/.)

The 2000 NRC study does not rank the programs for the 28 institutions (including UW) it surveyed. However, according to a ranking by the National Association of Graduate Professional Students based on their "recommended practices", the UW department is tied for 21st place out of the 28. In the 2001 US News and World Report study, the department is tied for rank 31 (13 among the publics).

There are several recent studies that rank Economics departments based strictly on publications and citations by faculty weighted by journal quality and impact. In a 2002 study by Thomas Coupe of the Universite Libre de Bruxelles (http://student.ulb.ac.be/~tcoupe/updaterevealedperformances.pdf), the UW department is ranked 37 in the world in terms of publication impact, 32 among US universities, and 16 among US public institutions. Other publication/citation based studies have ranked us lower. Dusansky and Vernon (*Journal of Economic Perspectives*, 1998, p. 159) ranks us 36 in the nation, and 19 among public universities. The Kalaitziakis, Mamuneus and Stengos study (http://www.jedc.com/bin/eearank.pdf) ranks us even lower at 39 in the nation.

An interesting study by Collins, Cox and Stango in *Economics Inquiry* (2000, Vol. 38, p. 362) ranked Economics departments based on the subsequent publication success of their Ph.D. students graduating in the five year period 1987-1992. In this study, the UW department ranked 8 out of 50, just behind Harvard.

From this, we would conclude that at best our department probably ranks around 30 in the nation at the present time, and about 15 among the public research institutions. No doubt, this represents significant slippage since the 1993 NRC study. Given the departures since 1993 of highly productive senior faculty, such as Gardner Brown, Anil Deolalikar, Charles Engel, and Robert Pollak, with no new senior hiring to replace them, this should not be surprising. In terms of peers, this would put us in the approximate company of departments at public universities such as Pennsylvania State University, the University of Maryland and the University of California, Davis. Perhaps like these departments, we have

higher aspirations. Our goal is to be among the top twenty of US institutions and the top ten of US public research universities. To this end, our "role model" peers are departments such as the University of California, San Diego and Los Angeles, the University of Wisconsin, and the University of Michigan.

Departmental Challenges and Weaknesses

The Department has a number of weaknesses and faces significant challenges in certain areas. Among them:

1) We have an aging professoriate and a lower rate of turnover than many other departments.

Until recently, we have not had opportunities to revitalize our faculty. We have not recruited a senior faculty member since 1991, and were unable to recruit anyone at all for a four year period between 1998 and 2002. Until recently, we had a very small junior cohort. Since 1998, our permanent faculty complement has declined from 31 to 27 members at the same time that our enrollments have increased dramatically. Due to a relatively small mid-career cohort, we could have a department leadership gap in the future, as senior faculty members retire in the next five to ten years.

2) We have a smaller than desired core of research active faculty.

Among other things, this lack of breadth makes us vulnerable to a few key departures. There is a general sense that our faculty has been less successful at attaining external research grants than those in other social science departments, such as Sociology and Political Science and, presumably, our peer Economics departments. One consequence of this is that Economics graduate students at UW are more dependent on teaching assistantships for support than graduate students in other departments where research assistantships are more available.

3) Relative to other Economics departments, faculty salaries are low for all but the recent hires, and a predictable merit salary ladder does not exist at UW.

Last year, a small "unit adjustment" brought average faculty compensation up to 20% behind a peer benchmark equal to the 75th percentile of the HEC Board 24 institutions. In a recent appraisal by Professor Hamermesh (University of Texas) of the 2002-03 salaries of 338 full professors at 17 public research universities[1], the UW Economics department was dead-last—17 out of 17. The average UW full professor salary was 31% behind the average of the 17 institutions and the median UW full professor salary was 46% behind the median of the 17 institutions. In fact, even after the unit adjustment received by the UW department in 2003, the average salary for UW Professors would need to rise 12% in order to match that of the department ranking 16 in the survey.

[1] UC Berkeley, UCLA, UCSD, UFLA, UIL Champaign Urbana, UIA, UMD, UMI, MI State, UMN, UNC Chapel Hill, OH State, PA State, UTX Austin, UVA, UWA, UWI Madison.

Significant compression remains in our salary structure, even though a large part of the recent unit adjustment was used to address it. Some productive Associate Professors make less than the incoming Assistant Professors, which has a demoralizing effect on a key group of faculty members.

As important (perhaps more important) is the lack of a meaningful merit pool to reward superior performance and a salary ladder for successful career development. In recent years, salary increases at UW have been for 2% basic merit or nothing at all. The only meaningful way a productive faculty member can increase his or her salary is by obtaining an outside offer. In the past five years, six faculty members received outside offers—four were retained and two left the department. If faculty members do not want to bear the costs of searching for outside offers or are unable to obtain them, the incentive always exists for them to substitute consulting for scholarly research.

The salary situation is a significant impediment to increasing the national ranking of the UW Economics Department, because it is difficult to imagine a scenario for developing a highly-ranked department with a faculty that is compensated less than faculty at departments that rank much lower. All of this raises the question of whether the University of Washington can afford a ranking Economics Department, a question which we address later in this self-study.

Changes in the Economics Discipline

It is fair to say that there have been no major paradigmatic changes in Economics discipline over the past ten years, except perhaps for the rise of "behavioral economics" in which our department has not participated research-wise. There has been a continuing trend towards emphasis on empirical and computational economics. The discipline has always been a leader in applying statistical methods in the Social Sciences, but now more than ever research tends to be motivated by empirical facts, questions, and hypothesis testing, and less by modeling issues. This trend has been accelerated by the fall in computing costs, and the availability of large data sets (many of which are available on line along with other informational sources), and the availability and use of sophisticated statistical software. As a result, there is a greater need for all economists to be familiar with computing and estimating techniques. Also, more economists are applying economic methods to issues that cross disciplinary boundaries.

One consequence of these trends is a greater need for funding for research assistants. At the same time, one traditional source for research grants in Economics (NSF) has become less available and more concentrated on the top departments. Creative initiatives at finding new funding sources are desperately needed. There is a greater need for faculty to be more entrepreneurial and to develop better professional networks in order to get funding.

Other changes have been in the outlets for research dissemination. The top journals have become more selective and the time to publication has significantly

lengthened in Economics. Electronic working paper sites have become more important as the locus of current economics research with journals becoming the lagged locus of permanent record. However, publication in top print journals has remained the gold standard as a measure of research success. Within the journals, there has been an increase in the role of specialty field journals and perhaps a greater balkanization of economics research according to field. Paradoxically, some faculty are of the opinion that it has become harder to make professional impact through publications in journals so there is a greater need to connect to the profession through seminars and conferences.

The trend toward greater emphasis on using quantitative information in Economics has impacts on our instructional programs. There is greater use of informational technology in the classroom, greater need for the appropriate equipment, and a greater emphasis on participatory learning by our students. This poses significant challenges in our department which is already struggling with very large undergraduate class sizes, even at the fourth year level.

Different Perceptions between the Department and the College

Simply put, we aspire to be the best Economics department that we can be, and believe that in doing this we best serve the College and the institution. Differences between the Department and College, if they exist, are about how to accomplish this. We believe that the most effective way in an environment of limited resources is to strengthen our core and focus on a limited number of areas where we can maintain or develop national recognition. The College, perhaps for budget reasons, tends to prefer collaborative ventures and appointments that have many apparent spillovers to other units.

One source of this difference in expectations may lie in the nature of the Economics discipline and is not unique to UW. The existence of a commonly accepted disciplinary core is both a source of strength for Economics as a discipline, and a source for misunderstanding by our colleagues in other departments. (Other Social Sciences tend to be more diverse, or more fragmented, in their methodological approaches.) As a result, the UW Economics departments has been, and perhaps still is, perceived by the College and by our colleagues in other Social Science departments as narrow, resistant to change and cross-disciplinary research, or excessively self-absorbed. This was a major concern expressed in our 1999 Review. On the other hand, the department worries that an emphasis on collaborations, spillovers, trying to do too many different things, and innovation for innovation's sake, will divert energies away from the challenge of improving our national ranking in an environment where resources are already severely restricted.

Obviously, the issues are best resolved through improved communication and dialogue. The Economics department must better explain its goals and concerns to the College, and find ways of facilitating productive ventures with other units which, at the same time, strengthen the Economics core. One example is to strengthen our econometrics group in collaboration with the Center for Statistics

in the Social Sciences. We will also continue to strengthen our existing ties with other units in the College including the Jackson School and the other Social Sciences, as well as to the Business School, Public Affairs, Electrical Engineering, the Law School, Social Work, Health Policy, Fisheries and Ocean Sciences, Forestry, and the Program on the Environment.

On the College's part, the department perceives a need for a more clear and coherent plan to strengthen and develop Economics and the other core Social Sciences. Perhaps because of recurrent budget woes, allocations of new permanent positions within the College appear to us to be determined on the basis of short-run budget considerations, such as a unit's availability of bridge funding, rather than on a strategic vision of how the College, particularly the Social Sciences, should develop.

Challenge: Lifting UW Economics into the Top Ten among Public Research Universities

A highly ranked program is not just an important measure of success; it is a necessary condition for the continuation of success. Highly ranked departments attract the best students and are best able to place those students when they graduate. Highly ranked departments attract the best faculty. A high national ranking is essentially a form of capital—it is something that must be accumulated over time with a series of successful actions, and must be carefully conserved. Once it is lost, it is difficult and expensive to restore.

The troubling slippage in the national ranking of the UW Department of Economics has happened for a number of reasons that have already been mentioned. The issue we address here is how to reverse the situation. If the situation is not reversed, the national prestige of the UW Economics department is likely to fall further, since the Department's present ranking probably reflects "sitting on our laurels" to some degree. A department's ranking depends both on the resources available to it, and on how well it manages the resources it has. Thus, any initiative to stop the slide and increase the national ranking of the UW Department of Economics will be necessarily a joint project between the College, which makes the resource allocation decisions, and the Department, which makes the resource management decisions.

The next ten years holds both great opportunity and significant risk for our department. Within that period, as many as half of the tenured faculty members in the department can be expected to retire, or about one per year on average. This fact offers a golden opportunity to re-invigorate the department by recruiting new faculty with new ideas and research programs. The risk is the premature loss of the existing senior faculty who are most able to lead the process of renewal. Further, the loss of senior faculty without an opportunity to recruit new senior faculty to replace them, may lead the productive remaining faculty members to look elsewhere.

Given the opportunity before us, a necessary question to ask in these times of limited budgets is whether the University of Washington can afford a ranking Economics department. The simple fact is that economists are expensive relative to other faculty. While salaries in Economics are high relative to those in some other UW departments, they are low among Economics departments. It is simply wishful thinking to expect to have a department that ranks in the top 10 of public universities with a faculty that is paid on average less than faculty at departments that do not even rank in the top 25. In order to be competitive in salaries nationally, the average faculty compensation in the Economics department would need to rise at least 25%.

One answer to the question of whether UW can afford a highly-ranked Economics department is that it cannot afford not to have one. While it is possible to be an excellent small liberal arts college or a large mass producer of undergraduate degrees without a ranking economics department, almost every research university that UW seeks to emulate has a highly-ranked economics department. Among publics, they include Berkeley, UCLA, Michigan, Wisconsin, and Texas. Among privates, they include MIT, Harvard, Yale, Princeton, Chicago, Stanford, and newly, NYU. Given that all of the best research universities need and have first-rate economics departments, it is not clear why UW can succeed over the long-run without one.

Whether or not one agrees with this view, a few simple calculations indicate that a ranking Economics department may be affordable at the University of Washington if the College is willing to invest in the department at the same rate per student as it does in the other Social Science departments. The College currently invests substantially fewer dollars per major and per SCH in Economics than in the other Social Science departments. For example, over the past five years, budget dollars per SCH have averaged less than $75 in Economics as compared to $87 for the Social Sciences as a whole (including Economics). Similarly, the College spends less than $4000 per major in Economics as compared to $5000 per major for Social Sciences as a whole. Given our high enrollments, if the College were to invest budget dollars in Economics at the same rate as it does in the other Social Science departments, our department budget would be increased by about 25%. Such an increase would allow the possibility of a department with a faculty of the current size or slightly larger that is competitively compensated. Put simply, the affordability of a ranking Economics department depends on the College's willingness to treat the Economics department no worse than the other Social Sciences in terms of budget dollars per student, and on the Economics Department's ability to maintain and manage substantially higher undergraduate instructional loads than those other departments.

Given this possibility and assuming willingness on the part of the College, it is necessary to develop a plan as to how these additional resources would need to be invested over the next ten years to achieve our goals. Although the details

are beyond the scope of a self-study, it seems that such a plan would involve the following elements.

- Renewing the research faculty by taking advantage of retirements and departures to recruit excellent junior and senior faculty in our designated fields of strength and in the disciplinary core.
- Targeting and developing areas that promote the strength of the department by leveraging strengths in other College units.
- Increasing research funds available to faculty to recruit and support excellent graduate students as research assistants.
- Employing greater division of labor between instruction and research, with funds to hire temporary instructors, senior lecturers who specialize in instructing larger-sized classes, and to provide incentives for non-research productive faculty to take on a larger share of the department's instructional responsibilities.
- Improving the use of technology to develop active, discovery-based learning techniques suitable for larger class sizes.

In addition, the department should increase the quantitative content of its undergraduate and Master's curricula in order to enhance the career potentials of Bachelor's and Master's graduates. This could make possible new funding sources by developing self-sustaining degree programs, such as a Professional Master's of Science track.

Section B: Instruction and Learning

Allocation of Teaching Responsibilities

The normal instructional load for Economics tenure-track faculty is four courses during the academic year. Senior lecturers normally teach six courses. These loads can vary across faculty members for a variety of reasons, including course reductions as part of recruitment and retention negotiations, administrative duties, professional leave, and course buy-outs for research purposes.

A list of permanent and temporary faculty members and the number of graduate and undergraduate courses and SCH taught for the past five years is attached as Appendix I. The course list includes shared courses but does not include other classroom and instructional duties such as brown bag seminars, directed studies, research supervision, and supervision of internships. The SCH list counts course SCH and the five-year total for directed studies (Economics 499) SCH.

Typically, faculty members instruct core courses and courses in their field of research. Although all faculty members have taught some undergraduate courses in the past five years, the graduate courses are taught mainly by the research active and junior faculty. Some faculty and the senior lecturers teach mostly undergraduate courses. Large class courses are assigned to the most experienced instructors.

Graduate teaching assistants may instruct stand-alone sections of Economics Principles (Economics 200 and 201) and some sections of Intermediate Microeconomics and Macroeconomics (Economics 300 and 301). Because of severe enrollment demands, with the Dean's permission we selected a few graduate teaching assistants to teach stand-alone 4th year courses in AY 2003-04 and will do so again in 2004-05. These teaching assignments are made only to students who have their Ph.C. (i.e., have passed their General Exam), are entering the job market that year, who have experience and excellent teaching evaluations in stand-alone lower division courses, and who have a faculty mentor/supervisor to oversee their curriculum and teaching assessments. Such students teach in their research field as part of building their teaching portfolios.

Faculty Involvement in Undergraduate Student Learning

As the number of our majors has increased, a smaller-sized faculty has had to devote increasing time to advising, mentoring, and helping students. In the Spring, 2004 confidential senior exit survey, 87 percent of students had visited instructors to get help with course material, 23 percent had asked for letters of recommendation, 25 percent had received advice about graduate school or careers, and 16 percent had held other discussions. And 86 percent of students rated these interactions as "valuable" or "very valuable." One faculty member serves as advisor to the Economics Undergraduate Board and the Economics Undergraduate Tutoring Program. Another helped recent graduates and current

undergraduates to organize a monthly discussion group on topics in public policy, called THINKECON.

The Economics Undergraduate Board sponsors a number of well attended seminars throughout the year, featuring Departmental faculty, alumni, and other visitors. Last year, the quarterly Paul Heyne seminar series for undergraduates presented several faculty members who offered a brief presentation on a policy issue followed by an active discussion. The Economics internship program offers students the opportunity to combine independent economic research under the tutelage of a faculty member with an internship activity. In this year's Senior Survey, 8 percent of students had completed independent research projects (ECON 499) and five percent of students wrote research papers linked with academic internships.

There are major challenges in expanding the opportunities for independent study for all students who want them given our current enrollments. Senior class sizes now limit our ability to use individualized, project-based learning in all classes, and some courses that incorporated independent research projects in the past have had to abridge individualized projects.

Assessing Instructional Effectiveness

The Department uses classroom assessment, including OEA course evaluations, collegial teaching evaluations, and cooperative course planning. Where several instructors offer different sections of the same course, they attempt to provide new instructors with feedback and to coordinate topics and texts so that students will master similar concepts and skills.

All instructors provide the Department with student teaching assessments every year (for faculty) and every quarter (for pre-doctoral instructors.) All faculty members submit collegial course assessments as required by the Faculty Code based on an evaluation of course readings and assignments, web-based materials, problem sets and exams, and classroom observation.

The Department also uses the university's catalyst program to create an anonymous exiting seniors survey on the web, surveying program satisfaction and attainment of learning goals. In this year's survey, 86 percent of respondents said that they were well prepared or very well prepared for their career goals and 91 percent felt that they were well prepared or very well prepared for their decisions as citizens. The senior exit survey asks respondents to assess our program and invites comments on individual pathways and courses in the program. Seniors rate the program highly in preparing them to define and solve problems, critically analyze written material, learn independently, understand and apply economic principles, and relate economics to the other social sciences. The survey gives the Department weaker marks in training students to speak effectively.

The Economics Undergraduate Board (EUB) also carries out a survey of our undergraduate majors. Each spring, they present the results of their survey to the Visiting Committee and to the Divisional Dean for Social Science. The EUB also gives the department informal feedback on student difficulties and outcomes in the lower-division courses based on their tutoring of students from the lower-division and intermediate courses,

Recent responses from student assessments, the senior exit survey, and the EUB survey all express considerable frustration at student inability to register in 400-level classes, and of the large size of the classes when they do get in. Many students found it difficult to complete a concentration in a field of interest because of the over-enrollment in all classes.

Mentoring and Supporting Instruction

The department takes pride in its excellent instruction, and seeks to instill a similar ethic in our incoming junior faculty and graduate teaching assistants. All faculty members are diligent in obtaining course assessment and feedback from students and peers. Many faculty members attend departmental seminars on teaching practices where they share successful ideas and innovations for the classroom. One of the department's highest honors, the Buechel undergraduate teaching award, is bestowed annually on instructors who have made distinguished instructional contributions.

The department has an excellent program for mentoring graduate teaching assistants. An experienced faculty member acts as departmental TA coordinator who works with the Director of the Graduate Program in evaluating the performance of all TAs in every quarter, facilitating the Economics 602 (TA Training Seminar), selecting and supervising the lead TA who oversees new TAs in quiz sections, writing in conjunction with the Director of the Graduate program a quarterly TA report to the Graduate School, working with the Center of Instructional Development and Research to help TAs with their professional development, resolving problems regarding pedagogy and teaching evaluations between students and TAs, and handling any other problems that may crop up with respect to TA instruction.

Tracking Innovation and Best Practices in Undergraduate Student Learning

The discipline of economics is undergoing significant change, driven by developments in the economies we study in conjunction with an expanding set of tools, techniques, and models that enable us to study economic issues with growing sophistication. Globalization of markets, emergence of international financial markets, and fundamental changes in domestic society all confront us with new and difficult economic questions. Sophisticated analytical tools and new sources of information create opportunities for inquiry-based research, and bringing state-of-the-art analysis to bear on new and old questions. Our faculty engages in continuing innovation in order to incorporate these new developments in both content and technique.

There is an ongoing process of introducing topical new content into established disciplines. For example, new topical content on financial econometrics has been introduced into Economics 483 and on financial crisis into Economics 406. Our faculty members are active participants in and contributors to their fields of expertise, so their teaching is informed by their research, editorships, conference participation, and other academic service. Within the department, collegial evaluations, informal coordination among faculty teaching in related fields, and the active introduction of new courses all play a role in keeping our course content state-of-the-art. New assistant professors bring innovative new approaches to our research and curriculum.

During 2003-04, the Undergraduate Committee sponsored a seminar on innovations in teaching. Last year's sessions explored how to elicit class discussion in a large lecture class, how to motivate students to use a macro-economic model actively, and how to use an economic game with small group participation to teach how to solve a dynamic resource management problem. We hope to continue seminars that explore best-practice teaching.

There are major challenges in providing wide access to best practice technology in our program. Giving our students the quantitative skills and opportunities for learning-by-doing in order for them to become innovative professionals requires an intellectual environment where the brightest students can interact with each other and with experienced researchers. It also requires a infrastructure that can make available to them the necessary statistical software and computing equipment, along with experienced assistance. Ideally, we need an economics undergraduate computer laboratory staffed by graduate student assistants. We could also use an economics commons room with adequate space for the EUB tutors and for small groups of students to work together in teams.

Section C: Research and Productivity

Balancing individual and institutional interests

There is a strong consensus in the department that we value high quality scholarly research above all and that faculty members are free, and indeed encouraged, to pursue their research goals consistent with their instructional and service obligations to the Department and the institution. Research productivity is highly weighted in merit reviews and promotion and tenure decisions, and all faculty members are aware of this priority. Attempts are made to match faculty instructional responsibilities to their research interests. Departmental endowed and term gift funds have been used to support research by the most productive faculty members, although these funds are not sufficient to support all productive faculty members.

Expectations are clearly established with respect to a faculty member's instruction and service responsibilities; although it is fully realized by all that some division of labor is normal and desirable. Typically, tenure-track faculty expect to teach four courses during the academic year, although some teach less as part of recruitment or retention packages, or in exchange for undertaking certain service obligations or to devote time to certain research projects. Senior lecturers are expected to teach six courses per year, though course reductions are given for undertaking special service obligations or to design curriculum innovations.

Mentoring Junior Faculty

The Department's past record on junior faculty mentoring has been excellent, with five assistant professors tenured and promoted in the past ten years. The junior faculty is mentored by the senior faculty, usually by those in the same or a related field. Although no official mentors or formal mentoring committees are appointed, the Chair ensures that senior faculty members meet regularly with junior faculty members. Junior faculty members are encouraged to circulate their research papers to senior faculty, particularly those in their field, and to seek input and advice on publishing. The Chair conferences individually with junior faculty members once a year, as required by the faculty code, to assess each member's progress in teaching and research, and to recommend remedial action if any is needed. If a junior faculty member appears to be floundering, having trouble in the classroom, or requests it, the Chair will appoint a mentor group.

Although junior faculty members are expected to participate in departmental governance and planning, typically their service responsibilities are in the research area. Junior faculty members are put in charge of arranging the visiting speakers for the department seminar series, and serve on the departmental research productivity committee. Efforts are made to minimize new course preparations by junior faculty members, and they are encouraged to develop their instructional skills in upper division undergraduate and graduate courses in the core and their research fields.

Junior faculty members also receive precedence in the allocation of department conference travel funds. In the case of recent junior recruitment, the department has ear-marked discretionary gift funds as start-up research funds for incoming junior faculty.

Advances and Impact of Departmental Research

The main impact of UW Economics research in the past five years has been in certain fields. Department research has been at the forefront in time-series econometrics, "new family economics", computational and dynamic macroeconomics, as well as contracts and information. For instance, Nelson and Kim's work on Markov switching models has influenced the empirical business cycle literature that studies asymmetries in upturns and downturns. Their techniques have vastly extended the range of research possible in this field. Lundberg's work with Bob Pollak on family bargaining has restructured the way economists think about family decision making, away from the individual choice theoretic models toward collective choice frameworks. Eicher and Turnovsky's work on distribution, institutions and dynamic models of macroeconomics has furthered research in this direction. Zivot's work on time series econometrics has also been influential and the Zivot-Andrews unit root test paper is highly cited. Rose's work on gender and family choices has been featured in the national popular press, and Khalil and Lawarree's work on informational constraints in contracts has received some attention.

A recent publication by Thomas Coupe (http://ideas.repec.org/coupe.html) ranked the 1000 top economists in the world based on publications and citations between 1990 and 2000. Five UW Economics faculty members appear on the list. One faculty member, Professor Stephen Turnovsky, appears in the top 100 in publications. Other listed faculty members are Charles Nelson, Shelly Lundberg, Eric Zivot, and Charles Engel (who was in the UW department during the period measured).

Over a longer three-decade period, two UW economists appear on Coupe's "potential future Nobel prize winners" lists (http://homepages.ulb.ac.be/~tcoupe/ranking.html). Professor Stephen Turnovsky is listed 5th out of 1000 economists in publications and 140th in citations over the period, and Professor Charles Nelson is listed 156th in publications and 80th in citations. One article by Professor Charles Nelson now has over 1000 citations, a significant benchmark of impact.

Research impact is also reflected in the professional offices and activities on Economics faculty. Two faculty members are Fellows of the Econometric Society, one faculty member is current President of the Society of Computational Economics and past-President of the Society of Economic Dynamics and Control, one faculty member is the past-President of the Western Economics Association, one faculty member serves on the Advisory Board of the National Bureau for Asian Research and served on the National Academy of Science

Task Force on the Transitional Economies, several serve on review panels for organizations such as the National Institute for Health and Fulbright Scholars, many faculty members serve on editorial boards of the leading journals in their fields, and several have served on organizing committees for major national conferences. This is only a sample of the professional impact of Economics faculty members. A review of the faculty CVs will give a fuller picture.

Impediments to Faculty Research Productivity

As mentioned above, we consider the small size of the research active faculty and the lack of sufficient external research funding in our department as serious weaknesses. The 1999 review concluded that the department had developed a culture "that tolerates mediocrity in research productivity." For this reason, we list at some length the possible impediments to faculty research productivity.

To begin with, the age structure of the faculty, with half of or more of the tenure-track faculty over 55 years of age is certainly not conducive to a trend of increasing faculty research productivity. Second, until recently the department has had few opportunities to recruit new faculty, which has deprived the department of the input of new ideas and energy. Since 1991, the department had only two opportunities to recruit senior faculty, and these opportunities were withdrawn after the first-choice candidates declined. Third, faculty members who have stopped producing research face natural barriers to restarting their research agendas, or lack adequate incentives to do so. Fourth, the lack of a predictable merit ladder and the resort to outside offers as a means of raising faculty salaries has led some to focus on teaching or to supplement their salaries with consulting research rather than scholarly research. Fifth, some faculty members are discouraged and believe that the only research that gets recognized and appreciated is that which brings in big research dollars or serves to advance the multidisciplinary research goals of the College. Sixth, heavy teaching obligations have reduced the time that the faculty has available for research. (In recent years, Economics faculty members have taught more Student Credit Hours (SCH) per faculty member than any other department in the College.) Seventh, reduced interactions in the profession have led to the substitution of internal benchmarks for external benchmarks as criteria for satisfactory research performance. This can lead to a "vicious cycle" in which faculty members accept less than satisfactory performances on their own parts because a large number of their colleagues do no better. To some degree, this may reflect the relative geographic isolation of UW.

As this list suggests, overcoming these impediments will be neither easy nor done within a short time frame. However, there are several hopeful factors. First and foremost, the faculty, whether research productive or not, are agreed on the value of successful research to the health and prestige of the department, and on the need to use departmental resources to further our research productivity goals. Second, the age distribution of the faculty portends significant turnover in the next decade which will provide opportunities to revitalize the research mission with successful recruitment. The department has demonstrated its ability

to recruit excellent junior faculty during the past two years. Third, the College has been supportive of the department's recruitment efforts in the past two years by making possible very competitive offers, and has indicated it will invest more resources in the department as they become available.

Challenge: Improving the Departmental Research Culture

The 1999 departmental review concluded that "a culture seems to have developed in the Department that tolerates mediocrity in research productivity." Of all of the conclusions in the 1999 Review, this is the one that the Department takes most seriously. It is also the most difficult to remedy.

Ultimately, the key to substantially increasing the research performance of UW Economics faculty lies in good future recruitment (see impediments above). In the meantime, the department is doing all it can to encourage research by existing faculty members. Economics faculty members have begun two new research centers since the 1999 study, one on the economics of the family and the other on regional economic policy issues. Gift funds have been raised to provide term professorships (called Distinguished Scholars) that have targeted research funds at productive new Associate Professors. The department also makes available small research stipends to all faculty members out of gift funds. The department and its affiliated research centers sponsor over 40 seminars by visiting speakers each year, which are well-attended by faculty and graduate students from Economics and other departments. Funds are made available for faculty who do not have their own resources to travel to national conferences if they are presenting papers. We have a staff member with considerable expertise to assist faculty members in developing budgets on research grant applications. Successful external grant applications are given weight in merit decisions, and faculty members who obtain such grants are permitted to fund course reductions on favorable terms to enable them to undertake their research in a timely manner. Faculty members are encouraged to present and share their research with colleagues at department colloquia. We have recently reworked and improved the working papers site on the departmental webpage.

In the future, we envision a department that builds on its current strengths in applied, computational and quantitative economic research and methods. Future recruitment will focus on econometrics, dynamic and empirical macroeconomics, applied microeconomics, labor/development/population economics, and resources/environmental economics.

Staff productivity and recognition

Our staff members form important bridges between students, faculty, administrative personnel, alumni, and visiting committee members. Their contributions to the goals and accomplishments of the department are noted throughout this study, and in the department's annual reports to the Deans of the College of Arts and Sciences, Graduate School, and Undergraduate Education.

What steps has your unit taken to encourage and preserve productivity on the part of all segments of your staff?

- Within resource limits, the department recruits and hires excellent candidates who are likely to succeed in our work environment and who show promise of initiative and growth in meeting departmental needs.
- Our department continually revises support expectations, work practices and job descriptions to adapt to new roles and priorities in response to emerging departmental needs. We have reclassified positions to reflect these changes, which supports staff retention by creating positions with higher compensation and growth potential. We have shifted some functions from faculty support to database or web-based support. As the number of majors doubled, we have reallocated TA funds to hire a half-time Graduate Staff Assistant to support the undergraduate advising team 9 months per year.
- We maintain a welcoming and friendly atmosphere in the department. Concerns of staff are taken seriously and addressed promptly by the Administrator or Chair. Staff members utilize a team approach that avoids distinct hierarchy and a rigid division of duties.
- Our department shares resources and job functions with 3 other departments in Savery Hall including computing staff and server resources and rotating responsibility for payroll runs and facility management.
- Our internal policy allows flexible work (and leave) hours, while retaining coverage of major functions. We've also implemented remote desktop computer access to facilitate occasional telecommuting.
- Workspaces have improved significantly (repaired, remodeled, furniture exchanged) with departmental, College and Physical Plant resources. Computing equipment is upgraded regularly through competitive funding awards and reallocation of older equipment.

Challenges

- Over the past 5 years, the number of Economics undergraduate majors has doubled while our operating budget has been reduced and our staff FTE has stayed virtually the same (with a shift from permanent staff to temporary hourly and graduate assistant support). These enrollment pressures have affected all of our staff, but have particularly challenged our undergraduate advisors. Many departments on campus, with

comparable numbers of majors have 3 to 4 advising FTE as compared to our 2.375 (permanent and temporary) FTE in undergraduate advising.

- Staff turnover statistics are not readily available but a rough analysis of permanently budgeted staff and hourly FTE for the last 5 years indicates a turnover of 2.7 FTE per year out of an average of 7.5 FTE permanent staff. Of the 16 staff departures from July 1999 to June 2004, 5 took promotions or higher salaries in other departments, 1 took a lateral move or better fit in another department, 2 retired, and 8 left the university.
- Compensation improvement is a major reason for staff turnover. Moving between departments is the main source for reasonable staff salary increases and promotions at the UW. Staff salaries are generally higher in the natural sciences and medical departments. Our department's options for compensation increases are limited.
- High rates of staff turnover (and extended vacancies) create significant costs through loss of trained staff and institutional memory, administrative time spent on separation and rehire, and training of temporary and permanent replacement staff. New staff members are generally hired at the same or higher pay than the departing, more experienced employees. The average vacancy period for staff positions is approximately 2.5 months. During vacancies the Administrator and other staff (permanent or temporary) cover the essential duties of the position.
- The shift of .5 FTE from permanent to hourly staff is due to reductions in staff funding. Students employed on an hourly basis are less expensive, but require more management time. Their schedules change constantly and they are appointed for shorter periods (such positions turnover approximately every 1.5 years). Also, 1 FTE of hourly funding represents approximately 3 student hourly employees to train and manage. Student hourly workers are relied on for computer tech support and as part-time receptionists. Some of the increased workload in the advising, fiscal and development areas has been mitigated by shifting tasks to hourly staff.
- Desk manuals and published procedures document many of the staff functions in our department. However, this documentation is not updated regularly by our staff due to workload. There is also a need for expanded documentation of policies, as well as the creation of formal orientation materials for new employee and visiting instructors.
- Over the past 5 years a large portion of administrative work and responsibility has moved from central offices to the departments, significantly increasing the workload of the departmental staff. At the same time, new mandates and changes to work practices have increased workloads.
- Improvements to the department's financial reporting system are needed to manage increased research awards, funded centers, endowments and other gifts. Such improvements require time and resources for defining, programming, testing and implementing the upgrades.
- Major increases in computing requirements and services continue without additional staff resources. The added workload for existing tech support

staff is significant. We need resources to hire another full-time permanent computing staff position (split with the other 2 academic units in the building). This would provide consistent and reliable back-up support for the Senior Computer Specialist, especially in network administration, website administration and a myriad of higher-level tasks not appropriate for the student hourly tech staff.
- Short staffing has strained staff morale. Many find that it has been necessary to lower personal standards of performance and expectations for excellence because of the increasing workload.

How are staff recognized and rewarded?

The department broadly approaches the recognition and reward of staff through monetary and non-monetary means. Some are extensions of departmental culture and traditional employer means. However, watchful efforts and additional resource commitments have been made to support staff retention.

Recognition

- Staff members serve on departmental committees with active roles, and their opinions are sought for their expertise and added perspective. Staff usually deliver their own reports at meetings rather than prepare materials for others to present. Since 1998-99, staff members have been included in meetings at the college level, facilitating communication and participation in policy decisions.
- We nominated 2 of our staff for the university-wide distinguished staff award in 2001-02.
- Staff contributions are acknowledged and honored at public events, in departmental newsletters and annual reports to various Deans.

Rewards

- Centrally funded merit and contract based increases have been augmented from departmental funds to provide In-Grade Retention Adjustments for Professional Staff and Career Enhancement Growth Program increases for Classified Staff.
- One-time special payments and temporary pay rate increases have been given for extraordinary effort or for short-term responsibility increases.
- Professional Staff are awarded discretionary leave for extraordinary effort, while Classified Staff are given compensatory time and paid overtime when appropriate.
- Other, less formal, rewards have included flowers and certificates of appreciation, lunches provided at staff meetings and coffee break refreshments for birthday celebrations.

Challenges

- The department has limited funds available for salary increases or financial recognition.
- Reclassifications, IRAs, CGEP and overtime payments are funded from cuts to the operations budget.
- Hierarchy has not disappeared in the department. Some faculty do not accept changes in policies or procedures that are not faculty-initiated.

What programs are in place to support professional development of staff?

Staff members are encouraged to enhance professional knowledge and skills in various ways. The Administrator and Chair are flexible in granting release time (or leave) for training and volunteer commitments that serve the wider university community.

- A small amount of departmental funding is allocated for staff development. We also take advantage of A&S matching funds to cover expensive technical courses for computing staff. On average, staff members take one fee-based course per year to expand or enhance professional skills. They are encouraged to participate in centrally funded job-related meetings, workshops and training sessions on campus.
- Service is encouraged on college and campus committees where staff members practice leadership roles, influence policies, effect improvements to campus systems, and exchange best practices.
- Staff members are encouraged to attend the annual college wide meetings and to read the messages from the Dean's website. Formal departmental staff meetings are held two to four times per year.
- Some staff members have enrolled in university courses through the university's tuition exemption program to enhance non-job-specific skills.

Challenges

- Staff are so absorbed with required and "urgent" tasks that it is difficult to find time for training, "big picture" problem-solving and organization that are enjoyable and creative components of a healthy work-life.
- Although service and training is encouraged, due to heavy workloads, several of our staff members have turned down committee appointments; others have missed meetings and training opportunities.

In conclusion, our department is extremely fortunate to have staff members who are productive and dedicated. We hope they know that they are valued and respected by the faculty, students, public and other staff members they work with. They are given latitude to be creative, to try new things, and they often elect to take on additional projects in spite of heavy workloads. It is a department concern that high work-loads and lack of resources will deplete this good-will.

Section D: Relationships with Other Units

The Economics department collaborates and interacts with other departments and units in a variety of ways. Four faculty members (Lundberg, Nelson, Rose and Zivot) currently have adjunct status in other departments, and five faculty members from other units (Huppert, Layton, Plotnick, Watts, and Wong) had adjunct status in Economics in 2003-04. Eight Economics faculty members (Brock, Bruce, Lundberg, Kochin, Salehi-Esfahani, Rose, Thornton, M. Turnovsky, and Wong) are affiliated with programs in the Jackson School. In these roles, Economics faculty members teach cross-listed courses, serve on dissertation committees, and serve on fellowship committees. Many of our graduate students teach courses and do research with faculty in other units as well. The department is affiliated with the CSDE and CSSS, and PhD tracks in other departments overlap with Economics (for example, the new econometrics track in Statistics.)

Economics faculty members also participate in governance in other units, notably Halvorsen (Program on the Environment Governing Board), Startz (CSSS Executive Committee), Lundberg (CSDE Executive Committee), Rose (CSDE Core Computer Committee) and Zivot (Computational Finance Program). Zivot played a key role in creating the Computational Finance Program along with Doug Martin from Statistics.

Collaborative research with faculty and students in other units is common (examples include Lawarree with Electrical Engineering, Lundberg with Social Work, Startz with Political Science, Zivot with Statistics, Finance, Forestry and Public Health, and Affiliate Professor Kim with Political Science and Sociology). Interaction with other units also occurs in ways other than collaborative research. For example, Economics faculty members take part in seminars in other units or are asked to provide an Economics perspective at interdisciplinary conferences and workshops, and work hard to facilitate the flow of ideas among communities on campus.)

The three research centers affiliated with Economics are interdisciplinary and engage faculty and students from other units, for example the Jackson School and the Business School with RCIE, Sociology, CSDE, and Political Science with CRF, and the Evans School, School of Nursing and Electrical Engineering with EPRC. The CRF has played a leadership role in interdisciplinary work on the family and has cooperated with other units on campus to organize and sponsor several workshops and symposia on family behavior and family policy over the past three years. The mission of the EPRC is to analyze regional policy issues from a multidisciplinary perspective.

Economics faculty and students also collaborate with professionals outside the academic world. Examples are research done with economists at the Federal Reserve Bank (Nelson, Startz, Zivot), research for government advisory bodies

(Bruce on the Gates Commission on Taxation, Leffler for the Attorney General's Office, Brock to the Chilean Central Bank). Faculty also inject their expertise into the non-academic world through distinguished appointments in the business community (for example, Lawarree on leave as Academic Relations Manager at Microsoft and Nelson on the Board of Directors for the Stein Roe and Farnham Mutual Fund).

Economic faculty members also serve on numerous standing and ad hoc College and university-wide committees and on dissertation committees (above and beyond GSR) in other departments.

There are planned future collaborations with the Philosophy Department on Social Values and with the Law School and Accounting on a multidisciplinary course in taxation.

Section E: Diversity

(The following is an edited version of our department's 2003-04 Report on Diversity to the Vice President for Diversity Rusty Barcelo. It was prepared by Professor Judith Thornton.)

By some measures, the Department of Economics is one of the more diverse departments at the University; only 43.5 percent of our students identify themselves as Caucasian compared with 55.3 percent in the whole university. Moreover, the methodology of economics is widely used to describe and explore topics relevant to diversity, such as sources of poverty and inequality in the US. Yet, as a discipline we still face challenges in demonstrating our relevance to many under-represented student groups and in attracting them to the study of economics. The challenges that we face in our discipline are common to all programs in economics, but the particular strengths of our department and the varied ethnic characteristics and international orientation of Washington State's citizens, should allow us to take the lead in demonstrating the contribution that diversity makes to academic excellence.

Student Access and Retention

The Department of Economics has an open undergraduate major, meaning that all students who complete the pre-requisites are admitted to the department, so the diversity of our undergraduate program depends on our visibility, attractiveness, and relevance to a wide group of students. Our Academic Counselors play an active role in informing interested undergraduates about requirements and opportunities of the major. Prospective majors find accessible information through the department website and from conversations with our advisors.

Some students—in some cases minority students—petition to enter the major with weak academic records. These are usually serious students who struggled in their early academic work, who attempted (and often repeated) rigorous courses, and who eventually demonstrated sufficient mastery of fundamentals to succeed in intermediate economics. The traits these students demonstrate—their willingness to stretch out and study new, demanding subjects, their determination in mastering difficult concepts, and their commitment to their own goals—are all indicators of their potential. During winter quarter, 2004, the Petition Committee approved 11 of 12 special petitions.

Tutoring and individualized practice are especially important sources of support for students who, at first, find analytical problem-solving skills difficult to master. The Center for Learning in Undergraduate Education (CLUE) evening program of discussion and tutoring is a valuable resource for entering students enrolled in large, introductory courses. The Office of Minority Affairs tutoring program also provides essential support to students who benefit from working one-on-one. The Economics Undergraduate Tutoring Program, provided as a volunteer service by seniors on the Economics Undergraduate Board, offers students walk-

in help. Minority students, including the 2003-04 chair of the Tutoring Program, are involved in tutoring as mentors as well as learners.

Our graduate student body comes from all over the US and the world. Their diversity and varied perspectives enrich our graduate program. As teaching assistants and instructors, these pre-doctoral candidates demonstrate the relevance of economic analysis to an understanding of domestic and global problems. Published University statistics obscure the actual diversity of this group of international students. They report an enrollment in Economics of 31 Caucasian (32 percent), four Asian-American, one Hispanic, but group together our 61 foreign students (63 percent) out of 97.

Staff and Faculty

One diversity issue facing staff is the under-representation of men in administrative roles. This paucity may reflect the way in which the University Personnel Office screens job candidates and directs them to potential employment tracks. Our administrative and advising staff includes men in one full-time and one part-time position. Presently, our staff includes one person with Asian ethnicity and one with Native American ethnicity. The department environment is open and welcoming, and student assistants from many countries of the world help the Department to maintain essential administrative functions.

Minority faculty and, especially, women are underrepresented in economics departments around the country. On both dimensions the Department of Economics displays much greater diversity than is common in most PhD-granting departments in economics. Our regular faculty of 27 has eight women (including a new faculty member starting 2004-05), and four faculty members who are of Asian or South Asian extraction (plus one adjunct and one affiliate professor). We also have two women adjunct professors.

Nationally, the field of economics does a poor job of attracting minority and women scholars to the study of economics. The deficit is startling in the case of women. In their Annual Report for 2001, the Committee on the Status of Women in the Economics Profession (CSWEP), a sub-committee of the American Economic Association noted that there has been no increase in the share of tenured women at PhD-granting universities in spite of a steady rise in enrollment of female graduate students and increased employment of women at the Assistant Professor and Instructor levels.[2] Although women are now approximately 30 percent of all new PhD recipients and about 32 percent of all first-year PhD students, nationally, women account for 13-15 percent of tenured Associate Professors and only 6 percent of Full Professors.

Seen against this national deficit, the representation of women on our faculty is considerably larger than the national average. The eight regular faculty women constitute 30% of the faculty. Two faculty members focus their research on

[2] CSWEP, 2001 Annual Report <www.cswep.org>

gender issues. One has developed an advanced undergraduate course on the Economics of Gender, which we offer in cooperation with the Woman's Studies Program. The other holds an endowed professorship and heads the Center for Research on the Family, which funds Research Assistantships relating to the Center's efforts and collaborates with other social science departments.

Curriculum and Research

Economics is an empirical social science. In their courses, students acquire tools for exploring alternative explanations about economic outcomes and they observe the economic consequences of policy choices. The tools of economics underlie our search to understand who we are in America, the sources of social problems, and the potential impact of alternative policies. For example, in the study of labor markets, students survey a wide body of scholarship investigating sources of differences in market wages. In econometrics, they acquire the skills to undertake their own investigation of the same questions. Learning is linked to scholarship. In a recent article, two of our faculty members investigate the role of market factors and discrimination in accounting for wage differences.[3]

The department has a distinguished, internationally-renowned faculty whose research contributes to the knowledge of human behavior and social and economic institutions. The empirical studies of several of our faculty address issues of inequality in the domestic economy and across the world. The Center for Research on the Family, mentioned earlier, engages faculty and graduate students on empirical research in topics relating to inequality, poverty, job markets, and family behavior.

The research of our faculty and graduate students addresses some of the most puzzling questions we face as social scientists. For example, the topics of 14 doctoral dissertations completed this year provides a list of major economic issues—the economics of health, corporate governance, environmental management and natural resource use, macroeconomic policy, international trade, and the sources of growth. The careful analysis underlying their studies provides the basis for informed policy discussion. The resumes of these newly-minted scholars display their international diversity; their numbers include scholars from the US, Europe, Asia, South Asia, and the Middle East.

Academic Climate

The departmental environment is welcoming and supportive of all our students and staff. The advising staff works closely with other college units to assist students, to advocate for their concerns, and to help them solve individual problems on the road to achieving their academic goals. The Department seeks to model support and accountability in our relationships. For example, we sponsored a presentation by the University Ombudsman on employee rights and appropriate methods of dispute resolution. We also provided seminars by the

[3] Shelly Lundberg and Richard Startz, "On the Persistence of Racial Inequality," *Journal of Labor Economics*, April 1988, 292-323.

University Counseling Office to inform faculty of the resources available to assist students who are experiencing serious academic stress. We have seen this assistance play a supportive role in helping students get through a discouraging time and to succeed in their goals.

Section F: Degree Programs

The Department of Economics offers four degree programs—a Master of Arts and a Doctor of Philosophy at the graduate level and a Bachelor of Arts and a Bachelor of Science at the undergraduate level. Information on the size of our graduate program is summarized in the following table.

	2003-04	5-Year Average
Graduate FTE	97	96
Autumn Admissions	27	24
Masters Awarded*	11	17
Doctorates Awarded	14	13

* These include Masters Degrees awarded to continuing doctoral students

Information on undergraduate program enrollments is summarized in the next table.

	2003-04	5-Year Average
Number of Majors (3Q Average)	821	580
Bachelor of Arts Awarded	360	252
Bachelor of Science Awarded	65	46
Total Bachelors Awarded	425	298

Doctoral Program

Both of our graduate degree programs are designed to train students to be professional economists. The doctoral program prepares students to undertake original research, advanced study, and instructional responsibilities as academic economists at universities and colleges, or to undertake original and applied research as economists in organizations like the Federal Reserve System, international organizations such as the World Bank and IMF, government agencies in the US and abroad, and financial firms or other firms that have an economics research division.

Our graduate program curriculum enables our students to acquire a general and functional knowledge of the structure of economics models of optimizing behavior and equilibrium, a broad knowledge of the contemporary literature in particular fields and detailed models specific to those fields, and an advanced working knowledge of the quantitative techniques needed to apply these models to economic questions and problems. The curriculum details are found in the attached “Guide for Graduate Students in Economics.”

The objectives and the broad curriculum structure of our doctoral program are the same as those in the vast majority of economics doctoral programs, and especially those of our peers.

Assessing Doctoral Program Performance

Our standard for success in achieving these objectives is the timely completion of the doctoral degree requirements by our students, the quality of their dissertation research and their successful placement, and the subsequent research publication and teaching success of those taking up academic appointments.

We are presently meeting these performance standards. The average time to completion for the Economics doctoral degree was 4.7 years for those graduating in 2002-03, with a five-year average time to completion of 5.9 years. This is less than College average of 7.1 years (2002-03) and less than most, if not all, of the other Social Science departments. Ideally, our students would complete their doctoral degrees in four years, although the median is probably closer to five. Averages, of course, are increased by the presence of a small number of students who take considerably longer than average to complete requirements. Also, some students interrupt their studies for a variety of reasons. The average time to completion statistic reported by the Office of Institutional Studies is time from first enrollment to completion of degree, and does not adjust for quarters in which students do not enroll.

In the 1989-1999 survey of the employment history of Economics Ph.D. recipients, 65% were placed in academic appointments and the remainder in government and business. In the past five years, all doctoral students have found employment, and according to exit surveys typically attained their first choice. In the Spring 2001 exit survey, the last available to us, 87.5% reported securing a position and 73.3% of those reported securing their first choice. A list of placements over the past five years is attached as Appendix E. The list identifies their last known appointments.

Most of our Ph.D.s who entered academic appointments have had successful careers. Several have received tenure early or have “moved up” from their first appointments. We assess this from reports of students who maintain contact with their supervisors. Also, although somewhat dated, we have already mentioned the Cox *et al* study (*Economic Inquiry*, 2000) of publishing success by Ph.D.s which ranks UW Ph.D.s 8th.

Challenge: A Tougher Market for Economics Ph.D.s

Looking forward, we anticipate greater difficulty in placing our Ph.D.s in the future as compared to the success we have had in the past. First, we expect the academic market for Economics Ph.D.s to be somewhat soft over the next few years. Evidence supporting this view is provided in Ehrenberg (*Journal of Economic Perspectives, 2004*). Second, due to the loss of faculty and a failure to invest resources in the Economics department, we believe our national ranking has been sliding. This reduces the academic opportunities for our graduates because it is unusual and difficult for a program to place its doctoral graduates in higher ranking institutions. As a proactive measure, we are redoubling our placement efforts.

We presently undertake a number of measures to prepare our Ph.D. students for employment. We now have a dedicated faculty placement officer who regularly meets with students finishing their programs, and advises them on preparing their resumes and teaching portfolios. The academic market for Ph.D. students in Economics is quite centralized, revolving mainly around the ASSA meetings in January. Our students are given significant preparation for this event in terms of information and mock interviews. In addition we regularly circulate and post information on academic and non-academic positions made available to us.

The softer academic market and the greater difficulty at placing our students in higher ranking research universities have affected our department planning. In addition to our greater placement efforts, we are encouraging students to improve their teaching portfolios to impress teaching colleges. The new Computational Finance certificate has both an academic and industry track, and some recent PhDs have taken the industry track and took positions at investment banks. We hope to increase our ties to non-academic organizations to improve our students' opportunities there. However, the single-most important measure that would improve the employment opportunities of our doctorates in this market is to raise our national ranking among research universities. We would need the support of the institution in the form of additional resources to do that.

Master of Arts Program

The objective of our Master's program is to enable students to do high quality applied economics. As in the Ph.D. program, M.A. students acquire a general and functional knowledge of the structure of economics models of optimizing behavior and equilibrium. In the second year, students proceed to elective courses and an internship in which they can specialize their training.

Application procedures and criteria for acceptance are the same for M.A. program applicants as for Ph.D. applicants. The first-year curriculum is the same for both programs. In effect, students can choose which program they wish to complete after the end of their first year classes. Often, students intending only a Master's degree decide to continue on to the Ph.D. and vice versa. Although students who find our Ph.D. program too difficult may opt for an M.A., the department endeavors not to make this degree a "consolation prize." Our success in this regard is demonstrated by the number of students who choose to enter our program in order to seek a terminal master's degree.

The measure of success of our M.A. program is largely based on the ability of our Master's graduates to secure good jobs as applied economists in government and industry. In fact, we (or perhaps more correctly our M.A. alumni) have done exceedingly well in that regard. Indeed the current President of our Visiting Committee and 2004 Distinguished Alumna is an excellent example of this success.

Challenge: Improving the Masters Program

To some degree, our department has failed to capitalize on the successes of our past Master's graduates. We have not done a good job of tracking the Master's alumni, nor have we taken advantage of the opportunity of forming a Master's alumni network to increase the employment opportunities for current M.A. graduates. We have recently started taking steps to rectify this situation. M.A. alumni now present career-oriented seminars to our current M.A. students and we are increasing our efforts to maintain contacts with our M.A. alumni. Through this means we expect to better stay informed of career options for our M.A. graduates and make such information available to them.

While our Master's program is already strong as compared to those of many of our peers, the department has long thought that the degree needs to be further improved and we are setting this as one of our ten year goals. The main objective will be to minimize any stigma associated with the degree. This stigma is in large part dictated by the fact that, in a large number of programs, the M.A. degree is sometimes used as a "consolation prize" for students who do not proceed in the Ph.D. program.

First, we will continue to forge connections between our current M.A. students and successful M.A. alumni in order to establish a better placement network for M.A. graduates. Second, the Graduate Studies Committee will be asked to consider changes in the curriculum for the second year of the M.A. program, including a professional research paper based on supervised applied research. Third, the department will revisit the possibility of a self-sustaining Professional Masters program, a model that is promoted by the institution and could allow us to hire new faculty. For some time, department members have agreed that such a degree would strengthen our graduate program and is compatible with our focus on applied, computational and empirical economics. However, we have not yet devised a workable two-track curriculum that we believe will be successful.

Undergraduate Programs

The Department of Economics offers two undergraduate degree tracks—one leading to a Bachelor of Arts and the other to a Bachelor of Science in Economics. The degrees differ in admission and graduation requirements. The Bachelor of Arts degree, which emphasizes problem solving and analytic thinking, is designed to prepare students for employment in the private and public sectors and for graduate study in a variety of fields, such as business, law, and public policy. It offers flexibility to students who take related and complementary courses in other Social Sciences. The Bachelor of Science degree puts greater emphasis on rigorous, quantitative and mathematical treatments of economics and is intended for students who plan to pursue a graduate degree in Economics.

Undergraduate Educational Goals

The Department of Economics has several educational objectives for our undergraduate students. Most importantly, we want them to develop what our late colleague, Paul Heyne, called "an economic way of thinking", which is a conceptual framework for thinking about and analyzing economic problems of choice and scarcity. We believe that this approach has applications that go beyond our courses, and helps students understand the problems and challenges faced by all individuals and organizations, from families to governments, within our society.

More specifically, we want our students to think analytically, to develop a variety of problem-solving skills, to learn to access key economic data sources, to acquire the statistical and quantitative knowledge needed to undertake and understand empirical research, and to learn how to use the appropriate tools of information technology in this pursuit. Finally we want our students to learn to express their ideas, methods, and results clearly and precisely, both orally and in writing.

Assessing Undergraduate Program Performance

The standards we use in measuring our success are: (i) the quality of the students we attract, (ii) the success of our students in applying the analytical skills and tools they learn in economics in their careers and in their lives, and (iii) the quality of the economics program as perceived by our students and alumni.

(i) Student Quality

Our program consistently attracts some of the best students in the college and university. Economics students are frequently honored with the Dean's Medal and the President's Medal. In 2003, four students were nominated for Dean's Medal and one received the Dean's medal and was also named a Marshall Scholar for 2003-04 to study at Oxford University. In 2004, five Economics students were nominated for the Dean's Medal.

Although the economics department, like the science departments, maintains rigorous grading standards, 24 Economics majors graduating in 2004 maintained a four-year academic grade point between 3.9 and 4.0. The estimated average grade point of students answering the senior survey was 3.23.

(ii) Success of Our Students

One of the important criteria for success in economics is whether students apply the knowledge, skills, and tools they learn in economics in their careers and in their lives. In the senior survey, 86 percent of students reported that their studies in economics had prepared them well or very well for their career/educational plans. Ninety-one percent believed that their studies had prepared them well or very well for their decisions as citizens.

The majority of our undergraduates enter careers where they make active use of the skills learned in the program. At the time of the senior survey in Spring 2004, 19 percent of students had accepted a job and another 55 percent planned to work after graduation. Six percent reported that they had been accepted into a graduate or professional program, and 23 percent planned to enroll in a graduate or professional program immediately, or after gaining some work experience.

The THINKECON policy discussion group, which brings together new economics graduates and honors undergraduates, provides some indication of career paths for recent graduates. One participant is a foreign exchange trader at Microsoft; two are doing market research in telecommunications companies; two are in international banking; one does project evaluation for the Washington State Department of Natural Resources; and another is in the emerging market research department of a major pension fund. The president of the UW Economics Alumni Association writes: "As we raise the Alumni banner we are finding very successful alumni, including (one graduate) who runs one of the top ten Healthcare venture funds. There are a number of Econ alumni who have translated their economics training into technology---There are other individuals I could name in Insurance, Government, Finance, Consulting, etc."

(iii) Program Quality

The Department of Economics offers an undergraduate program recognized for its excellence. The undergraduate course offerings of the Department of Economics are broad, and the curriculum is dynamic with continual development of new courses, formats, content, and teaching approaches. Our honors program offers separate sections of the core theory courses and prepares students for the best graduate and professional schools in the nation.

For students interested in additional specialized training, the Department offers four certificate programs in international economics, economic theory and quantitative methods, quantitative managerial economics, and environmental and natural resource economics. The Environmental and Resource Economics certificate is new. As well as serving economics students, it allows students in the all-University interdisciplinary Program on the Environment to combine economics with sciences, such as chemistry, fisheries, forestry, and biology.

The Department instructs many non-majors in all levels of courses including students from the business school, Jackson School, Evans School, Forestry, Fisheries, and from other Departments in Arts and Sciences. Furthermore our courses are listed in various certificates, options and programs offered by other Departments. Twenty-nine percent of our graduating seniors earned a double major or a double degree.

Challenge: Undergraduate Research and Learning-by-Doing with High Enrollments

To accommodate the large increase in Economics majors with fewer in instructors, we have had to make changes that reduce the individualized

instruction we can offer. For example, as the size of upper division classes have increased, faculty have had to offer fewer research projects, and less small group problem-solving exercises and applications. These individualized learning experiences were an important element of the quality of our program in the past. We now use web-based resources intensively in order to serve large groups of students effectively, and instructors in our Foundation courses are currently exploring ways of introducing more participatory learning in large classes.

Presently, the department successfully engages a number of our undergraduate students in research. Departmental Honors students who wish to graduate with distinction are required to produce original quality research in the form of a thesis, written under the supervision of a faculty advisor. Last year, seventeen honors majors completed the undergraduate research seminar and twelve completed independent research projects. Students work intensively with their faculty advisors, sometimes undertaking independent empirical work using databases provided by their supervising faculty.

The most noteworthy aspect of these independent research projects is their quality and variety. For example, the papers completed in 2004 include an economic history of American jazz, an empirical study on the relationship between state welfare support and support payments by non-custodial parents, a study of Singapore's support for the information technology sector, and an analysis of emissions banking and investment in abatement technology. Other students undertook independent research projects in connection with internships and advanced courses.

Several members of the faculty involve undergraduate interns in their own research. Some of the topics that engaged undergraduate researchers last year were the effect of tax structure on the level of state and local spending, the effect of exchange rate changes on trade and productivity, determinants of foreign investment, and the employment impacts of job outsourcing in the software industry. One of this year's undergraduate interns will be working next year as a research intern at the San Francisco Branch of the U.S. Federal Reserve Bank.

A major challenge to involving more undergraduate students in research is lack of sufficient training in quantitative methods on the part of the students. Presently, only 11 percent of the students in our senior exit survey report taking econometrics (Econ 482), the leading methodological tool for engaging in empirical research. Unfortunately, we are unable to provide enough undergraduate courses in econometrics due to the lack of instructional staff in this field. When resources permit, the Undergraduate Committee will be asked to consider a curriculum reform that adds a third-year econometric methods course parallel to the existing intermediate microeconomics (Economics 300) and macroeconomics (Economics 301) requirements. This would increase the pool of research-ready undergraduate seniors, and enable faculty to better incorporate them into their research plans.

We will seek other ways to increase undergraduate research. Faculty applying for grants will be encouraged to budget funds to employ undergraduates for data and statistical tasks. We will encourage more of our students to apply for Mary Gates Research Training grants. We will also consult with the EUB members about the expectations of our undergraduate students regarding research involvement and the ways in which they would like to be involved.

Undergraduate Teaching Innovations

There have been numerous curriculum innovations during the past five years.

- The Department has expanded certificate programs that allow students to specialize their study programs. We now have department certificate programs in International Economics, Economic Theory and Quantitative Methods, Quantitative Managerial Economics, and Environmental and Natural Resource Economics. In the coming year, we will consider a introducing a multi-disciplinary certificate in Political Economy beginning 2005-06.
- The Department has expanded our opportunities for study abroad. We presently have exchange agreements with three Universities—in Thailand, Germany, and the Netherlands.
- We have expanded our offering of courses that are essential to interdisciplinary programs on campus, including area studies courses offered jointly with the Jackson School of International Studies. We have introduced a Mathematical Economics Option with the ACMS Program and added a lower-division course in environmental economics in collaboration with the Program on the Environment.
- New course offerings include ECON 486 (Economics of information), ECON 235 (Introduction to Environmental Economics) jointly with the Program on the Environment; ECON 406 (Transitions in Central Asia), ECON 446 (Economics of Education), ECON 464 (Financial Crises), ECON 423 (Special Topics in Financial Economics). Economics 423 brings in successful Economics Alumni members who lecture on economics applications of their own experience in industry. Also, our undergraduate seminar, ECON 406, regularly offers courses on special topics.
- In 2004-05, we are offering two new 400 level survey courses—on advanced economic methods and on applications of economics to policy.
- In 2004, Professors Gene Silberberg and Haideh Salehi-Esfahani received a College Foundation Course grant to re-invent how we teach Economics Principles. The new methods, which include classroom, discussion group, and on-line learning forums, will increase participatory learning and offer greater flexibility to students in completing course requirements.
- An important change that improves our services to undergraduates is the expansion of the undergraduate advising office. Our Academic Advisors, Ahna Kotila and Heather Clineschmidt, have significantly improved our

program by providing well-informed support to more than 800 majors, organizing special programs linking academics with broader student interests, and building a spirit of community that makes the Economics Department unique. Our advising staff delivers information and advice to our students in many different forms. They were pioneers in the use of the Web and e-mail communication in advising, yet maintain an open-door office where students can always find answers to their questions and receive help with any idiosyncratic problems that arise.

Undergraduate Program Efficiency

The Department of Economics runs one of the most efficient undergraduate programs in the University. Over the past four academic years, the average time-to-completion for the Economics Bachelor's degree has been 4.4 years for non-transfer students and 3.0 years for transfer students; the College-wide averages are 4.7 and 3.4 years respectively. Similarly, over the past five years the undergraduate degree efficiency index for Economics is 89.3% as compared to 88.5% for the Bachelor's of Arts degree College-wide. Last year, fewer than 20 of our 800+ majors were above the 210 credit limit. In all cases, they met with an Economics Academic Advisor to work out a schedule, fill out graduation paperwork, and file a petition. All petitions were approved. As far as we are aware, the Economics department has never been out of compliance with any state-mandated accountability measures.

Careers for Economics Students: Connecting Our Students to the World

The Department's alumni form an impressive group. They are remarkably supportive of the Department and its students. We have a dynamic, involved Visiting Committee that is anxious to engage with our current students.

This year, a group of economics alumni began a program to better track alumni and their successes and to identify career options, possible placements and formalized internship offerings for our students. They organized the UW Economics Alumni Organization (UWEAO), chaired this year by our Alumna Larina Davis (BA 1992, Ph.D. (MIT) 1998). The UWEAO aims to connect alumni to the UW Economics Department and to each other, to provide meaningful opportunities for involvement, to develop strong community awareness, and to facilitate the exchange of economic ideas.

The UWEAO will establish connections with alumni and provide events of interest, such as the pre-game Kick-off Lecture by Gardner Brown in September. Their plans include employment of student interns and a career networking night for Economics and Business School undergraduates and alumni.

We believe that bringing back Alumni from the professions to share their experiences with students has tremendous value for our students. In Economics 423, members of the Visiting Committee teach segments of the course drawing on their own business experiences in applied finance. Development of the

UWEAO will increase the pool of talented alumni to guest lecture, mentor, and share insights with the Department and its students.

In sum, one of the most valued characteristics of the Department of Economics community is the willingness of everyone—alumni, faculty, staff, graduate students, undergraduates (especially through the EUB and honors programs)—to contribute to the creation of an excellent learning environment. This strong, bottom-up support allows us to accomplish extraordinary results with the resources available to us.

Section G: Graduate Students

The Department is fortunate to attract and retain dedicated and high-quality graduate students. In 2003-04, our graduate enrollment was 97 FTE students, of which 81 were enrolled full-time. Of the 97 FTE, 25 were first year students, 23 were second year, 9 were third year, and 15 were fourth year students. There were 25 students in fifth year or higher. Many of the latter group was enrolled part-time. A majority (60) of the Economics graduate student body were International students. There were 29 women and 5 students of ethnic minority.

Recruitment and Retention of Graduate Students

Recruitment of Economics graduate students is selective and successful. The department received 443 applications to its graduate program for admission in Autumn 2003 and offered admission to 66 (21%). The admission offer rate for all Social Sciences in 2003 was 29%. Over the past five years, the department received on average 313 applications per year and the average acceptance rate was 21%, as compared to a 29% five-year average for all Social Science. Other evidence of selectivity is the GRE scores of the admitted Economics candidates. The five year average quantitative and analytic GRE scores of the incoming graduate Economics class were 768 and 696 respectively, as compared to 644 and 658 for all Social Sciences. The average GRE verbal was lower in Economics (546) than in Social Sciences as a whole (587), but this can be explained by the much larger fraction of international students entering our program (32% of offers in Economics as compared to 16% for all Social Sciences in Autumn 2003).

Despite the selectivity of our program, we are successful in enrolling the students we offer admission. Forty-one percent of the applicants offered admission were enrolled in the Autumn 2003 class, comparable to 43% for all Social Sciences. Our five-year record of enrolling students offered admission is slightly less successful—36% versus 40% for all Social Sciences. We hope to retain our recent success at recruiting graduate students while maintaining our selective admission criteria.

A major barrier to improving our success in enrolling students offered admission is the adequacy and type of funding. Although 75% of our graduate FTE are funded and all of the best students offered admission to our program are guaranteed funding for four years (subject to maintaining acceptable progress), Economics graduate students depend to a greater degree on teaching assistantships (67% as compared to 57% for all Social Sciences). Although the department has been successful at offering fellowships from dedicated endowed funds, it has not been able to offer as many research assistantships as other Social Science departments due to a lack of funded research by faculty members. A further source of difficulty is the fact that the Economics department has not been as successful as other departments at obtaining Graduate School Fund for Excellence and Innovation (GSFEI) recruitment awards. For example, for the past three academic years, the Economics department graduate students

received an average of $18,372 per year in GSFEI recruiting awards as compared to $33,996 in Political Science and $45,957 in Sociology, which have comparably-sized graduate programs. Since Economics graduate students are at least comparable in quality to these other units, this record should not persist.

The department has had mixed success at recruiting under-represented minority and women graduate students. The department makes special efforts to reach out to minority students—those identified as potential minority applicants by the Graduate School receive an Economics graduate program application packet. If a minority student is accepted into the program, the Graduate Program Director works with the Graduate School to find special funding. In the past five years, the department received an average of only 13 minority applications per year and offered admission to an average of 5 persons per year (38% offer of admission rate). The department will consider additional steps to reach out to minority graduate students and will increase its efforts to enroll them in our program.

The department has had more success at improving our recruitment of women graduate students. Of students accepting our offer of admission for Autumn 2004, 46% are women as compared to the 30% female composition of the current Economics graduate student body. Although this percentage is lower than for other Social Sciences, we believe it compares favorably with other Economics programs given that Economics as a discipline that has been historically less attractive to women than other disciplines.

Retention of Graduate Students—the Department's Response to the 1999 Review Concerns

Although the 1999 Departmental Review concluded that "the graduate program runs remarkably well" and is "sensibly conceived and well-administered", it also observed that our Core Examinations served as a "very severe screening mechanism (that) ensures that only students knowledgeable in the basics of economics will proceed to the Ph.D. program." It further stated that although "the failure rate is high…the system is certainly not arbitrary."

On the basis of this, and on interviews with graduate students, the Graduate School expressed concern about retention rates in our graduate program, and put our graduate program "on probation". In Autumn 2001, we were required to reduce our graduate admissions by "one half", and admitted only 13 new graduate students that year, less than half the admissions of the previous year. Subsequently, the department petitioned to admit larger graduate classes on the basis of the availability of excellent applicants and the viability of the program.

As a result of the Graduate School sanctions, the Department met with graduate students to consider ways to improve the program and, in particular, to ensure that we have a Ph.D. program screening process that is not unnecessarily stressful or the cause of undesirable attrition (screening out of capable students due to arbitrary or capricious factors). Among the several steps we took (see below) were pre-core-examination meetings between the examination committee

professors and students where candidates could ask questions and clarify expectations, timely grading of core examinations within one week (if possible, notification if not), and a formalized first-year graduate student mentoring program. The Graduate Program Committee is also considering a proposal to exempt students from the Core Examinations if they have an average of 3.8 or better in their first-year courses.

As a result of these changes, the fraction of students passing the Core examinations has risen significantly. The pass rate on the Core Examinations for the past five years of entering classes is summarized in the following table.

Date of Entering Class	Core Exam	# taking Exam	# Passed	% Pass
Autumn 1998	Micro	22	16	73%
	Macro	22	14	64
Autumn 1999	Micro	21	19	90
	Macro	21	19	90
Autumn 2000	Micro	19	16	84
	Macro	19	18	95
Autumn 2001	Micro	11	9	82
	Macro	11	9	82
Autumn 2002	Micro	20	19	95
	Macro	20	18	90

As seen, the failure rate on our Core examinations was not as high as claimed in the 1999 Review Report (50%). Nonetheless, policies undertaken in response to the review were successful in reducing the failure rate. The following table tracks the entering classes for the past five years as of Spring Quarter 2004 to give a fuller picture of Economics graduate student retention.

Entering Class	Number	% Still Enrolled	% Graduated with MA	% Graduated with Ph.D.	% Left Program*
1999	29	31%	27%	21%	21%
2000	27	52	26	4	18
2001	14	57	14	0	29
2002	23	82	0	0	18
2003	29	86	0	0	14

*Entrants and Departures include arrivals and departures of visiting students, of which we have one or two per year.

As this table shows, except for the small entering class of 2001, our retention rate (those entering who are still in the program or graduating with a degree) is in the order of 80%. Since this includes departing visiting students, the retention rate of permanent students is actually higher.

Advising, Mentoring and Professional Development of Graduate Students

The Economics graduate program is quite structured, with clear timeline objectives and program expectations set for each year of study. These expectations are communicated to our students in several ways. Most

importantly, all information the student needs to know is compiled in the document “Guide for Graduate Students in Economics” (attached) which is posted on the department website and is distributed to every incoming student. This document spells out clear criteria for satisfactory progress toward the Ph.D. degree and our criteria for Minimally Acceptable Progress (MAP). Failure to comply with MAP triggers a notice to the student who must meet with the Graduate Student Advisor and his or her dissertation advisor to devise a plan to meet the requirements. If the student is unable to comply, he or she cannot remain in the program. Proactive measures, such as early notification of students whose progress puts them at risk, has ensured that MAP is rarely invoked. In nearly all cases where it has, remedial actions have allowed student to remain in the program or the student has voluntarily left the program.

In response to concerns expressed in the GPSS Report in the 1999 Review, and the Graduate Council recommendation that the “department should improve communication and support of graduate students”, the department took several actions. Specifically: we increased communication and regular meetings between the graduate students and the Graduate Program Director, added representation of graduate students on the Graduate Studies Committee, invited graduate student representatives to department meetings, consulted with graduate students regarding scheduling of graduate courses, instituted a “fields day” to inform first year students about fields courses available in the following year, started a September math camp for incoming students to review the mathematical techniques needed in the first-year core courses, formalized a graduate student mentoring program, assigned interim advisors to students, and improved the graduate studies information section on the department website. Also, an Economics Dissertation Laboratory was instituted to aid third-year students in their search for a dissertation topic. Because of resource constraints, we have been unable to continue this service. We consulted with the graduate student representatives about alternatives to the Core and General Examination processes. Together, we decided that, with improvements, the current General Examination procedure process works well and should not be changed.

Evaluating Our Graduate Program Improvements

In order to assess the success of our actions, the Chair of the Department and the Graduate Program Director met with the Divisional and Graduate Deans and the staff of the Office of Education Assessment to commission graduate student focus groups by year who would be asked to respond to questions about their experiences under the new policies. The Department prepared the questions to which we sought answers. After a year and several inquiries, we discovered that the OEA had “dropped the ball”. Due to the impending review, we were unable to reschedule the focus groups and, instead, conducted our own anonymous Catalyst survey of our graduate students in the different years to assess how well our program is working from the graduate student perspective. The unexpurgated answers to this survey are attached as Appendix M.

To summarize the answers to questions pertinent to this section:

Overwhelmingly, graduate students in all years responded that our program requirements are clear. 16 of 22 of first-year respondents attended the new Math camp, and of those that did 13 found it helpful or somewhat helpful. First year students overwhelmingly disapprove of allowing students with 3.8 GPA or better to grade out of the Core examinations. 13 out of 23 first year respondents met with their assigned faculty mentors and 16 out of 21 expressed a desire for more mentoring. First-year mentoring is clearly an area with room for improvement.

In addition to finding the requirements clear, nearly all second year respondents said core courses and research papers were useful for their field studies, and said they were "clear" or "somewhat clear" about what is expected of them after their course work is complete. However, 7 out of 14 respondents were unclear as to the criteria for passing the General Examination (which is an acceptable dissertation research proposal).

Third year students report that their econometrics training and the Brown Bag seminars are useful for their dissertation research, with 12 of 14 respondents answering that their econometrics training has been useful or very useful. Only 3 of 13 respondents reported that finding an interim advisor was "difficult" or "somewhat difficult" and only 3 of 11 respondents found their interim advisor "not useful". More students have difficulty establishing a dissertation advisor and committee, with 4 of 10 respondents reporting "difficult" or "somewhat difficult".

Challenge: Consolidating the Graduate Program Improvements

Given the concerns expressed in the 1999 Review, it is significant that nearly all of the survey respondents find the requirements of our graduate program clear, and that no student expressed concerns, mentioned difficulties, or indicated unclear expectations about the Core examination process. In the coming year, we will follow up these improvements with some new proposals to address those areas where the survey still indicates a need for improvement, mainly first-year graduate student mentoring and clarifying the General Examination criteria.

First, we will send more vigorous reminders to faculty to engage in mentoring activities for first-year students, and the faculty will be asked to report graduate student mentoring on their annual activity report. Second, even though students appear to understand our program requirements, we will ask the staff graduate student advisor to design a FAQ section on the graduate studies web page. Third, we will follow up the formal Fields Day presentations with a faculty-student reception where first-year students can informally converse with the faculty who are teaching next year's fields courses. Fourth, we will ask the incoming Graduate Program Director and the Graduate Studies Committee to consider ways to clarify the criteria for passing the General Examination.

Graduate Student Employee Appointments

The GSE appointment process is now prescribed by the GSEAC contract. The Department's policies implementing that contract are described on the Departmental webpage at

http://www.econ.washington.edu/instruction/grad/AcademicStudentEmployees.html.

Sixty-five students were offered funding in AY2003-04. Twenty eight (43%) received contracts of one year in length and 37 (57%) were funded with quarterly contracts. Forty-nine (75%) of the contracts were teaching assistantships, 3 (5%) were research assistantships, and 13 (20%) were fellowships.

The criteria for GSE promotion and salary increases are i) teaching experience and performance, and ii) completion of general examination.

Our graduate student instructors and teaching assistants are supervised by the course professor, a faculty TA coordinator, and by a lead TA. The lead TA observes all TAs twice a year in the Autumn and Winter quarters. The lead TA prepares a report on the strengths and weaknesses of all TAs. If a problem is detected, CIDR is contacted and the TA coordinator, the lead TA, and CIDR devise a remedial program for the TA. The lead TA implements the program and reports on the TA's progress to the coordinator. Reports by the TA coordinator, and CIDR, if it is involved, are sent to Graduate School once each quarter.

Teaching Assistants are prepared for their roles by the TA coordinator who conducts a credit seminar in the Autumn quarter—Economics 602, Teaching Introductory Economics.