## SIMON FRASER UNIVERSITY

# Senate Committee on University Priorities Memorandum 

TO: Senate

RE: Department of Economics External Review

FROM: John Waterhouse
Chair, SCUP
Vice President, Academic
DATE: November 6, 2003

The Senate Committee on University Priorities (SCUP) has reviewed the External Review Report on the Department of Economics together with the response from the Department and comments from the Dean of Arts.

Motion:
That Senate concurs with the recommendations from the Senate Committee on University Priorities concerning advice to the Department of Economics on priority items resulting from the external review as outlined in 5.03-110

The report of the External Review Committee for the Department of Economics was submitted on June 19, 2003 following the review site visit March 26-28, 2003. The response of the Department was received on October 2, 2003 followed by that of the Dean of Arts on October 27, 2003.

SCUP recommends to Senate that the Department of Economics and the Dean of Arts be advised to pursue the following as priority items:

## Faculty Recruitment and Retention

Specific areas of need for faculty hires have been identified and it appears that both the Department and the Dean are now taking measures to address the current needs. With respect to the issues raised about wage compression and inversion, SCUP recommends that the Dean and the Department work with the University to employ the retention and market differential funds to attract and retain highly qualified faculty.

## Research

With respect to the review team's recommendations around research and related activities, SCUP urges the Department to continue to seek ways in which to enhance its research capabilities via the effective use and deployment of
technology and personnel and to broaden its efforts and scope in seeking funding.

## Graduate Program

SCUP recommends that the Department's Graduate Committee monitor the implementation of the one year MA program and as well as continue its efforts to restructure the PhD program as suggested by the external reviewers. The option of hiring a placement officer should be pursued within the existing structures for the hiring of staff.

## Undergraduate Program

Previous measures that have been instituted to address the significant enrollment pressures in the undergraduate program appear to be inadequate to deal with this continuing concern in the Department. SCUP recommends that the Department and the Dean continue their discussions in this regard in order to undertake appropriate actions that will be of benefit to the students and the Department.

## Administrative Structure and Governance Issues

SCUP is satisfied that the Department is working to address the particular issues raised around committee responsibilities and roles.

## External Ties

SCUP urges the Department to work towards enhancing its interactions and ties with the Faculty of Business Administration, the Master's of Public Policy Program and the proposed new Faculty of Health Sciences. In addition, members of the Department should seek an increased service profile on university-wide committees. Finally, the Department, in conjunction with the Office of the VP Advancement, is urged to identify external sources of funding in support of scholarships, guest speakers and faculty endowments.
c: J. Pierce
G. Dow

# SIMON FRASER UNIVERSITY <br> Office of the Dean, Faculty of Arts <br> MEMORANDUM 

To: Bill Krane<br>Associate VP Academic<br>Subject: External Review: Economics

From: John T. Pierce<br>Dean of Arts

Date: October 24, 2003

## Dean of Arts' Response, Economics External Review

## Introduction

This is a very positive assessment of a Department that, if not now, in short order, will be among the very best in the country. The formula underlying this success can be attributed to strong leadership within the Department, strategic hiring and a collective vision regarding priorities and positioning vis à vis other comparable departments. But much remains to be done to enhance the stature of the Department. In this regard and with respect to the key dilemmas now confronting the department, I àgree with the Department's Response to the External Review (DRER) that there are a number of areas in which resources are insufficient to sustain the quality of the undergraduate and graduate programs and to sustain the growth in the reputational capital of the Department. In what follows I intend to comment upon what I consider to be the key or pivotal recommendations that if acted upon in a timely manner will secure the great promise forecast by the external reviewers (ER).

## Faculty, Recruitment and Retention

Recommendations 1, 2 and 12: I agree with the ER and DRER that the research and teaching programs would benefit from hiring a senior econometrician. I have already discussed the issue with the Chair and a search will be commenced shortly. It is also clear that future hiring will have to redress the imbalance between theoretical and applied appointments although I support the sentiments expressed in the DRER that flexibility in hiring must be maintained.
Recommendation 4: I believe that if the Department is to remain competitive in searches, the University must continue to upgrade its MD. At the same time there are wage compression and inversion issues that may require some finetuning of the MD policy. In particular, wage caps for senior faculty need to be revisited.

## Research

Given the success of the Department in hiring highly productive mid-career economists and their very favourable impact upon stimulating the research environment, I will continue to try and support this strategy on a selective basis. While the University must shoulder the cost of the MD, the Faculty must fund the difference between an aP4 and an Associate level appointment from our base budget.
Recommendation 6: While it is difficult to argue against this in principle, in practice, as the DRER points out, it is a very different matter. I believe that the new Tenure/Promotion guidelines will have to address the issue of citations and the balance between quantity and quality.
Recommendation 7: There is no question that there is considerable scope for the expansion in research funding sources and untapped potential to build endowments from alumni and other sources. My office will be working with the Department to lay the groundwork for improvements in both areas.

## Graduate Program

Recommendations 10,11 and 12: The Department has begun to make a number of changes to its graduate program that will shorten completion times and introduce greater clarity in requirements for completion of the PhD. An unresolved issue is the feasibility of a required econometrics course for PhD students. There are resource and other pedagogical problems to be sorted out. The addition of a senior econometrician and further deliberations by the Graduate Programs Committee will be required before there is a satisfactory outcome.
Recommendation 13: If the DRER supports the hiring of a placement officer the request for an additional staffing position will be added to other staffing requests and ranked according to its overall merits.

## Undergraduate Program

The DRER refers to enrollment pressures as "the most fundamental dilemma facing the department..." I would agree. Economics has done more than its share in absorbing additional students. The student to faculty ratio is the highest in the Faculty, if not the University, and the average class size at the third and fourth year levels well beyond any realistic norms. Within the next year the Department's faculty complement will have risen to 35 . Expansion to 38 is likely desirable but will require some redistribution of positions within the Faculty and/or support from the VP Academic. At some point, however, the Department may have to consider instituting tighter rationing controls--most likely through higher GPAs.
Recommendation 16: My office will be working closely with the Chair of Economics to determine the best course of action. I am sympathetic to the view that where possible, we need to try to accommodate student demand as opposed to funneling students into programs of lower preference.

## Administrative Structure and Governance Issues

Recommendations $17 ; 18$ and 19: The DRER makes it clear that a review is being conducted of various governance and faculty participation issues and I am sure that sensible reforms will occur. I would like to comment on one misinterpretation of faculty participation on a TPC by the ER team. At no time have faculty members who are being considered for Tenure and/or Promotion sat on a DTC or TPC. For purposes of salary review, however, faculty members are eligible regardless of their turn in the biennial salary review cycle. Excluding membership in a TPC because of a salary review is unrealistic.

## External Ties

The ER encourages the Department to maintain if not strengthen its ties with Business. Certainly in the area of undergraduate programming there is considerable overlap and potential for further integration. The creation of MPP and the new Faculty of Health Sciences will serve as important sources for research collaboration and cross appointments. Finally with respect to fund raising, the Department needs to work closely with the VP Advancement to identify possible sources of support for scholarships, guest speakers and externally funded faculty endowments.


John T. Pierce
JTP/rt
Cc: L. Summers, Director, Academic Planning
G. Dow, Chair, Department of Economics
T. Perry, Associate Dean, Faculty of Arts

Date: October 2, 2003

## To: Laurie Summers, Director

Academic Planning
From: Greg Dow, Chair
Department of Economics
Re: External Review Report

I am attaching a copy of the response from the Department of Economics to the External Review Report of June 2003. An electronic copy will also be submitted to your office.

If you need any further information, please let me know.
c: J. Pierce

# RESPONSE TO EXTERNAL REVIEW <br> DEPARTMENT OF ECONOMICS 

October 1, 2003

## 1. Introduction

The external review of June 2003 is a thoughtful document that accurately depicts the strengths of the economics department and the challenges it faces. We are gratified to see that "in terms of its current faculty complement, research productivity, and quality of teaching programs, the department is poised to become one of the top English-language economics departments in the country" (p. 2). This achievement reflects a good deal of hard work by faculty and staff, and continuing support from the university administration.

At the same time, further improvements can be made. As the reviewers point out in their introduction, we face exceptional undergraduate enrollment pressures, a high rate of faculty turnover due to retirements and recent net expansion, and a need to reorganize some aspects of the undergraduate and graduate programs. The reviewers have made a wide variety of helpful suggestions and we agree with most of them. Indeed, several recommendations have already been implemented or soon will be. Others need further study by departmental committees, or require consultation between the department chair and senior administrators.

This response is based on feedback received at a recent departmental meeting, comments to the department chair from individual faculty, and discussions among the chair, graduate chair, undergraduate chair, and departmental assistant. Although it has
not been possible to incorporate all of the opinions expressed, we believe this response is a reasonable summary of departmental thinking.

Before responding to specific recommendations, it may be useful to survey what we see as the key dilemmas now confronting the department. In one form or another, all imply a need for additional resources. Most of the points below were emphasized in our self-study report of February 2003 and further documentation can be found there.

## Severe undergraduate enrollment pressures create a strong need for continued growth of

 the economics faculty complement. We have the highest ratio of undergraduate FTEs to CFL faculty of any school or department at SFU (see Table 5.6 of the self-study report). Our average class size, at both the lower and upper divisions, far exceeds that of any other Arts department. We also rely on sessional instructors to teach about $50 \%$ of our undergraduate sections. Our expenditure per undergraduate FTE is among the lowest in Arts. Although we have grown in recent years from 28 to 32 CFL positions (with 35 planned for September 2004), to reach the FTE/CFL ratio for the Arts faculty as a whole we would need to have 46 CFL positions. The reviewers address these enrollment issues mainly by recommending an increase in the minimum CGPA needed to become an economics major. This could be part of the solution, but continued growth in faculty numbers is vital. Eventually the department may reach a size beyond which it would be unwise to grow, and remaining excess demand would then have to be handled by rationing student access. But the general opinion within the department is that the present expansion phase should continue for some time to come.Salarv and retention issues require continuing attention. This has several dimensions. First, the salaries we offer new PhDs must remain competitive. We have recently fallen $\$ 5000-7000$ behind the leading Canadian departments. If this persists, it will undercut our ability to attract the best young members of the profession. Second, rapid increases in starting salaries have created some inversions between assistant and associate professors that need to be addressed. Third, major retention problems are looming on the horizon due to the salary cap for full professors. One problem is that many people with substantially different cumulative research outputs are tightly clustered in the vicinity of the cap. A related issue will arise as today's associate professors are promoted and have large market differentials folded into their base salaries. This will lead to cases where the faculty member's salary is frozen for a number of years until the salary cap catches up, regardless of research, teaching, and service contributions in the meantime.

The department's operating budget must be increased substantially. At our last external review in $1992 / 93$, our operating budget was $\$ 100,250$. Following some fluctuations it was decreased to $\$ 87,788$ in $1996 / 97$, and has since been frozen at this level. At the same time, undergraduate enrollment has grown enormously and the department has had to absorb a number of unavoidable cost increases (including a recent doubling in the leasing rate for photocopiers). This has resulted in cutbacks to core scholarly activities such as the seminar series. We have also starved the seminar program to cover expenditures beyond the usual reimbursement rate for recruiting, which has been very intensive during the last few years. Chronic deficits in the operating budget appear to be inevitable unless the annual amount provided to the department is increased substantially.

We need a reliable funding source for distinguished short-term visitors. Unlike most of the leading Canadian departments, we have no regular source of funding to bring in highprofile visiting faculty for a few weeks or a month. This cannot be accommodated within the operating budget for reasons discussed above, and the temporary instructional budget can only be used for visitors who are prepared to teach for an entire semester. Even in the latter case, the reimbursement rates available through the TI budget are much too low to attract distinguished members of the profession. We need a predictable source of annual funding, separate from the TI budget, that can be used to cover airfare and a few weeks of lodging, perhaps once per semester. This would greatly enhance the educational experience of our graduate students. It would also provide our junior faculty with opportunities to see cutting-edge research, to network with senior people, and perhaps to begin research collaborations. Finally, it would dramatically raise the research profile of the department by showcasing the accomplishments of our own faculty to opinion leaders of the profession. These benefits are very significant relative to the modest incremental cost.

Having set the stage by summarizing the main challenges facing the department, we turn next to the numbered recommendations in the external review. For brevity we do not discuss all of the detailed suggestions throughout the text, but these will receive attention from the department chair and departmental committees. We also omit reference to some minor factual errors that do not affect the central conclusions.

## 2. Faculty, Recruitment, and Retention

The reviewers note that we have hired 13 new faculty in less than five years, and that these appointments have been of high quality. They observe that recent hiring has tended to emphasize microeconomic theory and that other areas need attention in order to maintain the balance required of a 'full service' department.

## Recommendation 1: An additional mid-career or senior econometrician should be hired as soon as possible.

We strongly agree and see this as our highest recruiting priority. Of the three core areas in economics (micro theory, macro theory, and econometrics), this is without a doubt the one most in need of strengthening. At present we have only one senior econometrician (Peter Kennedy). We recently hired twice in this area at the assistant level (Marie Rekkas and Simon Woodcock), but these are junior people who will not be able to raise our research profile substantially in the short run. Both of them would benefit from an additional senior colleague who could provide research advice and mentoring. The same is true for the wider group of faculty who do empirical research but do not specialize in econometrics (Ken Kasa, Krishna Pendakur, Jane Friesen, and Brian Krauth). The productivity of this group would be enhanced by opportunities to consult and collaborate with such a specialist. Apart from mentoring and research concerns, we need another senior econometrician to boost the credibility of our graduate program, especially at the PhD level, and to improve our capacity for graduate supervision in an area that is in
perennial high demand among students. The reviewers also propose that we introduce required econometrics courses at the PhD level (see recommendation 12). Virtually all good departments in North America have courses of this kind, but we cannot staff them on a regular basis unless a new econometrician is hired.

Recommendation 2: At least half of any net increase in the faculty complement over the next five years should be in applied areas.

We agree. The appointments committee recognizes that recent hires have been concentrated in microeconomic theory (although not exclusively so; for example, last year we hired one new PhD who specializes in econometrics and empirical labor, and another who specializes in development and finance). We realize that a top department must maintain an appropriate balance between core and applied areas, and that it must be able to staff a range of elective courses at both the undergraduate and graduate level. We also agree with the reviewers that an effort should be made to recruit more empirical researchers. However, as the reviewers point out, it is important not to impose rigid constraints on the precise content of the applied fields in which recruitment will occur. We need to retain the flexibility to recruit exceptionally promising candidates, whatever their particular research interests may be.

Recommendation 3: The University should act aggressively to prevent salary caps for full professors from causing retention problems in the Department.

We strongly agree. There has been a pronounced tendency for salaries to cluster close to the prevailing cap. This has led to cases in which faculty members with very different cumulative research outputs have almost identical salaries. Moreover, because market differentials have been increasing and are folded into base salaries upon promotion to full professor, we anticipate an increasing number of situations in which associates are placed above the salary cap when promoted. Although this does not lead to an outright reduction in salary, the salaries of these people will be frozen until the salary scale catches up, regardless of research productivity or other contributions in the meantime. Decoupling salary from performance in this way creates retention problems for highprofile researchers. Various solutions could be considered: raise the cap more rapidly, allow full professors to retain market differentials upon promotion while continuing to accumulate step increases in the usual way, or develop flexible ways of supplementing the base salaries of especially productive people. The department chair will consult with senior administrators to explore the range of options in detail.

## Recommendation 4: The Department and the University should ensure that the compensation of existing [faculty] members does not fall behind that of equally productive faculty hired more recently.

We strongly agree. Salaries for new PhDs in economics have escalated rapidly over the last five years, by roughly $30-35 \%$. Despite this difficult environment, we have been recruiting effectively through the use of market differentials (although last year we were about $\$ 7000$ below the salaries of the Canadian market leaders and $\$ 2000$ behind some
other prominent departments, a gap that may erode our ability to attract star junior candidates in the future). One consequence of the rapid rise in market differentials at the assistant and associate ranks has been serious wage compression within the department. Although there are no outright inversions between the associate and full ranks, there are a few instances in which associate professors hired before the recent run-up in salaries are receiving less than assistants hired in the immediate past. The department chair will meet with senior administrators to discuss how this problem can be remedied.

## 3. Research

The reviewers note that the department is strong in research, but that it is difficult to quantify this claim. The available published rankings (Canadian, North American, or world) are based on old data that do not reflect our recent hiring surge (almost half of our faculty have been at SFU for less than five years).

One key to our rapid rise relative to other Canadian departments has been a string of very strong associate hires (Gordon Myers, David Andolfatto, Ken Kasa, Anke Kessler, and Christoph Luelfesmann). Given the wage compression described in section 2 above, this strategy is not much more expensive for the university as a whole than hiring an equivalent number of assistant professors. However, it creates a nucleus of people with demonstrated track records who quickly improve our research profile. The recommendation to hire a mid-career or senior econometrician is in this spirit. We hope the administration will continue to support this strategy when exceptional associate candidates are identified in the future.

Recommendation 5: The department should designate a digital working paper coordinator with responsibility for maintaining its working paper series with RePEc. These series can be retroactive, so older [working] papers that still have value can be uploaded as well. The department should also begin monitoring outside interest in its faculty members' work. This monitoring can be helpful to future formal and informal assessments of the department's "influence upon the profession".

We already have a working paper coordinator as part of the normal committee structure, and will follow up on the suggestion that this person should be responsible for posting working papers on the RePEc database. The proposal that the department monitor outside interest in faculty research is addressed below.

Recommendation 6: More attention should be devoted to measuring the demand for the department's research (in the form of citations and downloads), instead of just the supply (the number of papers written or published).

We agree that citation counts and download requests are relevant information that should play a role both in salary reviews and renewal, tenure, and promotion cases. However, these sources of information are subject to biases and must be used with caution. For example, citation counts are probably much higher in some fields within economics than in others for reasons unrelated to research quality, such as a tendency for authors in certain fields to cite more papers on average. Concerns have also been expressed that

junior faculty could be disadvantaged if too much weight is put on this measure at an early career stage, that the lifetime output of senior faculty might be understated because citation databases fail to count citations from the 1970s or early 1980s, and that standard databases may omit some relevant publications. Since the university is in the process of adopting new written standards for tenure and promotion this fall, it seems best to address these matters within that context. The Tenure and Promotion Committee will consider guidelines for the use of citation data and will seek further input from interested faculty.

Recommendation 7: The department should make every effort to reach beyond the SSHRC for research funding. Future university emphasis on health policy might be exploited. Liaisons with US researchers can provide access to NSF funding. Other Canadian sources should be exploited to the fullest extent possible. Development opportunities should be explored collaboratively with the university as opportunities to encourage bequests from alumni grow with the aging of that population. Opportunities to encourage smaller gifts should not be ignored.

Some innovations along these lines are already underway. We hope to use the annual campaign aimed at economics alumni to finance part of the travel and lodging costs for high-profile visiting researchers, although this source is unlikely to be sufficient by itself. We plan to designate a member of the department to liaise with alumni and development officials at the Faculty and University levels. Working with university grant facilitators, this individual will identify and publicize promising sources of outside research funding.

Recommendation 8: Discretion should be exercised in deciding how and whether individual faculty need to be compensated with teaching credit for time spent advising graduate students.

There are clearly large differences in the time devoted to graduate supervision by faculty members. After gathering some data on this issue, the current chair decided that it would be unwise to make a general practice of giving teaching credit for graduate supervision, in part because a good deal of subjective judgment would be required in assessing the true amount of effort involved. Also, data on graduate supervision are regularly provided to TPC and are taken into account in the salary review process. However, the chair will continue to monitor the situation and may provide teaching compensation in exceptional cases.

Recommendation 9: The department should expand technology that supports research (and teaching) by acquiring digital sender technology and it should explore portable laboratories for experimental economics. The University should better integrate searchable bibliographic databases with digital library holdings.

We are currently able to scan documents in hard copy form, convert them to pdf format, and transmit them electronically. The department's computer committee will study the options for more advanced technologies of the kind suggested by the reviewers, which would of course require corresponding resources from the university. Although this sort of technology is undoubtedly desirable, in our view it is not the highest priority use for
incremental dollars. A much more pressing need is a larger operating budget that could be used to support a more robust seminar program, make up for recurrent shortfalls in the recruiting process, and cover unavoidable cost increases on equipment leases and similar items. Another priority is reliable funding to support distinguished short-term visitors. The computer committee will consult with the experimental economists in the department to discuss the suggestion for portable laboratories. The final part of this recommendation will be referred to our library representative, who will bring it to the attention of the appropriate library administrators.

## 4. Graduate Program

The graduate program has received a good deal of attention over the last two years, and some proposals made by the reviewers have been implemented or soon will be.

Recommendation 10: The department should implement the transition to a one-year MA program, with due consideration of the challenges posed by the resulting change in composition of the graduate economics community.

Many MAs in areas other than economics at SFU take two years to finish. However, all leading Canadian economics departments offer MA programs that take only 8-12 months. In an effort to stay competitive for good MA students, we have already restructured the program to facilitate degree completion in one year. The Graduate Program Committee is enforcing a requirement that MA students take three courses per semester, thus ensuring that students entering in September will complete all necessary coursework by
the following August. We have also created an all-course option for the MA program that can be completed in three semesters. With the approval of the Dean of Graduate Studies, this new option has been made available for the first time this fall. But as long as the TSSU contract guarantees five semesters of TA funding to MA students, those students who choose the traditional project route will have strong incentives to extend the project beyond the third semester.

Recommendation 11: Completion of the second-year PhD research paper should be required by the end of the summer following the second year of the program. Students should be encouraged to use this paper as the basis for their thesis prospectus. The prospectus should be presented in the fall of the third year in the PhD program. At the same time, a tentative PhD dissertation committee should be established.

All aspects of this recommendation are in the process of implementation. The necessary changes in calendar language will be considered by the Faculty of Arts and Senate this year, and should take effect in September 2004.

## Recommendation 12: The department should introduce required $\mathbf{P h D}$ courses in econometrics and mathematical economics.

This proposal must be considered in light of various tradeoffs: for instance, it would lead either to an increase in the total number of courses required for the PhD (thus possibly
disadvantaging us relative to other Canadian departments), or a reduction in the number of electives (thus creating problems for students who need to take field courses). The recommendation regarding econometrics courses was discussed previously in connection with our pressing need to hire a senior econometrician. As we noted earlier, it is almost universal among good departments to have (at least) a required two-course sequence in econometrics at the PhD level. At present, we have no such required courses, largely due to a staffing problem that must be rectified. As a stopgap measure, the Graduate Program Committee considered a proposal to make one econometrics course (Econ 837) required for the PhD . Even this step has resource implications because we have not usually had enough faculty in econometrics to offer this course on a regular basis. Although the GPC was clearly sympathetic to this idea, it preferred to wait for a more comprehensive series of proposals from the empirical and econometric researchers in the department that would address the entire set of graduate econometrics courses (both MA and PhD ). A proposal along these lines is currently under active discussion and will be considered by the GPC next semester. The recommendation for a required PhD course in mathematical economics is less problematic from a resource standpoint (several people can teach in this area, and one mathematical economics course is already available to all graduate students as an elective). The GPC will take up this issue next semester.

## Recommendation 13: There should be a placement officer who is distinct from the graduate chair.

We agree. Although the graduate chair and graduate secretary have been able to provide placement services for PhD students, where the numbers involved are fairly small, we can do more at the MA level. A separate placement officer responsible for both MA and PhD students would improve the situation substantially at the MA level while permitting the graduate chair and graduate secretary to focus on other tasks.

## 5. Undergraduate Program

The most fundamental dilemma facing the department is a need to cope with severe and persistent undergraduate enrollment pressures. As documented in our selfstudy report, in 2001-2002 our ratio of undergraduate FTEs to continuing faculty was the highest for any department or school at SFU. This imbalance between student demand and teaching resources grew steadily during the second half of the 1990s. Although our student/faculty ratio has now stabilized, it will take a long time for resources to catch up with the new pattern of student demand. This situation has strongly negative implications for teaching quality, including very large class sizes extending up to the 300 level and an excessive reliance on sessional instructors. The recent expansion in faculty complement has helped to mitigate these problems and is very welcome. Nevertheless, the reviewers' proposals for the undergraduate program must be read with this background in mind.

## Recommendation 14: The Department should increase the emphasis on, and visibility of, the honors program.

We agree, and regard the detailed suggestions in the review as a fruitful starting point. The Undergraduate Curriculum Committee is currently undertaking an extensive review of the major and honors programs, and the suggestions of the reviewers will be addressed in that setting. We will also consider reforms to the microeconomic and macroeconomic theory sequences, as well as new course offerings at the 100,200 , and 300 levels. The creation of such courses, made possible by recent net expansion, should help reduce class sizes and better match our curriculum to the interests of newly hired faculty.

Recommendation 15: The University should harmonize breadth requirements across economics and other disciplines from which economics usually draws highquality students for joint honors, or change of major.

The economics department has long had its own system of breadth requirements (involving courses in the humanities, the other social sciences, and the natural sciences) because such requirements were lacking at the university level. Assuming that university-wide breadth requirements are introduced as now planned, the need for a separate system of departmental requirements should disappear.

Recommendation 16: The CGPA required to declare an economics major should be increased, with the aim of ensuring that average class sizes in economics should be no greater than those in other high-demand programs in Arts.

This is the only recommendation in the review that explicitly addresses the undergraduate enrollment pressures described in the introduction and at the beginning of this section. Increasing the CGPA is one way to reduce class sizes, and more generally to improve the balance between student demand and teaching resources. However, this approach would decrease demand only at the upper division without addressing similar pressures at the lower division level. Moreover, any strategy of curbing student demand for economics, whether it involves an increase in CGPA requirements or some other policy, would push students toward programs that are less preferred from the student's perspective. One can therefore argue that it is better to shift resources toward programs in high demand, rather than rationing demand in popular programs while leaving resources where they currently are. An increase in the CGPA is appropriate in order to gain immediate relief at the 300 level, but it is questionable whether the entire burden of matching demand with supply should be placed on this particular policy instrument. The department chair will meet with the Dean of Arts to discuss what mix of rationing and resource shifts would be best in the longer term, and what this might imply about the long run size of the department.

## 6. Administrative Structure and Governance Issues

The reviewers raised a series of questions regarding the governance structure of the department. These were discussed at a recent department meeting. All recommendations of this type will be referred to an ad hoc departmental committee that will develop formal proposals for consideration by the department as a whole. We do not want to prejudge the outcome of that process here. In what follows, we limit the discussion to a summary of potential costs and benefits for each proposal.

Recommendation 17: The Department should consider delisting the chair of the department as an ex officio member of the Graduate Admissions and Graduate Program Committees.

The chair does not play a major role on the Graduate Admissions Committee, although he or she does review files for all applicants proposed for admission by the other committee members and occasionally recommends against admission. The benefit of the proposal is that the chair would have more time for other tasks. The cost is that the chair would have less information about the quality of the applicant pool, and be less able to intervene directly if an unusual problem arose. With respect to the GPC, the benefit is essentially the same: more time for other tasks. However, this committee only meets a few times per year and most preparation is done by the graduate chair. The cost is that the committee would be less well informed about resource constraints relevant for curriculum proposals, and about externalities involving other departmental activities (such as the undergraduate program). We suspect that whether the chair is an ex officio member of the GPC or not, he or she would want to attend its meetings.

## Recommendation 18: The Department should consider delisting the Grad and Undergrad Chairs as ex officio members of the Appointments Committee.

This proposal generated considerable discussion at a department meeting without leading to any clear consensus. Some faculty point out that the burden on grad and undergrad
chairs from their involvement with recruiting is large, especially during periods of intense activity as in the last few years. It can also be argued that since the grad and undergrad chairs tend to serve for several years in a row, they have disproportionate influence on hiring, and that delisting these members would create more opportunities for other department members to participate. One potential solution is to dilute the influence of the ex officio members by expanding the committee, but there are limits to this because a large committee is unwieldy and has difficulty making fast decisions of the sort that are sometimes needed during the recruiting process. On the other side, there are arguments that the ex officio memberships should be left in place. One view, which seems to have motivated this policy originally, is that the needs of the undergraduate and graduate programs should have an institutional voice in hiring decisions, and that it is not an adequate substitute to have the undergrad and grad chairs provide their input through memos or informal discussion. Relatedly, there may be a benefit from having a subset of the appointments committee with extensive administrative experience. As noted above, no resolution was reached on this question, and more discussion will occur in the run-up to a subsequent department meeting on governance issues.

Recommendation 19: The Department should consider the advisability of not allowing faculty members, other than the department chair, to sit on the DTC in years when their own performance is up for evaluation.

The general principle behind this recommendation is uncontroversial. The difficulties arise on the practical side. The DTC (now TPC) is already the hardest committee to staff

each year due to the unusual number of constraints imposed on its membership. These include university rules about representation by rank and gender, as well as the practice that faculty coming up for renewal, tenure, or promotion in a given year should not serve. Also, we cannot have departmental UTC representatives serve on the TPC. For reasons of this kind, the nominations committee has often had to ask faculty to serve on the TPC when all parties would have preferred a different set of committee assignments. Because half of the department is reviewed every two years, this recommendation would reduce the pool of potential TPC members from 32 to 16 in any given year, creating a risk of serious gridlock. It also implies that each faculty member would always be reviewed by people drawn from a constant subset of the department. However, less drastic measures could be adopted that are in the spirit of the proposal. One is to codify the practice that faculty under review for renewal, tenure, or promotion in a given year cannot serve. Another is to adopt the principle that the nominations committee should try to minimize the number of TPC members whose own performance will be subject to review.

## 7. Conclusion

The reviewers close with some comments on the linkages between economics and other units, both within SFU and external to it. We agree on the value of our connections with the Faculty of Business Administration, the Public Policy Program, and the strategic initiative to foster health research. We also agree on the value of collaborative research involving colleagues at other institutions (much research of this kind already exists), and on the importance of private sector support for departmental initiatives. One example of the latter is this year's lecture series on Evolution and Economics to be held at Harbour

Centre. This series of six lectures is sponsored by the Bank of Montreal and organized by Arthur Robson, our new Canadian Research Chair, with assistance from the staff of Continuing Studies. Finally, the reviewers recommend sending faculty members into the high schools to publicize the benefits of university training in economics. Although we have not taken this step, we are regularly involved in the outreach programs organized by the university administration, including an upcoming Open House at which high school students and parents will be invited to participate in experiments at our computer lab.

# External Review 2003, Department of Economics Simon Fraser University 

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## I. Introduction

The Department of Economics at Simon Fraser University mounts high quality undergraduate and graduate programs, performs valuable research, and has had a real impact on economics in Canada. It currently has 32 permanent full-time faculty positions, 53 M.A. and $21 \mathrm{Ph} . \mathrm{D}$. students and 1,023 FTE undergraduates. Its faculty members hold research grants from a wide range of sources, and publish at a good rate in high quality academic journals and other peer-reviewed outlets. The department is well administered, well governed, and relatively harmonious. It faces challenges from exceptional undergraduate enrolment pressures, a relatively high rate of faculty tumover due to retirements and expansion of faculty numbers, and the need to make changes in course and progression requirements at both the undergraduate and graduate levels. The department is well aware of its challenges and is responding effectively to the problems it faces. In our report we will make a range of recommendations. Most of these are much in keeping with current thinking in the department.

This review began with a Self-Study by the Department of Economics, which produced a comprehensive document covering all aspects of the department's programs and activities. We studied this material, and a set of documents provided by the University including the strategic plan, president's plan, and the three year plan for the Faculty of Arts. We then performed a three-day site visit, over the period Mar. 26-28, 2003, during which we met with the VP Academic, Associate VP Academic, VP Research, Dean of Grad Studies, and Dean of Arts, as well as faculty, staff and both undergraduate and graduate students in the Department of Economics. Everyone was extremely helpful and, while clearly very proud of SFU and its accomplishments, was very open about difficulties and challenges. At the conclusion of our visit we met with the VP Academic and four other senior administrators to provide an initial indication of our broadly favourable conclusions about the department and some of the key challenges we see facing it. On Saturday, March 29th the reviewers met at the Harbour Centre and agreed on the broad outlines of our recommendations. In the following weeks we created and exhanged drafts for the various sections of this report and engaged in discussion via email and phone contact until finalizing the report.

The terms of reference for our committee included six issues of particular interest to the University and/or the Department:

- How should the department manage pressures from undergraduate enrollment?
- How do the number, content, format, and variety of course offerings in the undergraduate program compare with other good North American departments?
- How can the department reduce typical completion times for the MA degree?
- How can the department better facilitate the transition from PhD coursework to thesis research?
- An examination of whether the current University policies regarding faculty salary and retention are sufficient to deal with internal and external pressures such as inversions, wage compression and increasing competition and if not,
recommendations on what additional measures the University would need to develop.
- How can the department enhance its standing as a leading department both within Canada and internationally?

We will deal with the first five of these points as they crop up in the appropriate sections of our report. The sixth issue, however, is an over-arching question that should be dealt with in general terms before going any further.

In terms of its current faculty complement, research productivity, and quality of teaching programs, the department is poised to become one of the top English-language economics departments in the country. For about the last 35 years there has been a very distinct group of four top (English language) departments in Canada: Toronto, Queen's, Western and UBC. They have been distinguished primarily by the high quality of their faculty and graduate programs. They have been "full service" departments, performing research and providing graduate supervision in all the core areas of economics and a broad range of applied areas. Typically, a talented Canadian undergraduate wishing to pursue graduate studies would be advised to apply to these programs, and to a set of strong international programs. The departments all enjoy strong reputations outside Canada and receive applications from excellent applicants from many countries wishing to pursue graduate studies in Canada.

In terms of size, all of these top departments have shrunk in the last fifteen to twenty. years. This has been partly the result of declining provincial support to the universities, and partly due to rising salaries that mean even a top Canadian university could not afford as many economists as formerly. Toronto is in a category of its own, having 50+ faculty members. Queen's, Western and UBC currently have complements of 28,32 , and 35. This means that SFU's economics department, with its complement of 32 members, is not obviously too small to compete with the top departments at the moment. However, Queen's seems to be a department in decline and not a good comparator. And Western is finding it extremely difficult to discharge its "full service" mandate with only 32 faculty members. Five years from now we do not expect that departments that are still in the top four will have as few as 32 members. An expansion of from two to four faculty members at SFU over this period would keep the department on-track to, ideally, join the top four Canadian economics departments by the end of the five years.

Historically, the top Canadian departments have all been strong in each of the three core areas of economics - - microeconomic theory, macroeconomics, and econometrics. They also have had strength in a good range of applied areas. SFU's department is strong in quality terms in each of the core areas, but does not have enough numbers at the midcareer or senior level in econometrics. Another non-junior econometrician needs to be found in order to provide sufficient leadership, mentoring, and graduate supervision.

Beyond the core areas, the department needs to restore some of the strength it has lost in recent years as a result of retirements in the applied areas. It would be a mistake to specify the fields in question too rigidly, but hiring needs to be done in at least some of
the following areas: industrial organization, intemational trade, international finance, economic history, labor economics, and development economics. It would be desirable to ensure that at least half of those hired in these areas were serious empirical researchers, since there is a strong need for enhanced PhD supervisory capacity in applied econometric work.

We also believe that in order to join the ranks of top Canadian economics departments some important changes are needed on the teaching side. The Honors program needs to be enhanced and more of its graduates should be placed in top graduate programs elsewhere. The M.A. program should be moved to a 12 month basis, in line with the general pattern in Canada, and completion of the Ph.D. needs to be accelerated. The course requirements in the PhD should be strengthened and steps must be taken to move students from coursework to research more effectively at the end of their second year in the PhD .

In order to be firmly established as a top Canadian department, in both Canadian and international eyes, the department needs to increase its profile and visibility. It needs to bring in distinguished outside faculty, including leaders in the profession on an international level, as short-term visitors. It should provide more support and encouragement for senior graduate students and faculty to participate in international conferences. Increased publication by faculty in top international journals should also be encouraged. Finally, continued strong efforts need to be made in the placement of graduate students.

## II. Faculty, Recruitment and Retention

SFU's economics department has been very successful in recent hiring efforts. As of September 2003, it will have hired a total of 13 new faculty since January 1999, including five associate professors and one Tier I Canada Research Chair. This hiring has been possible partly as a result of an increase in faculty complement from 28 in December 2000 to 32 for 2003-04, and partly due to a series of retirements. Those hired have been of high quality. The assistant professors are graduates of leading Canadian and U.S. graduate programs, with notable publications to their credit already in several cases. The more senior hires are all strong in publications and have received significant research funding. Prof. Arthur Robson, who will join the department in September 2003 as the Tier I CRC, is a very distinguished senior Canadian economic theorist.

Recent hiring has been somewhat unbalanced in that it has tended to emphasize hiring in microeconomic theory. The result is that SFU now has a strong theory group. For the next few years, unless there are faculty departures in this area, it will likely be advisable to focus hiring efforts in other areas.

In the coming years more faculty members will retire, and the department also hopes for a small addition to its complement. There will thus be additional hiring. Economists attracted to SFU in the past have generally been happy and have stayed for the long term.

If this pattern continues, once the current round of retirements comes to an end, and once the department has reached its steady-state complement, there may be a distinctly lower level of hiring. This means that the hiring done in the next few years is especially important. If there are imbalances in the current composition of the faculty, or special hiring needs, they should be attended to sooner rather than later.

There is broad agreement in the department, with which we strongly concur, that it is essential to hire another mid-career or senior econometrician as soon as possible. This is important for many reasons, of which two are most salient. A deficiency in the graduate program is that the PhD level econometrics course is neither mandatory nor taught very often. This has led to a lack of emphasis on econometrics that needs to be corrected. The other important reason for adding another econometrician at the Associate or Full Professor level is that there is a group of junior applied econometric researchers in the department who strongly feel the need for access to additional expert advice and mentoring. Thus we make the following recommendation:

## RECOMMENDATION 1: An additional mid-career or senior econometrician should be hired as soon as possible.

Beyond the core areas of the discipline, as we indicated in the introductory section, it is important for the department to be strong in a range of applied areas. Currently the department has no economic historian nor any specialist in development economics. Faculty numbers are also small in international trade, international finance, labor economics, and industrial organization. In order to attract the best PhD students, and to provide good service to those who come, it is important to have strength in a range of areas. Incoming economics PhD students often are not committed to a particular field of the discipline on entry. It is important to them to know that there is a good range of areas in which they can receive strong graduate supervision, so that they can move into the field where they find they are best matched and potentially most productive. For this and other reasons we suggest the following:

## RECOMMENDATION 2: At least half of any net increase in the faculty complement over the next five years should be in applied areas.

As is well-known, the market for academic economists is very competitive. Ambitious U.S. departments frequently look to Canada as a source of mid-career hires. U.S. Federal Reserve Banks, international agencies, universities outside North America, and other Canadian schools all are increasingly adding to the demand for economists. Further, the continuing wave of retirements in Canada and elsewhere, combined with rising university enrolments, are producing excess demand for academic economists. In this environment it can be expected that starting salaries for junior economists will continue to rise. It can also be expected that there will be an increasing frequency of outside offers to existing faculty members. A number of leading Canadian economics departments (for example, Queen's, Western, UBC, and McMaster) have suffered very badly from losses due to
outside offers. This is a problem that SFU, so far, has largely escaped. ${ }^{1}$ However, as its strong crop of recent junior and mid-career hires continue with their careers, they are likely to receive increasingly tempting outside offers.

Although they are behind those in the U.S., the starting salaries offered in economics at SFU are competitive with those at other leading Canadian schools. This has been accomplished through the use of market differentials, whose continued use is essential. As faculty members begin to move through their careers, they also can move up the salary scale at SFU relatively quickly if they are highly productive. This means that their salaries can be kept competitive, in Canadian terms, right through to the point of promotion to full professor. Where retention difficulties are likely to surface, if no change is made in salary practices at SFU, is at the full professor level. This is because market differentials are currently rolled into base salary on promotion to full, and even with the application of special merit steps it is our understanding that it is not normally possible for salary to rise above the top rung on the salary scale, currently $\$ 114,415$. Many full professors in leading Ontario economics departments currently earn significantly more than this amount. The advent of the CRC program has increased competitive pressures at the senior end. It is essential for there to be upside flexibility in compensation for highly productive full professors. In order to anticipate and forestall retention problems at the senior ranks we propose the following:

RECOMMENDATION 3: The University should act aggressively to prevent salary caps for full professors from causing.retention problems in the Department.

In a period of rising salaries, another difficulty that can readily emerge is that new junior hires come in at a higher salary than those hired in earlier rounds. On equity grounds, and again in order to ensure retention of the most productive faculty it is important to avoid such "inversions". Thus we suggest the following:

RECOMMENDATION 4: The Department and the University should ensure that the compensation of existing family members does not fall behind that of equally productive faculty hired more recently.

## III. Research

The SFU Economics department is strong in research, but it is difficult to say precisely how strong. Department ranking comparisons are popular in economics, but even the most recent efforts are based on affiliation in the period prior to the rapid build-up in faculty strength in the SFU department. Thus, for example, the well-known recent study by Kalaitzidakis et al. (2002) is based on publications in the period 1995-99, whereas the department's major hiring has occurred since 1999. SFU's unfavourable ranking in Kalaitzidakis et al., $12^{\text {th }}$ in Canada, is therefore a poor guide to the department's current

[^0]position. Coupé (2003), who uses the period 1990-2000 and a much larger set of journals, puts the SFU ranking at $9^{\text {th }}$. This is roughly consistent with earlier rankings, for example the Lucas, 1995, study for the period 1981-1990, which put SFU at $8^{\text {th }}$ or $10^{\text {th }}$ place in Canada depending on whether one took publications per capita or in total respectively. Both these recent rankings agree that the department placed behind McMaster and York, as well as Montreal and the traditional top four English-speaking departments. As a result of the recent strong hiring effort our view is that the department has likely passed both McMaster and York. If so, then it can reasonably be argued that among English-speaking schools, SFU probably now stands just below the "big four" departments. Part of our task in this section will be to see if this conclusion is consistent with other indications of the research achievements of the department.

In this section we also take a look at the "nuts and bolts"of research - - looking at such issues as funding, encouraging good research strategies, dissemination of results, and research facilities. In other words, we will examine the issue of how to maximize the research payoff with a given group of researchers.

We begin by highlighting a number of important points from the Self-Study Report. We then comment on those points and some related issues stemming from our own analysis of the data and our meetings with faculty members. Based on this context, we then itemize some suggestions for attracting additional resources for research, and for raising the research visibility of the department on the national and international stage.

## A) The Self-Study Report

## Publications:

Table 2.4 in the Department's self-study report documents the rank, years since Ph.D., number of journal articles (with subset in "top" journals noted), and other publications (with major books from prominent academic publishers noted). This is a valuable table. However, there is considerable variability in quantity and no adjustments are made for article length or co-authorship. While this evidence documents the supply of research papers and their success in being placed in major journals, it is necessarily an incomplete measure of the demand for this research and/or its social value.

## Research Funding:

Table 2.5 in the Department's report documents that 16 of the department's current faculty (out of 30 ) currently hold research grants. As the chart below indicates, in terms of individual projects, there is a strong preponderance of small grants. It is somewhat difficult to sort out the full attribution of current grant money, but it appears that about $\$ 226 \mathrm{~K}$ of this funding is from SSHRCC in some fashion and about $\$ 131 \mathrm{~K}$ is from other sources. The most substantial non-SSHRCC grant money comes from the Devoretz RIIM project and Heaps' Aquanet project. SFU economists are participants in a number of
very large on-going projects, including Arifovic's NSF grant, Devoretz' RIIM project, and Friesen's CFI grant.


## Research Opportunities versus Teaching Responsibilities:

The Department's report does not directly address the issue of the unequal weight of teaching and other responsibilities, and the possible implications of these differing burdens for research performance of faculty members. Faculty members have finite time to devote to their various responsibilities. To the extent that some faculty, for example, devote much more of their time than do others to the task of graduate student advising (by popular demand?), they are left with less time to pursue their own research activities.

## B) Conclusions from the Site Visit and External Data Sources

How well is the SFU economics department doing in research and how can it improve? These are vital questions. Unfortunately, as we mentioned above, published department rankings are not very helpful in judging performance since they do not take the sizeable recent hiring drive at SFU into account. We have therefore looked at other ways of getting a handle on performance, including doing a citation study whose results are reported in an appendix to this report. We also use two important research databases, the RePEc (Research Papers in Economics) and the ISI Web of Knowledge, to help assess the department's performance. And we discuss how better use of these databases, and other research tools, could help the department maximize its research potential.

## Publications:

There is much attention to journal rankings in economics, and departments that are attempting to raise their profile typically watch closely the outlets in which their faculty members are publishing. Efforts to have faculty aim at high quality journals may be made. In the past, journal rankings have tended to change rather slowly over time while the technology of journal publishing evolved only slowly. The future may be different. The department will need to be attentive to a number of features of the market for academic journals that may change the terrain of publishing in the decade to come. There has been a backlash among economists against for-profit journals that have been making large profits, and charge libraries very high subscription fees, with the help of the free services of authors, editors and referees. (See Bergstrom, 2001, as well as related materials on Bergstrom's website at http://www.econ.ucsb.edu/~tedb/Journals/mypapers.html.)

Part of this backlash has been the introduction of purely electronic journals. These journals advertise quick turnaround, incentives for prompt reviewing, and "cascading outlets," in the sense that an author can submit a paper and the editors decide which journal, within their hierarchy of journals in that family, is the appropriate place for publication. The author need not send the paper sequentially to successively lowerranked journals until it finds a home.

The Berkeley Electronic Journals are the prime example of this new publishing framework. Many researchers are somewhat reluctant to cease participating in conventional publication, but electronic publishing seems unavoidable in the face of increasing costs of conventional journal distribution and storage. Like all other economics departments, SFU will need to plan ahead for how the new generation of electronic publishing will influence the way it "counts" faculty research output.

It is common to measure the research output of a department in terms of publication counts. This pre-supposes that all papers have equal impact. The review committee notes that there are other measures besides paper counts that can provide a picture of research productivity in a department. There is great variability in the longterm impact of papers placed even in the top academic journals.

To aid in distinguishing important papers that make significant contributions on topics of broad general or specialist appeal, it can be helpful to assess the demand for a department's papers, not just the supply of them. We will outline two readily available means of demand assessment: The RePEc database for working papers and the ISI Web of Knowledge database for published papers.

## RePEc Registration and Data

As for most other economics departments, SFU's departmental working paper series is archived with RePEc. In addition, as of April, six faculty members were registered individually with RePEc:

1. David Andolfatto
2. Jasmina Arifovic
3. Kenneth Kasa
4. Brian Krauth
5. Steeve Mongrain
6. Nicolas Schmitt

The presence of faculty names and interests in searchable databases increases the chances that their work will be discovered by others working in similar areas. Registration can be accomplished at http://authors. repec.org/ Registration allows researchers to be connected with their working papers made available over the web. http://repec.org/ RePEc (Research P'apers in Economics) is a collaborative effort of over 100 volunteers in 30 countries to enhance the dissemination of research in economics. The heart of the project is a decentralized database of working papers, journal articles and software components. Any institution is welcome to join in contributing its research materials and all RePEc material is freely available. Each department can designate their working paper coordinator to post .pdf versions of department working papers to RePEc. This service has essentially supplanted the old process of mailing out hard copies of working papers to other institutions.

When the department's working paper series is entered into RePEc, each registered faculty member can receive monthly reports on the number of abstract views and the number of paper downloads, and the department as a whole can access statistics on the amount and type of activity concerning each of the papers in the department's entire working paper series.

The RePEc database not only makes pre-publication research more accessible to other researchers around the world. It also provides feedback to individual faculty members and to the department as a whole about the degree of outside interest in individual research papers.

The department needs a working paper coordinator. Before the digital age, this person was responsible for mailing photocopies of working papers to other institutions. The modern counterpart to this responsibility is responsibility for submitting copies of working papers in .pdf form to online digital working paper archives. We suggest the following:

RECOMMENDATION 5: The department should designate a digital working paper coordinator with responsibility for maintaining its working paper series with RePEc. These series can be retroactive, so older worker papers that still have value can be uploaded as well. The department should also begin monitoring outside interest in its faculty members' work. This monitoring can be helpful to future formal and informal assessments of the department's "influence upon the profession".

Some departments go so far as to establish a "prize" (sometimes very trivial) for the working paper with the most abstract views and the working paper with the most downloads each month. (Hits and downloads can be manipulated, so the information they provide must be used with discretion.) However, such a gimmick can raise consciousness concerning the fact that research papers can have social value only if other people actually know about them and read them.

## ISI Web of Knowledge database

RePEc concentrates on providing working papers and measuring the extent of interest in these working papers. The ISI database is a source of different information about the impact of research. It is the successor to the old hard-bound Social Science Citation Index. This source documents citations in published journal articles to works by individual authors. The database allows individuals to entertheir own names and to search for all published papers which have cited their work.

At different junctures in a researcher's career, it is appropriate to assess the impact that the individual has had upon the profession. It must be acknowledged that some citations in published works are strategic, begin designed to enhance the chances that the cited author will be selected as a reviewer. Or, some citations are generated when reviewers recommend that a particular paper be cited. While citations are a noisy measure, they are at least correlated with the "impact" measure that is desired. Large numbers of citations generally point to a paper that has influenced the thinking of a large number of other researchers.

In an appendix to this report, we have undertaken a search of this database for each of the 30 full-time tenured members of the department with an appointment in the 2002-03 academic year. (Note that this excludes the new Tier I CRC appointee, Arthur Robson.) This search was crude and somewhat limited. It is intended to be exploratory and illustrative. Our goal was to identify individual papers that might qualify as having been "widely cited" (i.e. receiving more than 5 citations to date) and incidentally to highlight those department members who have contributed published papers meeting this criterion. A more refined exercise of this type should be performed regularly in the department in our view.

There is acknowledged to be an exchange rate of sorts between publishing a small number of very highly cited papers, versus publishing a larger number of less widely
cited papers. Thus, our tabulation identifies the year and journal for each paper and the number of citations, for each faculty member.

It is important to recognize that this cursory assessment of citations in the published literature should not be used as a basis for ranking individual faculty members within the department. It is intended only as an overview of the apparent collective success of current faculty members in reaching the larger audience. For interpersonal comparisons, it would be essential to have each individual faculty member search their own citations, to be sure that important co-authored papers (or papers by individuals with similar names in unconventional journals) have not been missed. As in the old hardcopy SSCI, early ISI citations were indexed only by the first author. More recent citations include all authors.

Bearing in mind these caveats, what does our citation count show? In total 144 publications show up, of which 93 appeared prior to 1993 and 41 since. Of the 30 faculty members eligible for this count 24 had at least one publication with five or more cites and 16 have publications since 1993 that have received this level of recognition already. Finally, while the top five faculty members produced 63 of the 144 publications in the table, junior people are already beginning to build strong records. Overall, this is evidence of an active group of researchers whose efforts have had genuine impact.

Our tabulation of ISI citations highlights those papers appearing in print since 1993, the year of the last external review. This emphasizes the apparent demand for specific papers published since the last review. This is admittedly a snapshot. To gain an appreciation of how the department's research output influences other researchers over time, a "moving window" would be more appropriate.

Economists know that the market values of goods are determined by the interaction of supply and demand. In keeping with this insight and the above discussion we suggest the following:

RECOMMENDATION 6: More attention should be devoted to measuring the demand for the department's research (in the form of citations and downloads), instead of just the supply (the number of papers written or published).

## Research Funding:

The department's researchers could benefit from a concerted effort to widen the base of agencies and foundations from which they seek research funding. Research funding constraints are more binding in Canada than in the US. However, it may be possible for faculty to take better advantage of SSHRC's major research grant programs - - Major Collaborative Research Initiatives, Strategic Grants, Joint Initiatives, and programs like the now-completed Initiative on the New Economy, as well as other Ottawa-based funding opportunities.

The prospects for attracting foundation money may be improved if the campus is successful in establishing its Health Policy program. Sources such as the Donner Foundation or the Canadian Institutes of Health Research (CIHR) may have funding that could be attracted to SFU if it develops greater health policy expertise in economics. Labor economists and applied econometricians probably have the greatest overlap with the interests of foundations concerned with health policy. Given the challenges facing Canada's provincial health plans in the coming years, it would be astute for SFU to nurture some expertise in the economics of health policy.

The department already benefits to a certain extent from the Centres for Excellence (NCEE) (for example, Aquanet). Other opportunities may be available through the BC Knowledge Development Fund, although this program only covers capital projects and requires matching funding from the CFI or other sources.

The economics department should discuss with the University's development office opportunities for obtaining modest amounts of ongoing funding to support researchrelated programs. Individuals who may not have the resources to endow an entire faculty chair may be willing to endow:

1. a prize for the most promising paper by a Ph.D. student or junior faculty member;
2. a graduate or junior faculty award in a particular research area that would buy out the student's teaching obligations for one or more terms to facilitate research;
3. special (competitive) travel awards that would permit junior faculty to line up a series of seminar visits at several universities on the east coast at a critical juncture in their careers. This can enhance their visibility among key researchers who are likely to be writing tenure letters for them. Such funding would mean that it would no longer be necessary for the faculty member to wait for one invitation before arranging others that could share the costs.
4. a seasonal seminar series on a particular broad topic in economics (this could be a substitute for the regular departmental seminar for a set period each year);
5. an annual "big name" public seminar by a researcher who would have other synergies with the department during their visit;
6. travel expenses and lodging for a short-term visitor (for just one or two weeks with an obligation to deliver a short course to graduate students and interested faculty)
Major public universities in the US are being more and more creative in identifying things that can bear a donor's name.

Summing up our suggestions for research funding initiatives, we suggest the following:
RECOMMENDATION 7: The department should make every effort to reach beyond the SSHRC for research funding. Future university emphasis on health policy might be exploited. Liaisons with US researchers can provide access to NSF funding. Other Canadian sources should be exploited to the fullest extent possible. Development opportunities should be explored collaboratively with the university as
opportunities to encourage bequests from alumni grow with the aging of that population. Opportunities to encourage smaller gifts should not be ignored.

## Research Opportunities versus Teaching Responsibilities:

It is often suggested that faculty with a heavy load of graduate advising should be excused from some portion of their conventional classroom teaching responsibilities so that they are not at a disadvantage in producing their own research papers. In our discussions with faculty members in the department we found some sentiment in favour of introducing such differential assignments, which have so far been absent. This is a reasonable proposal, but it should be applied on a case-by-case basis. Each case is unique, for example because some types of graduate student advising lead naturally to jointly authored papers by the faculty member and the advisee, so that there are strong complementarities between advising and faculty research output. In these cases, it is sometimes questionable whether the faculty member merits a reduction in their standard courseload because of advising activities.

In other cases, notably for faculty who bring to their advisory tasks a toolkit for general application, the graduate advisory role is mostly a substitute for the individual's own research output. Applied econometricians are particularly vulnerable on this count. They may serve as the "nth" member on numerous committees for Ph.D. dissertations or master's theses. The committee chair is often some other faculty member who specializes primarily in theoretical research in the student's topic area. The committee chair is more likely to be a co-author on papers published from the dissertation or thesis. The applied econometrician's input is not typically compensated in this fashion when it is "only" of a consulting nature on the technicalities of implementing an estimator, or choosing an appropriate stochastic model, or explaining the right commands in the right software package. Still, the time spent in this role can really add up, especially when there are too few faculty with these skills in a department.

We make the following proposal:
RECOMMENDATION 8: Discretion should be exercised in deciding how and whether individual faculty need to be compensated with teaching credit for time spent advising graduate students.

## Research Technologies:

Digital sending: The review committee notes that the department does not yet seem to have the technical capability for converting paper documents directly to digital form (.pdf files). Adobe software is now widely used to convert materials that are already digital into .pdf form, but the department could benefit from having the capability to convert non-digital documents into portable digital form. Many recent-generation photocopiers now offer fax capability and some also advertise conversion to .pdf. Stand-alone technology has been available for several years with HP's Digital Sender.

These technologies can facilitate distance transmission of hand-written examination papers to faculty members who are not physically present on campus. Features such as a sheet feeder and automatic delivery as an email attachment (to be forwarded to recipients) facilitate this process and provide automatic digital back-ups that are not typically created by conventional fax transmissions. Digital sending technology also allows infrequently used paper documents (such as old working papers or other archived departmental records) to be stored on CD rather than in paper copies, saving considerable amounts of conventional filing space. Another popular use for the technology is for the transmission of marked-up drafts back to students. The faculty member can retain the marked-up original or the digital copy and simultaneously transmit the annotated copy to the student.

Portable laboratories: The review committee noted the desire of the experimental economists for larger and more-permanent space to be dedicated to the running of economic experiments. The committee notes that permanent laboratory space may become an antiquated and inefficient use of scarce university space with the advent of portable laboratory technology. Laboratory workstations are being replaced at some institutions by hand-held PDAs (personal digital assistants) and wireless technology that connects them to a high-powered laptop (in place of a conventional hard-wired server). The space-consuming arrangement of carrels used to separate experiment participants can be replaced by folding desktop partitions that allow experiments to be run in any room with tables. As the technology becomes cheaper, and many different physical spaces can be configured to accommodate experiments at different scales, the need for dedicated lab space goes away. This new technology means that an institution can initiate a program in experimental economics well before the volume of experiments is sufficient to justify dedicated lab space.

ISI database/digital library/bibliographic software integration: Some of the most powerful integrated research tools to evolve during the last decade are a result of the monopolization and vertical integration achieved by ISI. The company that manages and leases access to this database also now owns Reference Manager, ProCite and EndNote software. There are likely to be pricing consequences from this integration, but there are also numerous benefits. Inventories of research can be assembled and processed into usable formats very quickly (for research, or for course preparation). At many major universities in the US, the ISI database is also linked to library subscriptions to electronic joumals, including backfiles, so that the user need only find a paper in the ISI database and click a "library holdings" icon and have the paper instantly downloaded to their desktop for printing or archiving in a digital filing system. The path to the paper's location can be stored as an additional field in the bibliographic software, making it much easier to find those documents. E-reserves at institutional libraries can also store these documents for secure and restricted online access by course participants in much the same way as paper copies of journal articles used to be made available to students for "fair-use" copying.

The review committee established that SFU subscribes to the ISI Web of Science database, but only back to 1985 (the backfiles continue until about 1974). There does not
appear to be much in the way of "library holdings" links to digital subscriptions, however. Faculty must still find their way to library copies of journal articles in order to read beyond the abstract. Integration of library holdings of digital journals with the ISI interface represents a valuable public good for all university faculty, not just one department. The Economics department could add its voice to encouraging this transition.

Summing up, we suggest the following:
RECOMMENDATION 9: The department should expand technology that supports research (and teaching) by acquiring digital sender technology and it should explore portable laboratories for experimental economics. The University should better integrate searchable bibliographic databases with digital library holdings.

## IV. Graduate Program

We begin this section by noting what the Self-Study report had to say on some key issues concerning the graduate program. We then provide our response and our own view.

## A) The Self-Study Report

## 1. The One-Year MA Program.

The department recognizes an apparent need to make its MA program more competitive with other programs available at comparable institutions in Canada. It has already established that the actual time burden for students does not preclude a one-year program. The graduate program has already been shifted to a three-course-per-semester norm (e.g. 3 courses in Fall Semester, 3 in Spring Semester, and 2 in the summer term).

## 2. The Ph.D. Program

Time-to-degree: The department plans to reduce the time to the comprehensive examinations.

Second-year paper requirement: The department plans to accelerate the transition of students from a coursework orientation to a research orientation. Our understanding is that it would like to institutionalize the second year paper by requiring its completion by the end of the second summer and encouraging students to have this paper form the basis for their dissertation prospectus. This prospectus would be presented for the first time during the fall of the student's third year in the PhD. program. At the same time, a tentative Ph.D. dissertation committee would be established.

Presentation opportunities: The department recognizes that PhD. students would benefit from more opportunities to present their research and to hone their presentation skills.

Course Requirements: The department notes that it would be very desirable to institute required courses in Econometrics and Mathematical Economics beyond the minimal MAlevel requirements in these two areas.

Placement: Placement of MA and Ph.D. students from recent classes is not documented in the Self-Study report.

Language Challenges: Language problems have been a major challenge for some international graduate students in the past. This is a standard concern in North American economics departments, but in the SFU case it is especially important in view of the heavy use of graduate students as tutorial leaders.
B) The Review Committee's Responses

## 1. The One-Year MA Program.

The Review Committee supports the move to a one-year MA program in economics. However, since the teaching role of MA students at SFU differs from that at other institutions due to SFU's tutorial system, it must be recognized that this cannot be done simply by replicating other one-year MA programs. In particular, coursework will be spread more evenly through the entire 12 months of the program than elsewhere in Canada. The twin objectives would be to achieve greater throughput of MA students for the same allocation of resources, and to make better use of the students' time by halving the duration of this stage of their studies.

Current Ph.D. students interviewed by the review team felt it would be feasible to implement a one-year MA program, given the existence of some slack in the current twoyear MA program.

With a shift to a one-year MA program, it will be important to pay attention to the implications for the mix of MA and Ph.D. students in the program. If MA throughput increases, MA students would become more transitory since there would be no "overlapping generations" of MA students, only those MA students who continue in the Ph.D. program. Implications for the community of graduate students will need to be considered. This shift will be overlaid upon systematic shifts in the geographic pattern of Ph.D. applications (e.g. increasing applications from the People's Republic of China and increasingly competitive English language skills for these students).

RECOMMENDATION 10: The department should implement the transition to a one-year MA program, with due consideration of the challenges posed by the resulting change in composition of the graduate economics community.

## 2. The Ph.D. Program

Time-to-degree: All departments must continually work against a natural tendency among students (and sometimes their advisors) to postpone examinations in order to improve performance on those exams. Keeping these times down requires constant vigilance and tangible consequences for failing to achieve mileposts in the program in a timely fashion.

Second-year paper requirement: The review committee concurs with the department's plans:

RECOMMENDATION 11: Completion of the second-year Ph.D. research paper should be required by the end of the summer following the second year of the program. Students should be encouraged to use this paper as the basis for their thesis prospectus. The prospectus should be presented in the fall of the third year in the Ph.D. program. At the same time, a tentative Ph.D. dissertation committee should be established.

Presentation opportunities: The committee suggests that the graduate chair collaborate with the graduate student association to take joint responsibility for organizing serious research-related activities, rather than just social activities. Such activities could include brown-bag lunches, field orientations, and pro-seminars (less formal than regular departmental seminars and carrying lees of an expectation of completed research results):

In some other Ph.D. programs, -graduate students find that the younger junior faculty can contribute very helpfully to an informal lunchtime workshop since these faculty may be less threatening to Ph .D. students as they present very preliminary research ideas and argue the importance or policy relevance of their work. Junior faculty can also gain valuable practice presenting their initial results in a forum that may be less consequential than a seminar in front of the assembled full faculty.

In recruiting Ph.D. students to the different fields for their second-year coursework, the graduate student associations at some universities have also been very successful in lining up lunchtime presentations by groups of faculty teaching in particular fields. These presentations can take place near the end of the Spring term, when students are still trying to decide upon which research areas most appeal to them. These "Field Lunches" can provide a valuable opportunity for first-year students to hear a pitch from each field and to ask questions about career opportunities, placement prospects, and synergies with other fields.

There should be regular opportunities for third- and fourth-year Ph.D. students to present their work to each other and to faculty. Course credit for participating in a workshop and giving one workshop per term (twice per year) can be a useful incentive. Some departments experiment with "double-feature" workshops. Two graduate students can each give a 45 minute presentation, or the entire workshop can be scheduled for two hours, rather than 1.5 hours, to allow for one-hour presentations for each student. After

the core theory sequence, all graduate students should be enrolled in at least one formal (or informal) workshop.

The graduate chair and graduate secretary need to enforce presentation requirements. The rules can be given "teeth" by defining them as part of normal progress towards the degree. Enforcement will be time-consuming. Ph.D. students are apparently entitled to eight semesters of support, given the constraints of the TA Collective Agreement. Within this constraint, the department should exploit whatever opportunities might be available to build in incentives for compliance. These incentives could be "punishments" or "inducements." If there is any opportunity to associate a continuous (rather than lumpy and intermittent) marginal benefit with earlier achievement of program mileposts, these incentives can be very successful.

Course Requirements: The review committee strongly agrees that the department should institute required courses in Econometrics and Mathematical Economics:

RECOMMENDATION 12: The department should introduce required PhD. courses in Econometrics and Mathematical Economics.

These requirements would permit much more rigor in papers and dissertations. By making the program more rigorous along these dimensions, students will be better equipped to do first-rate empirical and theoretical research, and they will then be better able to compete for jobs. Greater sophistication in the econometric and theoretical research done by its graduate students will improve the reputation of the graduate program and the department. Higher achievement in these areas will also increase the opportunities for fully collaborative research between graduate students and faculty, so there can be benefits in terms of total departmental publications.

However, these additional course requirements also have strong implications for staffing requirements. If these courses are no longer optional, their scheduling becomes less flexible and the department must have sufficient personnel to cover leaves and other absences. This proposal reinforces the identified need for at least one additional senior econometrician in the department.

## Placement:

## RECOMMENDATION 13: There should be a placement officer who is distinct from the graduate chair.

Attention to placement is needed not just for Ph.D. students, but for MA students as well. There could also be better tracking of the placement history of past Ph.D. and MA students. The placement officer could take on the responsibility for early intervention with prospective placement candidates, setting recommended deadlines for first drafts of job-market papers and holding informational meetings for placement candidates. This individual could also be in charge of scheduling mock interviews for each placement candidate. These mock interviews represent a very valuable chance for the faculty to
evaluate how the candidate will play in a professional setting. Early enough assessment can allow time for simple remedial work in terms of cultural conventions (the "handshake" problem, how to address prospective employers, and so on). Candidates are also sometimes naïve about implicit dress codes and other aspects of the "corporate culture" of academic and non-academic economics that many faculty take for granted.

Language Challenges: The department reports that careful attention to graduation dates for candidates from the PRC can help to ensure that incoming students from this source are fluent in English, since recent classes have been exposed to English training for the majority of their academic careers. The admissions process now also involves personal telephone calls to candidates to directly assess their fluency before they are admitted to the program.

SFU currently offers a summer "bridging" program that helps incoming graduate students achieve sufficient fluency in English to be successful in the context of their tutorial responsibilities. We were told that the department may look into the possibility of a separate bridging class designed especially for Economics MA (and perhaps Ph.D.) students. These students could take this course during the summer prior to their first year. Such a program could mitigate the lesser language practice for non-native English speakers that would accompany the shift to a one-year MA program. It could simultaneously improve the tutorial teaching experience for graduate students and undergraduate students, and enhance placement prospects for graduate students when they complete the program. This proposed "bridging" program seems useful. However, if the supply of admissions candidates from the PRC who are already fluent in English is indeed increasing quickly, the program may only need to be temporary.

## V. Undergraduate Program

We begin by re-emphasizing some of the key points in the Self-Study Report and then compile a list of related issues that arose in meetings with faculty, staff and students during our three-day visit to the campus. Against this backdrop, we outline what might be done to alleviate some of the problems facing the undergraduate program and then proceed to list specific recommendations.

## A) The Self-Study Report

We note the following points particularly from the Self-Study Report's material on the undergraduate program.

1. The Department of Economics and the Faculty of Business Administration were originally joined and the remnants of their union are still evident, e.g. in the Econ 333 econometrics course. The admission requirements for the Faculty of Business degree are higher than those for economics majors and many economics undergraduates believe they would prefer to be in the Faculty of Business.
2. About one-third of those who eventually graduate as economics majors enter SFU from associated community colleges at third year. A number of these students are weaker than those who have completed their economics courses at SFU. To achieve some degree of uniformity in theory training, microeconomics and macroeconomics courses that would normally be offered in second year at other universities are offered only in the upper division third and fourth year (see pp. 44-45 of the Self-Study Report). Two consequences are that second-year economics courses carry only a first-year economics prerequisite and the third and fourth year of majors/honors programs are filled with compulsory economics courses. Whereas honors students in other economics programs typically take four semesters in each of micro and macro theory, SFU students currently take only three semesters.
3. Economics' share of Arts degrees granted rose from $14 \%$ in 1992-93 to 19\% in $2001-$ 02. The FTE percentage for economics relative to the entire university grew from $5.9 \%$ to $6.5 \%$ between 1992-93 and 2001-02. More importantly, average class size in economics has grown from 67 to 92 over this period. Over this period the next highest average class size was 83 for psychology in 1992-93, and in 2001-02 the 92 for economics contrasts with 74 - the average class size in the next three highest departments.
4. Despite the large number of economics majors, the honors program is small - only five graduates in 2001-02.
5. In 2001-02, 56\% of lower division courses and 43\% of upper division courses were taught by sessional lecturers.
6. Most economics departments in Canada offer courses with three contact hours per week; sometimes one of the hours is a tutorial. Simon Fraser is unusual in that some courses, including the core third-year micro and macro courses, have more than three lecture hours. And, in addition to these lecture hours, all courses have tutorial hours. Operating this system requires a large number of TAs, most of whom are economics graduate students.
7. Turnaways are common for core 100 and 300 level courses (see p. 42 of the Self-Study Report).
B) Site Visit and Further Observations on the Undergraduate Program

Meetings with faculty, staff and students over the three-day visit confirmed the above points. In the course of our discussions, we noted a number of further points that we would like to emphasize.

1. There are some very good undergraduates who come from the community colleges and who enter SFU after second year. One would not want to reduce their access to the honors program.
2. As we observe in the graduate section of this report, foreign student TAs not only may have a different mother tongue but may come from different cultures. A term at SFU to strengthen their English-language skills and to acclimatize them to Canada probably would help them and the students they teach. Teaching assistant quality was an issue for undergraduate and graduate students and faculty.
3. Course evaluations are given considerable weight in the decision of whether or not to reappoint sessional lecturers. We heard from some students some sessionals mark easily until the course evaluations have been administered and then surprise students with a tough final exam.
4. Sessional lecturers who do not conduct research in the areas they teach may not always be able to motivate students to the same extent as regular members of faculty.
5. Marketability of economics students depends not only on their knowledge of the subject but also their writing skills. We learned of the department's intention to introduce a number of writing-intensive courses to build such skills as part of the University's plans to require all students to take a minimum number of writing courses.
6. The newly created PPP and CRABE units could open up new opportunities for economics students. PPP's CRC nominee, Jon Kesselman, is one of the leading tax experts in Canada. We realize that only a small part of the time of a CRC can be devoted to talking to undergraduates, but undergraduates would certainly benefit from Kesselman's knowledge of Canada's tax and transfer system, and associated policy issues. In addition, if PPP is able to hire a health economist such a person could teach health economics courses to undergraduate as well as graduate students. Most economists would agree that experimental economics offers students a clearer understanding of how markets function than the standard textbooks. Undergraduates should continue to have access to CRABE's lab.
7. Most honors programs in Canada require four semesters each of micro and macroeconomic theory as well as three semesters of statistics/econometrics. This is not the case at SFU and both students and faculty thought the theory and econometrics requirements for the honors program should be strengthened. The review committee agrees.
8. Raising the CGPA required for economics majors would help ease the enrollment problem.
9. The new CGPA formula for students entering SFU from the colleges, which takes effect in September 2004, should help weed out some of the weaker students who might otherwise have entered the program.
10. The co-op program places 50 students per year and is running very well.
11. As we observed in the introduction, the workload of the undergraduate chair and the department's administrators appears to be high relative to the demands in other economics departments.
12. The non-major courses required by each faculty should be harmonized across faculties or at least the differences between arts and business should be reduced to make it easier for students to transfer between economics and business.
13. Economics 301 and 305 should be required for the math econ course (Econ 331) to prevent math students from using Econ 331 as an easy elective and creating a bimodal class composition that makes it difficult for instructors to target the course material appropriately to the economics audience.
14. With so many required courses for majors and honors bunched in the last two years students have little room to take the upper division electives that broaden their perspective on the field and may increase their interest in graduate studies in economics.
15. A strengthened, better-defined and better-advertised honors program might attract more students of higher quality and help build the reputation of the department in graduate programs at other major universities in Canada and the U.S.

## C) Discussion of Possible Strategies for the Undergraduate Program

What changes might reduce or eliminate problems with the undergraduate program? We begin with some general observations and then move to specific recommendations.

SFU's tutorial system makes the interdependence between the graduate and undergraduate programs higher than it is at most other universities. Changing one program may have substantial consequences for the other so one must be very cautious in making changes. Economists are famous for drawing attention to unintended effects of policymakers' actions and this is clearly an instance where we should heed our own advice. In our view, addressing all of the issues raised above cannot be done in one fell swoop - change must be an iterative and adaptive process.

Resource constraints are tight and first-best solutions are ruled out. For example, the SelfStudy Report states that the department would have to grow from 32 members to 46 to reduce average class size in economics to the average for the Faculty of Arts. And, of course, even if the money could be found to fund 14 new positions physical space limitations would imply rooftop offices for some new members of the Department. Even more moderate changes may be infeasible. For example, the Department has considered introducing a second third-year microeconomic theory course, Econ 302, to give SFU the same four-course microeconomics sequence offered by most other universities. But some argue that requiring such a course of economics majors would mean that the course would have to be offered three times per year. This one change alone would use threequarters of the teaching capacity of a new faculty position.

The recommendations listed below have been framed with existing constraints in mind. Broadly speaking, we suggest that resources should be refocused to create a top-notch honors program. This change would go a long way toward alleviating the problems noted above and towards raising the reputation of the department in leading graduate programs in North America.

## D) Recommendations for Undergraduate Program

We believe the Department of Economics should give very serious consideration to the following possible program changes.

## 1. RECOMMENDATION 14: The Department should increase the emphasis on, and visibility of, the honors program.

The following steps should be taken:
a. Identify potential honors students early and recruit them aggressively into honors program.
b. Provide them a road-map through the program. Core theory/econometrics courses might be offered in the following way:
i. first year: micro (103) and macro (105)
ii. second year: micro (301), macro (305), econometrics (333)
iii. third year: new micro (302), new macro (306), econometrics (435)
iv. fourth year: micro (402), macro (403), honors essay (499)
c. Do not preclude access to the honors program for transfer students and latebloomers from other fields, such as business.
d. Communicate the honors option to all prospective college students who may transfer. This could be done through the regular articulation process.
e. Maintain prominent faculty who are good teachers in introductory courses to maximize recruiting potential into the honors program.
f. The new third-year microeconomics course (302) and the new third-year macroeconomics course (306) for honors students could be taken by econ majors with permission of the department.
g. Make 302 a prerequisite for 402 (the advanced undergraduate micro seminar) and make 306 a prerequisite for 403 (the advanced undergraduate macro seminar).
h. Make 301 a requirement for the math econ course. Negotiate with the math department to make some other course, instead of the math econ course, a means of fulfilling the breadth requirement for math students.
i. Consider reducing required credit hours for the honors degree.
2. RECOMMENDATION 15: The University should harmonize breadth requirements across economics and other disciplines from which economics usually draws high-quality students for joint honors, or change of major.

University-wide breadth requirements may solve this problem. They should make it easier for students to transfer across faculties.
3. Over the decade of the 1990s changes in the CGPA were used to adjust the number of economics majors. In view of the increase in average class size over the last ten years from 67 to 92 , the CGPA for economics majors should now be increased. Average class sizes in economics should be no greater than those in other high-demand programs in the Arts faculty. We thus suggest:

## RECOMMENDATION 16: The CGPA required to declare an economics major should be increased, with the aim of ensuring that average class sizes in economics should be no greater than those in other high-demand programs in Arts.

4. Attention should be paid to the implications of altered CGPA requirements for the number of annual TA slots and therefore the size of the MA and PhD programs. The required CGPA should be set with additional course offerings in mind so that upper division students can find courses they have not already taken.
5. Evaluate alternative criteria besides just teaching evaluations for continuing reappointment of sessionals. For example, try subsequent course performance by students; scrutiny of syllabus and textbook choices and supplemental materials; post-course interviews with students in the program. Invoke monitoring of online grading at midterm and end-of-term to evaluate the possibility that sessionals give high grades prior to evaluation and low final grades post-evaluation.

## VI. Administrative Structure and Governance Issues

The department benefits from excellent administrative and governance structures, and also from a lot of hard work, dedication, and efficiency on the part of its faculty leaders and administrative staff.

The current chair is in the second year of a three-year term, but enjoys strong support in the department and clearly enjoys his job. An extension to the relatively short three-year term seems to be a strong possibility. The chair bears a heavy administrative load, and is of course involved in several major department committees, either as chair or as an ex officio member. Given the very active hiring activities of the department, one of the biggest obligations of the chair is the appointments committee, but his role on the departmental tenure committee (DTC) is also a heavy assignment. We are concerned that the chair may, in fact, be expected to do too much in this department. We note, for example, that he is a member ex officio of the Graduate Admissions Committee and the Graduate Program Committee. This is contrary to the typical pattern elsewhere, where these committees function well with carefully selected faculty under the leadership of the Graduate Director. We therefore suggest the following:

RECOMMENDATION 17: The Department should consider delisting the chair of the department as an ex officio member of the Graduate Admissions and Graduate Program Committees.

The chair of the department is ably assisted by Graduate and Undergraduate Chairs, who also have heavy burdens. The Graduate Chair takes the lead role in graduate admissions and funding arrangements, ensures that the graduate students are meeting their requirements in the program, and is currently engaged in intensive review of graduate course and progression requirements. Like the department chair, the Grad and Undergrad Chairs have a heavy burden of committee responsibilities. There is one area in which these burdens should be reduced, as reflected in the following:

## RECOMMENDATION 18: The Department should consider delisting the Grad and Undergrad Chairs as ex officio members of the Appointments Committee.

It is of course essential that hiring decisions should take into account instructional and supervisory needs at the undergraduate and graduate levels. Experience elsewhere, however, indicates that this can be accomplished by having the Grad and Undergrad chairs provide input into the hiring process, in written form and/or by meeting with the Appointments committee early in the hiring process. Hiring is an onerous process, and when added to all the other responsibilities of the Grad and Undergrad chairs can readily interfere with the performance of their other academic duties. Further, we heard concerns from one senior faculty member who is a well-respected researcher and department member that he felt the Appointments Committee was too heavily weighted in favour of the administrative team, whose views needed to be balanced to a greater extent by other views. If the ex officio requirement is removed, then the Grad and Undergrad Chairs will be free to run for election to the Appointments Committee if they wish and the department will be free to choose them to perform this duty. But the undesirable results of requiring these individuals to serve on the Appointments Committee would be avoided.

We also heard a concern from the same senior faculty member that the DTC should have less representation from assistant professors. One issue was that untenured assistant professors could be subject to inappropriate pressures from more senior colleagues in regard to tenure or promotion decisions. We have considered this suggestion, but are unconvinced. The University requires that there should be at least one assistant professor on the committee. We believe that if there were only one assistant professor on the committee he/she would be more, rather than less, likely to feel uncomfortable and pressured in dealing with promotion and tenure cases. It was further suggested that no one, aside from the department chair, should be allowed to sit on the appointments or DTC committees for more than one year. We see no good reason for this suggestion in the case of the Appointments Committee, where complete replacement of the committee every year would interfere with continuity in decision-making without any obvious benefit. In the case of the DTC, while we are not sure whether a change is needed, we believe it should be considered carefully by the department:

RECOMMENDATION 19: The Department should consider the advisability of not allowing faculty members, other than the department chair, to sit on the DTC in years when their own performance is up for evaluation.

Turning to administrative issues, the department administrative team has been under very great strain due to the rapid increase in undergraduate enrollment in recent years, and also due to the large increase in applications to the graduate program. In our section on Undergraduate Programs below we suggest that the GPA requirement for taking economics courses (and for declaring an economics major) should be increased. This should, we hope, lead to some reduction in undergraduate economics enrollment. This will ease administrative pressures somewhat. A further step that should be explored is whether the department could make use of work/study bursary students to perform some routine administrative tasks, perhaps in peak periods of the year or at peak times of day, in order to provide relief to staff. This could involve, e.g., photocopying, routine filing, obtaining materials from the library, and reception duties.

We had good meetings with the Departmental Assistant and also with her staff members (as a group). We inquired how important administrative procedures ranging from financial administration through student registration and add/drop were performed. The procedures in place seem efficient and effective. Good use is made of electronic aids, for example. We have no changes in administrative procedures to recommend.

## VII. External Ties

## Within the University

The Department has a historic relationship with the Faculty of Business. Although the missions of the two units have diverged over time, and links between them have declined, there are still important complementarities and linkages that should be maintained and fostered. At the undergraduate level, it is common for students to migrate between the programs as their interests and knowledge of own preferences and aptitudes evolve. Also, a significant number of students pursue joint majors or joint honors programs between business and economics. As we have noted, it is important for the department to liaise with the business school in order to serve these students well - - for example by harmonizing the breadth requirements in the two programs. At the graduate level, students in each program continue to benefit from taking courses in the other program, and there has been some joint supervision in the area of finance. These are valuable points of contact that should be maintained.

An important University development for the Department is the opening of the Public Policy Program at the Harbor Centre campus in September 2003. This program will provide high level training in a two-year M.A. program in public policy that will combine the insights of economics, political science, and related disciplines. The University has provided strong backing, including one new tenure-track position, the appointment of Prof. Nancy Olewiler from the Economics Department as the first director of the
program, a post-doc, and the nomination of a Tier 1 CRC, Prof. Jon Kesselman, to be hired from outside SFU. There are major potential benefits to the Department from maintaining strong relations with the program - both on the teaching and research fronts. It will be valuable to have PPP students enrolled in Economics courses at the Burnaby campus and also to have a limited number of appropriately qualified Economics students take PPP courses downtown. Research collaboration can potentially take place in a range of areas, including the area of health policy.

An important current development at SFU is the strategic initiative to foster health research. This promises to bring major new resources into the university, and to generate excellent research on the non-medical aspects of health that will really make a difference in Canadian society. While the Economics department does not currently have a health economist, it is to be hoped that its applied econometricians and policy specialists will turn some of their attention to this area.

A final point is that department members would do well to raise their level of participation in Senate and university-wide committees. This is important in part because economists have valuable insights to provide in university governance, but also because involvement in these activities will attune department members better to opportunities and directions being taken in the wider university.

## Outside the University

One major and important aspect of outside links are those with researchers at other academic institutions. While a good fraction of department members have cooperated in research with colleagues at other institutions, there is room for more initiatives in this area, particularly in view of the fact that the external agencies that provide major research grants are often partial to collaborative undertakings.

Another important form of external involvement is participation in the policy process, both at the provincial and national levels. The department includes senior faculty members who have made very strong contributions of this type. Such efforts are extremely valuable and should be encouraged.

While there has been some private sector support for department initiatives, such as the Telus professorship, we believe there is considerably more scope for development along these lines. The Department should work with the VP External and development office to identify other opportunities to find funding for chairs, professorships, scholarships, research fellowships, departmental seminars or visitor series, and other important initiatives. Strong support from the University is vital in this regard, but a strong effort from the department is needed as well.

Other avenues for increased outreach to the community should also be explored. At one extreme, private funding could be solicited to sponsor notable public lectures by visiting international leaders in the discipline -- which could take place at the Harbor Centre. The target audience for these special lectures could include other potential donors as well as
the general public. At the other extreme, private funding could be solicited to fund a program of sending faculty members into high schools to talk to students about what economics is and what it means to study economics at university.

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Appendix: ISI Approximate Citation Counts to April 15, 2003 for papers with 5 or more citations

Bold type indicates papers published since 1993, the year of the last Departmental Review. This table allows a crude assessment of both the stock, and the flow, of frequently cited papers. Bear in mind that other papers written since 1993 will, by ten years after their publication date, also gamer five or more citations, but such papers have not yet reached the threshold for reporting in this table.

| Faculty Member | Journal | Year | Total Cites if >4 |
| :---: | :---: | :---: | :---: |
| Allen, DW | Rand J Econ | 1993 | 21 |
| Allen, DW | Res Law Ec | 1991 | 21 |
| Allen, DW | J. Econ. Behav. Organ. | 1990 | 19 |
| Allen, DW | Am Econ Rev | 1992 | 16 |
| Allen, DW | J. Law Econ | 1991 | 16 |
| Allen, DW | Ec Inq | 1992 | 15 |
| Allen, DW | Am Econ Rev | 1995 | 9 |
| Allen, DW | J. Law Econ Organ | 1999 | 8 |
| Allen, DW | J. Law Econ | 1998 | 7 |
| Andolfatto, D | Am Econ Rev | 1996 | 28 |
| Andolfatto, D | Carn Roch Conf Serie | 1996 | 8 |
| Andoifatto, D | Can J Econ | 1997 | 6 |
| Arifovic, J | J Econ Dyn Control | 1994 | 49 |
| Arifovic, J | J Polit Econ | 1996 | 33 |
| Arifovic, J | J. Montary Econ | 1995 | 22 |
| Arifovic, J | J Econ Growth | 1997 | 9 |
| Arifovic, J | Computational Ec | 1995 | 6 |
| Boland, LA | J Econ Lit | 1979 | 86 |
| Boland, LA | F Ec Method | 1982 | 84 |
| Boland, LA | Am Econ Rev | 1981 | 50 |
| Boland, LA | Am Econ Rev | 1983 | 20 |
| Boland, LA | Can J Econ | 1978 | 14 |
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[^1]
## Appendix B: Recommendations

RECOMMENDATION 1: An additional mid-career or senior econometrician should be hired as soon as possible.

RECOMMENDATION 2: At least half of any net increase in the faculty complement over the next five years should be in applied areas.

RECOMMENDATION 3: The University should act aggressively to prevent salary caps for full professors from causing retention problems in the Department.

RECOMMENDATION 4: The Department and the University should ensure that the compensation of existing family members does not fall behind that of equally productive faculty hired more recently.

RECOMMENDATION 5: The department should designate a digital working paper coordinator with responsibility for maintaining its working paper series with RePEc. These series can be retroactive, so older worker papers that still have value can be uploaded as well. The department should also begin monitoring outside interest in its faculty members' work. This monitoring can be helpful to future formal and informal assessments of the department's "influence upon the profession".

RECOMMENDATION 6: More attention should be devoted to measuring the demand for the department's research (in the form of citations and downloads), instead of just the supply (the number of papers written or published).

RECOMMENDATION 7: The department should make every effort to reach beyond the SSHRC for research funding. Future university emphasis on health policy might be exploited. Liaisons with US researchers can provide access to NSF funding. Other Canadian sources should be exploited to the fullest extent possible. Development opportunities should be explored collaboratively with the university as opportunities to encourage bequests from alumni grow with the aging of that population. Opportunities to encourage smaller gifts should not be ignored.

RECOMMENDATION 8: Discretion should be exercised in deciding how and whether individual faculty need to be compensated with teaching credit for time spent advising graduate students.

RECOMMENDATION 9: The department should expand technology that supports research (and teaching) by acquiring digital sender technology and it should explore portable laboratories for experimental economics. The University should better integrate searchable bibliographic databases with digital library holdings.

RECOMMENDATION 10: The department should implement the transition to a one-year MA program, with due consideration of the challenges posed by the resulting change in composition of the graduate economics community.

RECOMMENDATION 11: Completion of the second-year PhD. research paper should be required by the end of the summer following the second year of the program. Students should be encouraged to use this paper as the basis for their thesis prospectus. The prospectus should be presented in the fall of the third year in the Ph.D. program. At the same time, a tentative Ph.D. dissertation committee should be established.

RECOMMENDATION 12: The department should introduce required Ph.D. courses in Econometrics and Mathematical Economics.

RECOMMENDATION 13: There should be a placement officer who is distinct from the graduate chair.

RECOMMENDATION 14: The Department should increase the emphasis on, and visibility of, the honors program.

RECOMMENDATION 15: The University should harmonize breadth requirements across economics and other disciplines from which economics usually draws highquality students for joint honors, or change of major.

RECOMMENDATION 16: The CGPA required to declare an economics major should be increased, with the aim of ensuring that average class sizes in economics should be no greater than those in other high-demand programs in Arts.

RECOMMENDATION 17: The Department should consider delisting the chair of the department as an ex officio member of the Graduate Admissions and Graduate Program Committees.

RECOMMENDATION 18: The Department should consider delisting the Grad and Undergrad Chairs as ex officio members of the Appointments Committee.

RECOMMENDATION 19: The Department should consider the advisability of not allowing faculty members, other than the department chair, to sit on the DTC in years when their performance is up for evaluation.


[^0]:    ${ }^{1}$ There have been four departures since 1998, for an average of less than one per year. For comparison, over the period since 1990 UWO has lost an average of two people per year.

[^1]:    * JW Dean citations are easily confounded with those of JW Dean at the University of Cincinnati College of Business. RA Jones is easily confounded with citations for a sociologist at the University of illinois with the same initials. There are many different people named N. Schmitt in the data base. We have done our best to avoid errors caused by these duplicate names.

