SIMON FRASER UNIVERSITY OFFICE OF THE VICE-PRESIDENT, ACADEMIC MEMORANDUM

S.94 - 45 As Amended by Senate June 6/94

To:

Senate

From:

J.M. Munro, Chair, Senate Committee on Academic Planning

Subject:

SCIMO report recommendations

Date:

13 April 1994

The Senate Committee on Instructional Methods and Organization reported to the Senate Committee on Academic Planning in June 1993. The report was circulated widely within the University and comments were sought. In 8 meetings between October 1993 and March 1994, SCAP has reviewed the recommendations of SCIMO and considered the appropriate course of action. Senate received the SCIMO report for information at its meeting in January, 1994.

Section 1 contains actions being recommended for approval by Senate. Section 2 contains actions which have been or are being referred to other persons and committees for consideration, and which are forwarded to Senate for information.

Motion 1:

- 1. That Senate approve the following recommendations from SCIMO:
 - 1.1 That Departments should plan required course offerings six semesters in advance, publish complete information on course offerings and instructors three semesters in advance in the Registration Handbook, and adhere to the University's policy of publishing course outlines two weeks before the start of telephone registration. (SCIMO recommendation 3)
 - 1.2 That the University should ensure that the balanced commitment to teaching and research required of tenure-track faculty is properly reflected in the evaluation of performance in contract renewal, tenure, promotion and in the performance reviews for salary increases. Departmental Tenure Committees, Deans and the University Tenure Committee should ensure that appropriate weight in the evaluation is given to teaching and teaching-related activities, such as graduate student supervision. (8)
 - 1.3 All faculty starting their academic careers are expected to participate in general and discipline-specific seminars and workshops on teaching and teaching-related activities to be co-ordinated by the Centre for University Teaching. These workshops and seminars should be given

- each fall semester and the teaching assignments for new faculty should be scheduled to allow full participation in such a course. (10)
- 1.4 All new faculty should be given a teaching assignment below the department norm during their first year, but no new faculty member should be assigned less than half the normal teaching assignment during his/her first year. (11)
- 1.5 The University should provide the instructors of large classes with support in the form of workshops to assist in developing skills for large class instruction, appropriate administrative assistance and workload recognition. (15)
- 1.6 The Centre for University Teaching should develop a program which could be adapted to varying departmental needs to assist in the training of TAs. Faculty members should be encouraged to use tutorials more effectively and should actively participate in the training of TAs. (16)
- 1.7 The University should assess the effectiveness of its programs by surveying students in progress, students who have graduated, and students who have left the institution without graduating, as well as employers, to ensure that the University is fulfilling its mandate to provide quality education which is the foundation for a highly skilled population. The Office of Analytical Studies should be the coordinating office for surveys of former students; units interested in surveying students who have graduated should consult with Analytical Studies prior to undertaking a survey, and survey results should be returned to that office. (30)
- 1.8 SCIMO recommended that its mandate as an <u>ad hoc</u> committee should be taken up by a new standing Senate Committee on University Teaching and Learning. (32)

Proposed Terms of Reference: Senate Committee on University Teaching and Learning

Standing Committee reporting to Senate annually in May.

Purpose:

- 1. To assist departments in the development of methods of evaluating teaching.
- 2. To develop new standard teaching survey instruments and to develop a policy regarding the regular use of teaching surveys by all course instructors.

- 3. To undertake a periodic review the programs of awards given for excellent teaching in the University.
- 4. To receive periodic reports on programs developed and delivered by the Centre for University Teaching and to provide advice on future activities of the Centre.
- 5. To assist Departments and Faculties in implementing new teaching technologies and methods.

6. To support the ongoing examination of all learning methods in order to continue to improve the University's instructional quality and cost effectiveness.

quality and cost effectiveness.

4. To explore means by which Sessional Instructors might be Membership: supported & guided in providing effective teaching

Chair Elected by Senate 2 year term 4 Faculty members Elected by Senate 2 year term 2 year term

(staggered initially)

1 Graduate Student Elected by Senate 1 year term
1 Undergraduate Student Elected by Senate 1 year term
Secretary (voting) Director, Centre for University Teaching

(This incorporates SCIMO recommendations 6, 7, 9, 19 and 32.)
1.9 Every senior academic administrator (Dean + above) should
Motion 2: teach a course at least once every two years.

- 2. That Senate receive the following for information:
- 2.1 The following recommendations have been forwarded to SCEMP for consideration:
 - 2.1.1 Departments and Faculties should develop plans for the target size of units and programs in conjunction with planning guidelines from the Senate Committee on Enrollment Management and Planning (SCEMP). These plans should be brought together in the University's plan for overall size. SCEMP should coordinate this process and recommend target enrollments for each unit. (1)
 - 2.1.2 Planned changes (increase or decrease) in the size of the University or its departments and programs should be brought from SCEMP to the Senate Committee on Academic Planning (SCAP), to Senate and to the Board of Governors in October of each year for approval. (2)
 - 2.1.3 Faculties and Departments should work with Analytical Studies and the Registrar's Office to use improved information concerning expected student demand for planning course offerings. As part of this, Faculties and Departments should undertake a systematic examination of the desirable frequency of course offerings. (4)

- 2.2 The following recommendations have been forwarded to SCUS for consideration:
 - 2.2.1 At the first meeting of the class, instructional staff should provide course outlines which, at a minimum, describe the course objectives, the types of teaching strategies to be employed and the expectations for student activities and assignments. (12)
 - 2.2.2 Instructional staff should reinforce the learning experience for students by such means as assigning an appropriate amount of written work, group assignments and presentations, and providing adequate feedback to the students. The use of multiple choice testing should not be relied on as the sole method of evaluation in courses where written assignments would enhance the instructor's ability to gauge the student's understanding of the subject. (13)
- 2.3 The following recommendations are being taken into consideration in the current revision of the Faculty Workload Policy:
 - 2.3.1 Normally, departments should not offer courses which count as part of a faculty member's regular course teaching responsibilities where the expected enrollment is lower than

100 and 200 level courses fewer than 15 students 300 and 400 level courses fewer than 10 students graduate courses fewer than 5 students

Analytical Studies should present SCAP with a report on low enrollment courses annually. (14)

- 2.3.2 Policy A 30.03 Faculty Workload, should be renamed Faculty Teaching Responsibilities. Section 3 of the policy should be rewritten to allow for the voluntary assumption of additional teaching as a preference of tenured faculty members; additional teaching could replace some, but not all, expectation of scholarly activity. (22)
- 2.3.3 Departments and non-departmentalized Faculties should provide the Senate Committee on Academic Planning each year with a report on the teaching assignments for the year, demonstrating how the unit is meeting the teaching assignment policy of the University. This report should include an analysis of the levels of teaching at the undergraduate and graduate level by the separate instructional categories, the average student and instructor contact hours, and the supervision of graduate students. (23)

[This recommendation also said "SCAP may recommend to the Vice-President, Academic that different pedagogical styles be explored in

- areas of particular units." This is incorporated in the Terms of Reference of the proposed Senate Committee on University Teaching and Learning.]
- 2.3.4 Chairs shall continue to assign teaching responsibilities and should determine whether more or fewer courses than the normal teaching assignment should be taught by assessing the responsibilities each faculty member has in the following areas:
 - the size and nature of courses assigned;
 - the faculty member's research program;
 - the number of graduate students supervised, and the type of supervision required;
 - the faculty member's willingness and ability to participate in the administration of the department;
 - the teaching norms in similar departments at other Canadian Universities. (24)
- 2.3.5 Policy A 30.03 should be revised so that, where a faculty member has a research grant or contract, a course buy-out may be arranged if it is in the best interest of both the University and the faculty member. Each course buy-out should be set at 20% of the average faculty member's salary, and no more than 25% of the normal teaching assignment may be bought out in a two-year period. (25)
- Deleted as 19 under Motion #1 2:3:6 Every-senior-academic-administrator-(Dean-and-above)-should-teach-a-course-at-least-once-every-two-years. (26)
- 2.4 The following recommendation is being forwarded to the President:
 - 2.4.1 The University should publish an annual narrative report to the people and the government of British Columbia. (31)
- 2.5 The following recommendation is being forwarded to the Faculty of Education and the Centre for University Teaching:
 - 2.5.1 The Faculty of Education should work with the Centre for University Teaching to design a graduate course in university teaching. (18)
- 2.6 The following recommendation is being forwarded to the Faculties:
 - 2.6.1 Given the importance of student access and the cost of operating the trimester system, Faculties should ensure that there is adequate core programming in all three semesters. (27)

- 2.7 The following recommendations have been implemented:
 - 2.7.1 Continuing Studies should be responsible for ensuring that a course is available to provide special language and cultural training for international students who are teaching assistants. (20)
 - 2.7.2 SCIMO recommends that a task force be established to assess the potential for improving and extending the use of educational technology in the following ways:
 - a) enhancing the learning process,
 - b) taking advantages of technology for instructional efficiency;
 - c) providing financial support for innovative educational technology ventures;
 - d) facilitating communication and co-operation among educational technology users.

In particular, the task force should be charged with investigating the technical, financial and instructional possibilities and problems associated with developing greater reliance on mixed-media methods of instruction. (21)

- 2.7.3 Continuing Studies, in consultation with Analytical Studies and Departments and Faculties, should prepare a report assessing the needs of evening-only students and the needs of the external community for access to evening-only, and weekend study. A review of program needs should be undertaken every three years. Where the demand exists, Departments and Faculties should integrate evening program offerings into their course planning. (28)
- 2.7.4 The Registrar should undertake a feasibility study of an advance course planning and registration system which would operate with a one-year cycle. (29)
- 2.8 The following recommendation was rejected by SCAP:
 - 2.8.1 New graduate students should not be appointed as teaching assistants in their first semester at SFU. The first semester should be spent getting a good start on their academic program, becoming familiar with the University environment, training to be a TA, and learning about university teaching. (17)

Je Muno

THIS REPORT WAS NOT PART OF THE SENATE PAPER. IT WAS DISTRIBUTED TO THE UNIVERSITY COMMUNITY BUT IS FILED WITH THE SENATE PAPER FOR REFERENCE PURPOSES



SIMON FRASER UNIVERSITY

SENATE COMMITTEE ON INSTRUCTIONAL METHODS AND ORGANIZATION

June 30, 1993

REPORT OF THE

SENATE COMMITTEE ON INSTRUCTIONAL METHODS AND ORGANIZATION

TABLE OF CONTENTS

| | | rage | | | | | | |
|------|--|------|--|--|--|--|--|--|
| I | SUMMARY OF FINDINGS | 1 | | | | | | |
| П | BACKGROUND | | | | | | | |
| Ш | ENROLLMENT INCREASES | 4 | | | | | | |
| | 1. History | 4 | | | | | | |
| | 2. Costs and Benefits of Enrollment | 7 | | | | | | |
| | 3.1 Costs of Enrollment Increases -Inadequate Operating Funding | 7 | | | | | | |
| | 3.2 Costs of Enrollment Increases - Lack of Capital Expansion | 8 | | | | | | |
| | 3.3 Costs of Enrollment Increases - The Unpredictable Nature of Enrollment | 8 | | | | | | |
| | 4.1 Benefits of Enrollment Increases - Impact on Revenue | 8 | | | | | | |
| | 4.2 Benefits of Enrollment Increases - Capital Expansion | 8 | | | | | | |
| | 4.3 Benefits of Enrollment Increases - Responding to the Public and Government | 8 | | | | | | |
| | 5. Recent Enrollment Management Strategies | 9 | | | | | | |
| | 6. Future Directions for Enrollment Management | 9 | | | | | | |
| | 7. Course Planning | 10 | | | | | | |
| IV | THE ROLE OF TEACHING IN THE UNIVERSITY | 11 | | | | | | |
| | 1. The Importance of Teaching in the University | 11 | | | | | | |
| | 2. The Interaction Between Teaching and Research | 11 | | | | | | |
| | 3. The Evaluation of Teaching | 12 | | | | | | |
| | 4. Teaching and Faculty Evaluation | 14 | | | | | | |
| | 5. Enhancing the Quality of Teaching | 14 | | | | | | |
| | 6. Accountability in Instruction | 15 | | | | | | |
| V | THE ORGANIZATION OF TEACHING AND LEARNING | 16 | | | | | | |
| | 1. Issues of Course Size | 16 | | | | | | |
| | 2. Learning Environment | 20 | | | | | | |
| | 3. The Tutorial System | 21 | | | | | | |
| | 4. Instructional Technology | 24 | | | | | | |
| VI | TEACHING ASSIGNMENTS | 26 | | | | | | |
| | 1. Measuring and Assigning Teaching | 26 | | | | | | |
| VII | ADMINISTRATION OF THE TEACHING PROGRAM | 27 | | | | | | |
| | 1. The Trimester System | 27 | | | | | | |
| | 2. Evening Courses | 29 | | | | | | |
| | 3. Advance Registration | 30 | | | | | | |
| VIII | ACCOUNTABILITY ISSUES | 31 | | | | | | |

I SUMMARY OF FINDINGS

The Senate Committee on Instructional Methods and Organization has undertaken an extensive review of instruction at Simon Fraser University. It completed a survey which provided a great deal of new useful information. A continuation of the survey would provide further information and bench marks against which some indicators of success could be measured.

Instructional methods and organization are part of a complex network of departmental and disciplinary pedagogies entwined with University standards. There is no quick formula for enhancing instructional methods and organization at Simon Fraser University. However, we believe that we have identified some areas through which improvements can be made. The cumulative effect of several modifications of current practice would, the Committee believes, contribute to increased instructional effectiveness.

The Committee's recommendations span the following areas:

- 1. The elimination of unnecessarily small classes; the present range of class sizes is neither academically justified nor considered desirable by students. This range is not sustainable within present and expected financial constraints.
- 2. The rigorous and consistent application of existing policies on faculty workload across all academic units; the present range of teaching workloads is inequitable and unacceptably costly.
- 3. The improved planning of course offerings and the provision of advance registration to allow students to register early and improve access to the courses they need, when and in the sequence in which they need them. This would alleviate a major frustration for students.
- 4. Further examination of the potential for improving and extending the use of educational technology.
- 5. The provision of more opportunities for instructional staff (faculty and teaching support staff) to receive constructive feedback on their teaching practices in a supportive, collegial context.
- 6. The orderly management of enrollment increases. This will require a co-ordinated effort at the Departmental, Faculty and University levels in establishing targets and controlling admission to programs.
- 7. The continued review of standards and measures which address accountability to government, the public and students

of the use of University resources. Re-establishment of the annual reporting of the University's activities is recommended.

Together, these thrusts would have a considerable impact on the effectiveness and efficiency of instruction at Simon Fraser University and would place the University in an advantageous position for the changing educational environment of the next ten years.

II BACKGROUND

The Senate Committee on Instructional Methods and Organization (SCIMO) was established by action of Senate at its meeting of March 2, 1992. Its terms of reference and membership are attached as Appendix A. The Committee was elected at the Senate meeting of April 6, 1992. The rationale for SCIMO is set out in the President's memorandum to Senate.

"It is timely that there be a comprehensive examination of the University's instructional system. We have experienced major and unpredicted increases in enrollment. The pressures of this growth led to the establishment of the Task Force on the Quality of Service in 1990. More recently, the AUCC's Smith Report (1991) has noted many concerns over the approach to instruction in all universities.

These concerns are set in an extended period in which increases in funding are falling well short of increases in costs. For us, this situation may worsen in the next three years. Further, pressures on the University to continue to grow will be strong and, perhaps, irresistible. Funding will increasingly be tied to the level of enrollment, especially undergraduate enrollment. Therefore, growth can be expected to bring increases in resources; these could exceed the direct costs associated with growth, but only if we can introduce ways of operating the University which reduce the per student cost of instruction. If we cannot do this, the downward pressures on salary levels, infrastructure, and non-salary budgets will become ever stronger."

In carrying out its mandate, SCIMO has met many times and has consulted with various groups, including the Faculty Association, the Teaching Support Staff Union (TSSU), and the Deans. In March 1993, a draft report was issued for the purpose of consulting further with the community. The Committee held two public meetings to receive advice and comments, and received 25 written responses from individuals and groups. Committee members have read a considerable amount of information relevant to our terms of reference and have obtained opinion from the general student body through a questionnaire ("the SCIMO Survey") distributed to a sample of 1,000 undergraduate students. Information on this survey is presented in Appendix B.

While some aspects of this report will apply to both graduate and undergraduate instruction at the University, the primary focus of this report is instructional methods and organization affecting our undergraduate programs.

III ENROLLMENT INCREASES

1. History

The University's enrollment increase from 1965 to the present is shown on Table 1 and Charts 1 and 2. Over the six years between 1986/87 and 1992/93, we have added 3335 undergraduate FTEs and 627 graduate FTEs, increases of 38 percent and 58 percent, respectively. Growth over this period has been spread fairly evenly across the Faculties, but not across Departments. Moreover, the pattern of growth from semester to semester has been erratic, ranging from a 15.2 percent year-over-year increase in 91-2 to a 4.3 percent decrease in 92-2. Fall semester changes have ranged from increases of 10.8 percent in 89-3 and 91-3 (not planned) to a decrease of 0.1 percent in 92-3 (planned).

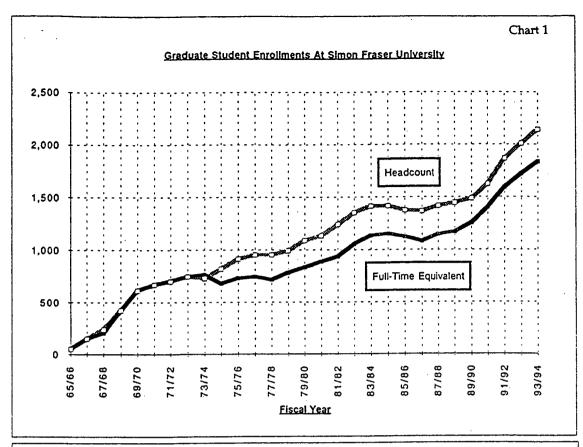
The President's strategic plan, <u>Challenge 2001</u>, projected enrollment growth for the 1990's as shown on Table 2. The growth of the University has been slower than projected in <u>Challenge 2001</u> because the funding assumptions upon which Challenge 2001 was based have not been realized. It appears that the proposed Fraser Valley university will not be opened before 1997 (and perhaps not then) and so the pressure for enrollment at Simon Fraser could be even greater than projected in the plan. Also, recent information suggests that population in the Lower Mainland is growing more rapidly than expected at the time the projections were done for <u>Challenge 2001</u>.

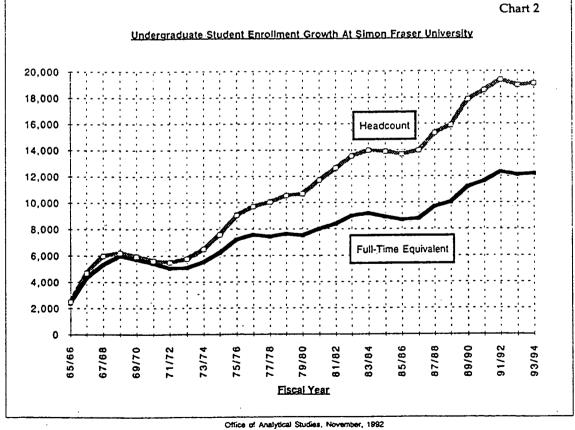
| Annualized FTE Enrollme | able 2 ent: 1990/9 | 1 - 2000/20 | 01 | |
|---|-----------------------|--------------|--------------|--------------|
| | 1990/91 | 1992/93 | 1995/96 | 2000/01 |
| | <u>actual</u> | actual | projected | projected |
| Undergraduate, Burnaby Mountain and other | 11,250 | 11,693 | 14,000 | 15,000 |
| Undergraduate, Harbour Centre | 487 | 526 | 1,000 | 2,000 |
| Graduate (all locations) | <u>1,403</u> | <u>1,720</u> | <u>2,000</u> | <u>3,000</u> |
| | 13,140 | 13,939 | 17,000 | 20,000 |

2. Costs and Benefits of Enrollment Increases

This section presents a summary of the perceived effects of recent enrollment increases on the University. It should be noted that a University-level perspective necessarily omits many costs and benefits experienced at the program level. Also, enrollment increases have had intangible effects on the University. For example, some believe that Simon Fraser University has lost important social qualities by becoming a larger and inevitably less collegial institution.

Simon Fraser University <u>Challenge 2001: The President's Strategic Plan.</u> February 21, 1991, pp 31-32.





SIMON FRASER UNIVERSITY ENROLLMENT STATISTICS

| | ANI | VUALIZE | ANNUALIZED ENROLLMENTS | MENTS | | | | | | FALL S | FALL SEMESTER HEADCOUNT | FADCOL | INT | | | |
|----------|---------------------------------|---------|------------------------|----------------|-------|---------|---------|--------|--------|-----------|-------------------------|--------|--------|-------------|-----------|--------|
| YEAR | D 3T | & 분 | TOT FTE | UG HDCNT | ADCNT | TOT | LI | 3 E | ន្ត | UG TOT | 8 E | 8 ₽ | Æ 101 | ALL | ALL PT | ALL |
| 65/66 | 2.400 | 20 | 2.450 | 2,500 | 50 | 2.550 | | 2.300 | 150 | 2.450 | 75 | | 75 | 2,375 | 150 | 2,525 |
| 29/99 | | 150 | 4.450 | 4,700 | 150 | 4.850 | - | 3,650 | 250 | 3,900 | 180 | | 180 | 3,830 | 250 | 4,080 |
| 1897/188 | F. 5 (3) 8, 41, 206, 73, 5, 524 | 206. | 5,524 | 1,5,992hVI | 24.4 | 6,231 | | 4,242 | 287 | 4,529 | 265 | | 255 | 1,72.4,49.7 | 287 | 4,784 |
| 69/89 | 5,990 | 419 | 6,409 | | | 6,644 | | 4,796 | 305 | 5,101 | 455 | 7 | 462 | 5,251 | 312 | 5,563 |
| 02/69 | 5,731 | 616 | 6,347 | 5,969 | 615 | 6,584 | | 4,419 | 401 | 4.820 | 999 | 4 | 670 | 5,085 | 405 | 5,490 |
| 17,0/71 | 5,431 | 67.1 | 67,115 6,102 | 5,630 | 671 | 6,301 | | 4.048 | 332 | 4.380 | 701 | 4 | .705 | 4.749 | 336 | 5,085 |
| 71172 | 5,049 | 902 | 5,755 | 5,481 | | 6,181 | | 3,826 | 475 | 4,301 | 730 | 2 | 732 | 4,556 | 477 | 5,033 |
| 72/73 | 5,071 | | 5,819 | | | 6,516 | | 3,819 | 835 | 4,654 | 794 | 2 | 799 | 4,613 | 840 | 5,453 |
| 13(74 | 5,512.42.77.65 | | . 6.27.7 A | 6.487. | 729 | 7,216 | | 4,170 | 1,125 | 5,295 | 1848 | 0 | 848 | F 5,018 | 1,125 | 6,143 |
| 74/75 | 6,236 | | 6,916 | | | 8,401 | | 4,598 | 1,464 | 6,062 | 669 | 180 | 879 | 5,297 | 1,644 | 6,941 |
| 75/76 | 7,206 | 732 | 7,938 | | | 9,961 | | 5,140 | 2,045 | 7,185 | 724 | 286 | 1,010 | 5,864 | 2,331 | 8,195 |
| 1.61.77 | Jr.7.5675 | 744 | 8,301 | 9,728 | | 10,680 | | -5,461 | 2,490 | 7,951. | 7.17 | -276% | 666 | 3821.9 | 2,766 | 8,944 |
| 77/78 | 7,423 | 717 | 8,140 | 10,060 | | 11,014 | | 5,281 | 2,746 | 8,027 | 629 | 330 | 989 | 5,940 | 3,076 | 9,016 |
| 78/79 | 7,619 | 783 | 8,402 | | 992 | 11,532 | | 5,503 | 3,139 | 8,642 | 705 | 355 | 1,060 | 6,208 | 3,494 | 9,702 |
| 7.9/80 | 7,521 | 835 | . 8 356 | 10,673 | 1,089 | 11,762 | | .5,308 | 3,321 | 8,629 | * 824 # | 328 3 | 1,152 | 6,132 | 3,649 | 19,781 |
| 80/81 | 8,011 | 886 | 8,897 | 11,716 | 1,135 | 12,851 | | 5,534 | 4,119 | 9,653 | 855 | 366 | 1,221 | 6,389 | 4,485 | 10,874 |
| 81/82 | 8,376 | 93 | 9,313 | 12,628 | 1,243 | 13,871 | | 5,373 | 4,427 | 9,800 | 849 | 475 | 1,324 | 6,222 | 4,902 | 11,124 |
| (82/83 | \$ 01.15£ | 0.0 | 5.710.066 | | 1,354 | 14,901 | 33) | 6,003 | 4,730 | 10,733 | . 986 : | 1,477 | 11.463 | (£ 6,989) | 5,207 | 12,196 |
| 83/84 | 9,173 | 1,137 | 10,310 | 13,985 | 1,414 | 15,399 | | 066'9 | 4,793 | 11,183 | 1,099 | 397 | 1,496 | 7,489 | 5,190 | 12,679 |
| 84/85 | 8,912 | 1,153 | 10,065 | | - | 15,307 | _ | 6,043 | 5,155 | 11,198 | 1,124 | 380 | 1,504 | 7,167 | 5,535 | 12,702 |
| 98/38 | | 1.125 | . 6,811 | 13,672 | | | | 5,791 | ,5,420 | 11,2,11 | 1,067 | 380 | 1,447 | . 898'9 | . 5,800 | 12,658 |
| 86/87 | 8,774 | 1,084 | 9,858 | | _ | 15,319 | | 5,857 | 5,554 | 11,411 | 1,064 | 394 | 1,458 | 6,921 | 5,948 | 12,869 |
| 81/88 | 9,691 | 1,147 | 10,838 | | 1,419 | 16,707 | | 6,413 | 5,991 | 12,404 | 1,162 | 332 | 1,494 | 7,575 | 6,323 | 13,898 |
| 68/88 | 0:030 | 1:169 | 111,199 | ₹15,904 | 1.444 | 17,348 | | -6,667 | 6,026 | 12,693 | 1,213, | 333 | 1,546 | 7,880 | .6'329 | 14,239 |
| 89/90 | 11,201 | 1,257 | 12,457 | 17,875 | 1,486 | 19,361 | | 7,337 | 986'9 | 14,323 | 1,364 | 236 | 1,600 | 8,701 | 7,222 | 15,923 |
| 90/91 | | 1,403 | 13,022 | 18,568 | 1,623 | 20,191 | | 7,406 | 7,145 | 14,551 | 1,469 | 270 | 1,739 | 8,875 | 7,415 | 16,290 |
| <9.1/92, | 12,319 21,584 13,812 | 1,584. | 13,912- | 19,342 | 1.864 | 21,206, | | 7,914 | 7,385 | 15,299 | 1,679 | 357 | 2,036 | 6,593 | -7,742 | 17,335 |
| 92/93 | 12,109 | 1,720 | 13,829 | 18,946 | 2,008 | 20,954 | _ | 8,067 | 7,172 | 15,239 | 1,822 | 352 | 2,174 | 688'6 | 7,524 | 17,413 |
| 93/94P | 12,198 1 | 1,835 | 14,033 | 19,086 | 2,142 | 21,228 | | | | | | | | | | |

Notes:

Enrollment statistics shown in Italics are estimates.
 Definition of Full-time has changed for graduate students in Fall, 1989 to correspond with fees paid.
 Definition of Full-time has changed for graduate students in Fall, 1989 to correspond with fees paid.
 On-leave graduate students are reflected in the part-time statistics but are excluded for FTE calculation purposes.
 Annualized graduate headcout is an average over three semesters. For undergraduates it is one half the sum of yearly headcount semester registrations.

3.1 Costs of Enrollment Increases - Inadequate Operating Funding

The University could have responded to the reduction in government funding during the 1980's² by effecting a substantial reduction in its size. At Simon Fraser, total FTEs increased by 1341 (1256 undergraduate; 85 graduate) between 1986/87 and 1988/89, before there was any enrollment-driven increase in our grant. Allowing enrollment to increase with only tuition fees to support the increased costs would seem, inevitably, to lead to reduced quality. Since the start of the Access Program in 1989/90, the University has received grant increases for all additional undergraduate FTEs. However, we have accommodated 265 graduate FTEs in excess of our Access funding.

The pressures of enrollment increases have been too intense, it appears, for some of the University's departments to have developed effective means of controlling enrollment at the program level and planning program offerings to satisfy the demand for courses. A consequence of this, according to the SCIMO survey, is that many students are taking longer to finish their degrees than they wish.

The effects of accepting extra students can be seen in the increase in undergraduate course sections taught by Sessional Instructors and Limited Term faculty (from 25 percent in 1986/87 to over 35 percent in 1990/91). Also, until 1991/92 there was a sharp increase in tutorial sizes. Now, because of a planned workload reduction, tutorials are smaller than in 1986/87 although some other course types are larger.

Funding for administrative and academic support units at the University has not increased at the same rate as for academic departments and programs. Support positions in academic units have kept pace with FTE students on a University-wide comparison, while support positions in non-academic departments have declined 15% compared with total undergraduate enrollment.

3.2 Costs of Enrollment Increases - Lack of Capital Expansion

We have suffered the effects of crowding in classrooms, offices, parking, study space, and public spaces on campus. Reflecting the building freeze of the 1980's and lags between new building approval and occupancy, the University's space shortfall increased from 17 percent in 1986 to 36 percent this year.

When funding is provided for new buildings, the government usually does not provide the University with adequate additional funding to operate (heat, light, protect, and clean) the new facilities.

² About \$39 million, in 1992/93 dollars, using a per student measure for funding comparison.

3.3 Costs of Enrollment Increases - The Unpredictable Nature of Enrollment

Our inability to monitor and predict enrollment change has meant that substantial burdens have been placed on departments and instructional staff in dealing with unanticipated swings in enrollment in their programs and courses; these swings have usually involved more, not fewer, students than were expected.

The University has been unable to develop new programs or extensions of existing programs at the same pace as its enrollment has increased. This has meant that increasing numbers of students have had to be taken into all programs. Many of our undergraduate Arts programs are as large as their counterparts at UBC, a university which has almost twice as many under-graduate FTEs in total.

4.1 Benefits of Enrollment Increases - Impact on Revenue

The University received \$16.2 million more in its government grant this year than it would have without the Access Program. Tuition revenue from enrollment added after 1988/89 amounted to another \$5 million. Together these were almost 15 percent of 1992/93 budgeted expenditure.

We have been able to add a large number of new faculty positions which would not have been possible without growth. In 1986/87 our faculty complement was 482; in 1992/93 it was 638. New faculty have reinvigorated departments and allowed us to move more quickly towards our employment equity goals.

The funding flowing from larger enrollments has allowed the University to respond more completely to the salary demands of its employee groups than would otherwise have been possible, without reducing the number of employees.

4.2 Benefits of Enrollment Increases - Capital Expansion

Enrollment increases have allowed us to convince government of the necessity to construct new facilities. Buildings completed, under construction, and in active planning between 1989 and 1992 total 32,000 square meters, an increase of over 30 percent in the University's total space. The completion of projects included in our present five-year capital plan would bring our space shortfall back to its mid-1980's level.

4.3 Benefits of Enrollment Increases - Responding to the Public and Government

There could have been a very negative impact on public support for universities if we had not been prepared to grow with demand. Many would argue that an independently-determined "no growth" policy was never an option for a public university which receives 80 percent of its funding from the government. By responding to enrollment pressures, we

have been seen to be socially responsible and have built much more public support for our still-unmet funding needs than we would have done by closing the doors.

5. Recent Enrollment Management Strategies

Since 1989, the Senate Committee on Enrollment Management and Planning has been responsible for managing the University's enrollment. SCEMP receives information on the increases in funded FTEs which the Ministry is allotting to SFU; estimates of retention rates, average course loads, and rates of acceptance of students offered admission. SCEMP recommends to SCAP the target admissions to achieve the projected enrollment for the University.

SCEMP and the other bodies involved in the determination of enrollment levels have been keenly interested in the total enrollment of the University and in the allocation of newly admitted students between the three main categories of admission: BC Grade 12 students, College Transfer students, and students in the "Other" category (transfer students from other universities, mature students, high school completion students from other provinces, etc.). Enrollment is controlled in the Faculty of Business Administration, the Faculty of Science, the Schools of Computing Science, Criminology and Engineering Science, the Departments of Communication and Economics, and the Professional Development Program in the Faculty of Education but not elsewhere.

6. Future Directions for Enrollment Management

While SCIMO has not reached agreement on the balance of the costs and benefits of past expansion, we are agreed that it is time to move ahead and focus on planning for future decisions.

The optimal size for Simon Fraser might be established by matching estimates for each department with the overall enrollment for the University. Departments should estimate the number of courses with preferred enrollments which can be taught by existing and planned faculty complements together with a controlled modest number of sessional and limited term appointments. Then an estimate of the effects of major future changes - adding a School; deleting an emphasis; adding a graduate degree program - could be made. These estimates will require meshing with University level enrollment projections. Such an integrated planning model would provide an "academic" plan for the enrollments of the University, and would be a shift away from the present system which sees the University accepting a total maximum enrollment, but not being able to control the distribution of this enrollment.

Any plan would have to reflect the evolving plans of the Ministry for the whole post-secondary system. The development of other institutions, particularly the University of Northern British Columbia and the University Colleges, appear to be the primary focus of the Ministry, but indications are that Ministry will require all institutions to provide more

educational opportunities with fewer resources. Internally, there is no obvious preference for increasing student enrollments, although within particular Departments and Faculties specific program expansions are desired. Expansions might be balanced with reductions in other areas.

Recommendation 1

Departments and Faculties should develop plans for the target size of units and programs in conjunction with planning guidelines from the Senate Committee on Enrollment Management and Planning (SCEMP). These plans should be brought together in the University's plan for overall size. SCEMP should coordinate this process and recommend target enrollments for each unit.

Recommendation 2

Planned changes (increase or decrease) in the size of the University or its departments and programs should be brought from SCEMP to the Senate Committee on Academic Planning (SCAP), to Senate and to the Board of Governors in October of each year for approval.

7. Course Planning

The second component of enrollment planning is at the course level. The most serious problem reported by students in the SCIMO Survey was their inability to register in desired (required and elective) courses. The following results summarize the situation:

- 83% of students reported they were getting the number of courses they wished but only 42% were getting the specific courses they wanted.
- Over half (54%) said they were taking longer to complete their degrees than expected, some blamed the course offering patterns of the trimester system but most blamed full courses.

In addition, we are now able to determine from tracking registration activity that some students have to try a large number of course registrations to get the number of courses they wish.

Recommendation 3

Departments should plan course offerings six semesters in advance, publish complete information on course offerings and instructors three semesters in advance in the Registration Handbook, and adhere to the University's policy of publishing course outlines six weeks in advance of registration.

Recommendation 4

Faculties and Departments should work with Analytical Studies and the Registrar's Office to use improved information concerning expected student demand for planning course offerings. As part of this, Faculties and Departments should undertake a systematic examination of the desirable frequency of course offerings.

THE ROLE OF TEACHING IN THE UNIVERSITY IV

The Importance of Teaching in the University 1.

Universities across the country are paying more attention to the quality of teaching, spurred on by critical examinations of the university system undertaken by the Commission of Inquiry on Canadian University Education, and by provincial governments and the media. University's two important mandates is to teach. Universities need faculty who are qualified to teach and who teach in an effective manner. little emphasis has been placed in the past on the ability of faculty to teach; knowledge of the discipline has been paramount and less attention has been paid to skills in the transmission of knowledge.

The Interaction Between Teaching and Research 2.

The connections between teaching and research by university faculty members are the subject of much controversy. Some view the model of the teacher-scholar as a frivolous luxury but for others the traditional model of the teacher-scholar is a defining (for some, the defining) characteristic of the academy.

Members of SCIMO believe that full time tenure-track faculty should be involved in both teaching and research. The majority of undergraduate courses at all levels should be taught by those who are actively engaged in research. Active researchers are up-to-date in their fields and should be involved in courses which emphasize problem-solving, research design, research methods etc. Active researchers should also be active writers who are able to evaluate and help improve undergraduate writing skills. Also, active researchers are often in a position to illustrate the purposes and importance of particular course content. Teaching is important to research, too, because it encourages researchers to disseminate their knowledge in an accessible manner. Finally, at the senior undergraduate and graduate level, teaching can often provide a forum for discussion of new ideas and the development of research projects.

In recognizing the importance of continuing faculty teaching at all levels, it is noteworthy that the number of course sections taught by tenure-track faculty at the 100 level has declined by 9.1% over the five year period 1988/89 to 1992/93 [from 173 of 512 primary sections to 159 of 533

primary sections] while the number of faculty positions increased by 21% from 499.5 to 604.5. Students at all levels benefit from contact with faculty who share with students a broad view of the discipline and a sense of the excitement and depth of their own work. This is important at the lower levels, where the larger classes have many students who are still exploring their disciplinary options.

A recent Ministry survey (MAETT 1992) emphasizes that employers of university graduates rank communication, organization, and problem-solving abilities as the most important attributes of their employees. These three areas are basic to good research, and university faculty are in a unique position to teach such skills because of their participation in research programs.

Recommendation 5

Students at all levels should receive instruction from tenure-track faculty.

3. The Evaluation of Teaching

A carefully designed and validated teacher evaluation system constitutes an explicit statement of what the institution values with respect to teaching and its commitment to improved teaching. Nothing would constitute a stronger commitment to improved teaching than introduction of a systematic, diagnostic set of measures for evaluating teaching.

Universities evaluate teaching for two reasons:

- a. to provide teachers with feedback intended to enhance their teaching; and
- b. to provide data for various peer review processes.

Evaluating the quality of teaching is complicated because there is no widely accepted method of evaluating teaching, contention concerning the measurement of the quality of teaching, and little agreement on how to deal with poor teaching.

Most (80%) of the students who responded to the SCIMO Survey had completed course instructor evaluations. Almost all of those who had not were students in their first semester at SFU. However, responses to further questions indicated that students were skeptical about the uses to which their ratings and comments were put. It seems possible that the widespread reliance on student course and instructor evaluations in faculty review processes is not known or appreciated by students. It is also possible that they expect too much or, on the other hand, that the institution does not make enough use of this source of opinion on teaching performance.

Teaching evaluation methods and instruments

There are many models for evaluating teaching, including self-evaluation (e.g., watching a tape of one's lecture), internal student evaluations (e.g., mid-semester and end-of-semester questionnaires), external student evaluations (e.g., "alternative" calendars), student exit tests (e.g., comprehension, writing and numeracy exams prior to graduation), and peer evaluation (e.g. tenure committee attendance at lectures). According to authorities, the most difficult phenomenon to measure is teacher/student interaction; classroom observation is time-consuming and requires careful training. Videotaping for teacher-guided self-analysis, in conjunction with student ratings, may be the best approach.

Simon Fraser University's preferred tool in teaching evaluation is the student questionnaire. Like most universities, we seem to have accepted that good teaching consists of what students approve (or seem to approve) of according to judgements rendered on a survey form.

There are many different questionnaires in use and many varieties of questionnaire administration. Few, if any, of these have been subjected to any kind of technical validation. This should precede our continued reliance on these tools. One way of validating such student judgments would be to compare them with data from various other sources to see if there is consistency in judgments between administrators, colleagues, and students. For example, a good evaluation form filled out by students should contain questions on course content and coverage. The same topic could be evaluated by the Departmental Tenure Committees through examination of course outlines, reading lists etc. The opinions of students and colleagues could be compared. If opinions overlapped to a considerable extent, greater reliance could be placed on this aspect of the student rating. Similarly, one expects some consistency from year to year (much educational research confirms this stability); comparing student ratings in the same course in different years should reveal some consistency of judgment; if this were the case these ratings would gain in credibility.

Evaluation of teaching would be improved by less reliance on a single form of assessment. If the course outlines developed by a particular professor were subjected to scrutiny and rating by a peer working in the same field (in somewhat the same way as publications are reviewed), one could compare this independent assessment with others from other sources (i.e., students). Multiple measures of a complex activity such as teaching are strongly recommended in the educational literature as a means of increasing confidence in assessment outcomes.

Recommendation 6

Departmental Tenure Committees should develop an evaluation method for assessing faculty members' teaching which includes review of course content and coverage, course organization and requirements, and student

opinion, both current and retrospective. Teaching portfolios would be helpful in this approach to evaluating teaching.

Recommendation 7

The proposed Senate Committee on University Teaching (see Recommendation 32) should develop a new standard teaching survey instrument which could be suitably adapted for different disciplines. This instrument should be used in evaluating the effectiveness of all course instructors on a regular basis.

4. Teaching and Faculty Evaluation

Teaching and research are the dual pillars of the academy. Recommendations on contract renewal, tenure and promotion should include more evidence on the teaching performance of the faculty member so that the teaching and research performance can both be assessed, along with the service contribution of the faculty member.

Recommendation 8

The University should ensure that the balanced commitment to teaching and research required of tenure-track faculty is properly reflected in the evaluation of performance in contract renewal, tenure, promotion and in the performance reviews for salary increases. Departmental Tenure Committees, Deans and the University Tenure Committee should ensure that appropriate weight in the evaluation is given to teaching and teaching-related activities, such as graduate student supervision.

Recommendation 9

The University should consider the creation of a University Teaching Professorship award to support teaching focussed initiatives by faculty with outstanding records as teachers. This would be separate from and in addition to the Excellence in Teaching Awards.

5. Enhancing the Quality of Teaching

In the SCIMO Survey most students (83%) responded that "all" or "most" course instructors were generally interested in teaching. Almost as many (75%) were "very" or "somewhat" satisfied with the overall quality of teaching at Simon Fraser. Questions concerning the content of teaching by course instructors (intellectual challenge, ability to explain, responsiveness to questions, etc.) produced "very" or "somewhat" satisfied responses from over 75% of respondents. While these results are encouraging, they do indicate scope for improvement.

University faculty usually do not receive any training in teaching methods. Ideally, teaching competence should be developed as part of graduate

education in formal courses and in the experience gained by being a SCIMO believes that tenure-track faculty at Simon teaching assistant. Fraser should be encouraged to improve their teaching skills by making resources available to them (e.g. seminars, workshops etc.). Teaching performance should be evaluated systematically and seriously, and good teaching should be rewarded.

Recommendation 10

All faculty starting their academic careers should be required to participate in general and discipline-specific seminars and workshops on teaching and teaching-related activities to be co-ordinated by the Centre for University Teaching. These workshops and seminars should be given each fall semester and the teaching assignments for new faculty should be scheduled to allow full participation in such a course.

Recommendation 11

All new faculty should be given a teaching assignment below the department norm during their first year, but no new faculty member should be assigned less than half the normal teaching assignment during his/her first year.

Accountability in Instruction

Students are responsible for a large part of their success in their educational pursuits. But course instructors are also responsible for the effective delivery of instruction and should be held accountable for their work in this area.

Recommendation 12

At the first meeting of the class, instructional staff should provide course outlines which, at a minimum, describe the course objectives, the types of teaching strategies to be employed and the expectations for student activities and assignments.

The learning experience at university should enhance the literacy, numeracy and communication skills of students. Instructors should consider a variety of methods for assessing students' performance and should take an active role in providing feedback on the content and the style of students' work. As class sizes increase, instructional staff may be inclined to change evaluation and assessment techniques in an effort to control their workload. Alternate pedagogies should be considered in the context of the learning objectives for the course and in recognition of the variety of students' learning styles in an attempt to enhance the overall academic development of students.

Recommendation 13

Instructional staff should reinforce the learning experience for students by such means as assigning an appropriate amount of written work, group assignments and presentations, and providing adequate feedback to the students. The use of multiple choice testing should not be relied on as the sole method of evaluation in courses where written assignments would enhance the instructor's ability to gauge the student's understanding of the subject.

V THE ORGANIZATION OF TEACHING AND LEARNING

1. Issues of Course Size

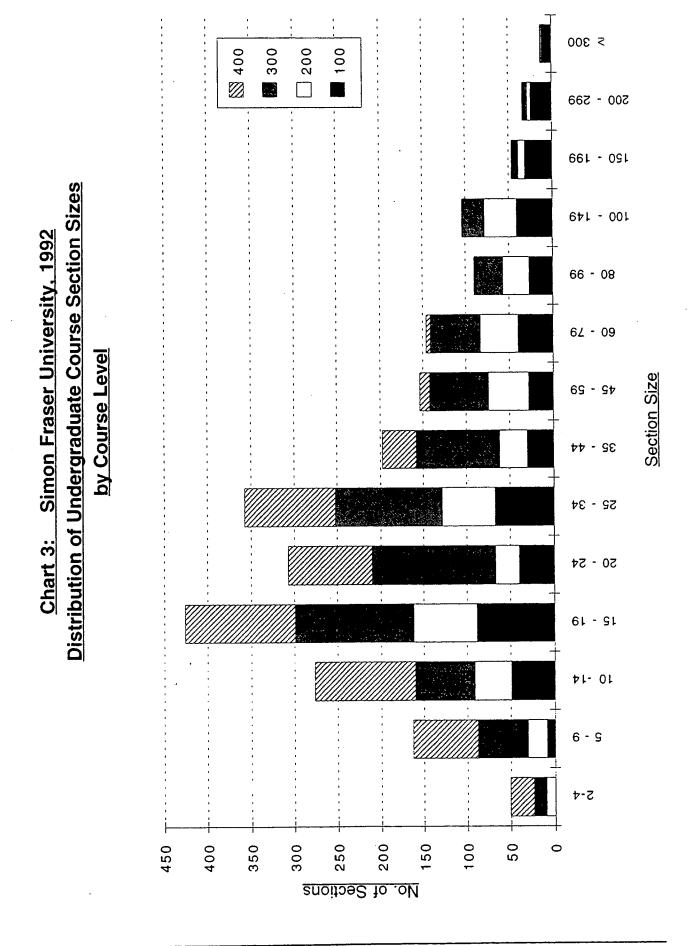
A number of University reports in recent years have made reference to size and growth. Challenge 2001, encouraged "moderate growth" (p. 10) in the core disciplines of the Humanities and Social Sciences with more rapid growth in other fields. The Task Force on University Size (1988) recommended a target University population of 11,500 undergraduates (head count). The University's 92-3 undergraduate head count was 15.239.

The University's total size influences average course size. This is a central issue, especially for an institution like Simon Fraser which has experienced rapid growth while making wide use of a tutorial system that relies on small classes. In its early meetings, SCIMO discussed what was meant by an "efficient" system of instruction. We grappled with this without reaching a consensus. Nonetheless, class size must be an important component of any consideration of the efficiency and effectiveness of a system of instruction.

Class sizes at Simon Fraser are widely distributed, as shown in Chart 3 and Tables 3 to 6. This distribution is skewed towards small course sections; the modal section size is between 15 and 19 students and only about 7% of sections have enrollments of 100 students or more. These numbers invite an investigation of their future feasibility. For example, can the University continue to offer as many as 51 course sections (not including directed studies and reading courses) with undergraduate enrollments of 4 students or fewer, as it did in 1992/93? Certainly, a justification must be presented for classes of this size, and, perhaps, for all classes of under 20 students at the undergraduate level. Other issues have been raised regarding small and limited-enrollment courses, including the frequency of offering and criteria for determining their viability.

SCIMO's Survey asked students to indicate how effective they found various types of scheduled learning environments.³ The "very" and "somewhat" responses were as follows:

Due to the wording of Question 9, we are not sure that all students answering this question have experienced all the different types of learning environments specified.



SIMON FRASER UNIVERSITY... COURSE SECTION SIZE DISTRIBUTIONS

| | GRAD IOTAL | 16 24 | | 12 69 | 6 110 | 2 67 | 3 108 | 52 | 40 | 29 | 6 | 6 | - | | | 61 582 | | GRAD TOTAL | 88 139 | 135 298 | | | 18 325 | | 2 200 | | 146 | 06 | 104 | 47 | 34 | 13 | |
|---------------|--------------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|-----------|-------|--------------|--------------------|--------------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|-----------|-------|--------------|
| | 400 | 7 | 22 | 22 | 35 | 26 | 38 | 18 | 4 | 7 | | | | | | 174 | | 400 | 27 | 92 | 117 | 127 | 97 | 106 | 40 | 12 | 2 | - | - | | | | 000 |
| | 300 | | - | 17 | 42 | 23 | 30 | 16 | 4 | 8 | 4 | 4 | - | | | 169 | | 300 | 14 | 26 | 69 | 137 | 143 | 123 | 96 | 68 | 58 | 32 | 25 | 80 | 9 | - | |
| iter | 200 | - | 6 | 8 | 16 | 7 | 17 | 4 | 8 | 7 | 4 | 4 | - | | | 86 | ar Year | 200 | 10 | 22 | 42 | 74 | 27 | 62 | 32 | 46 | 43 | 30 | 37 | 8 | 4 | - | , |
| 92-2 Semester | 100 | | | 10 | 1 | 6 | 20 | 14 | 14 | 12 | - | - | | | | 92 | 1992 Calendar Year | 100 | | 6 | 49 | 88 | 40 | . 29 | 30 | 28 | 40 | 27 | 4 | 31 | 24 | - | , |
| Table 4. | Section Size | 2-4 | 6 - 9 | 10 -14 | 15 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 59 | 62 - 09 | 66 - 08 | 100 - 149 | 150 - 199 | 200 - 299 | > 300 | All Sections | Table 6. | ize , | 2-4 | 5 - 9 | 10 -14 | 15 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 59 | 60 - 09 | 66 - 08 | 100 - 149 | 150 - 199 | 200 - 299 | ≥ 300 | O - 1 4 |
| | TOTAL | 29 | 129 | 148 | 183 | 129 | 133 | 73 | 53 | 53 | 42 | 52 | 19 | 4 | 5 | 1,100 | | TOTAL | 48 | 105 | 133 | 177 | 129 | 147 | 7.5 | 62 | 64 | 36 | 43 | 27 | 20 | 80 | 1,00 |
| | GHAD | 40 | 57 | 31 | 19 | 9 | 10 | | - | | | | | | | 164 | | GRAD | 32 | 99 | 30 | 19 | 10 | 17 | 7 | | | | | | | | 400 |
| | 400 | 12 | 32 | 48 | 20 | 39 | 35 | 14 | 4 | 8 | | - | | | | 237 | | 400 | 80 | 22 | 47 | 42 | 32 | 33 | 8 | 4 | - | | | | | | 904 |
| | 300 | 10 | 30 | 30 | 54 | 52 | 39 | 35 | 23 | 24 | 16 | | 2 | 4 | | 333 | | 300 | 4 | 15 | 22 | 41 | 65 | 54 | 45 | 31 | 56 | 12 | 10 | 9 | 7 | 1 | 700 |
| ster | 200 | 2 | 7 | 16 | 56 | 14 | 24 | 15 | 18 | 15 | 15 | 17 | - | 8 | - | 176 | ster | 200 | 4 | 9 | 18 | 32 | 9 | 21 | 13 | 20 | 21 | = | 16 | 9 | 7 | | 176 |
| 92-1 Semester | 100 | | ဗ | 23 | 34 | 15 | 25 | 6 | 7 | 12 | Ξ | 23 | 16 | 8 | 4 | 190 | 92-3 Semester | 100 | | 9 | 16 | 43 | 16 | . 55 | 7 | 7 | 16 | 15 | 17 | 15 | 16 | 7 | 000 |
| Table 3. | Section Size | 2-4 | 6 - 9 | 10 -14 | 15 - 19 | 20 - 24 | 25 - 34 | 35 - 44 | 45 - 59 | 62 - 09 | 80 - 99 | 100 - 149 | 150 - 199 | 200 - 299 | > 300 | All Sections | Table 5. | Section Size | 2-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-34 | 35-44 | 45-59 | 62-09 | 80-99 | 100-149 | 150-199 | 200-299 | > 300 | All Coctions |

urbour Centre which are included). b) Excludes directed studies, distance education, coop, practicum and field courses.
c) Excludes all off-campus courses (except for courses taught arbour Centre whi Source: IAA Database

| seminar | 95% |
|----------------------|-----|
| small (<100) lecture | 94% |
| tutorial | 77% |
| lab | 75% |
| large (>100) lecture | 68% |
| open lab | 62% |

Students were also asked how important group work and interaction with other students was in their learning. Over 70% said it was "very" or "somewhat" important although few students initiated such learning environments themselves.

The accepted belief regarding small classes seems to be that they represent a pedagogic ideal, but a budgetary liability. But the SCIMO Student Survey found that students believed they learned better in seminar and small lecture class settings than in large lectures. However, they did not find seminars better than small lectures. Many studies have failed to demonstrate that student achievement is worse in large classes than in smaller sections of the same course⁴. According to one study at Brigham Young University, increasing class size from 30 or so students up to several hundred may not radically affect achievement. Similar findings have emerged in other studies. Though class size has little effect on achievement for competent students, it does have a negative effect on students' attitudes. Also, very large class size can have a detrimental effect on faculty morale and stress levels⁵.

This research leads to the conclusion that, when discussing the efficacy of large classes, one is dealing more with faculty perceptions and workload concerns than with student performance, though it is hard to think of these as unrelated.

The recent Faculty of Science Quality of Teaching Task Force Report (1992) has recommended a ceiling for large lectures of 200 students. This recommendation stems from observations made by members of the Task Force of classes ranging up to 350 students in which "the noise level was very high, discipline lacking, and professor-student interaction zero" Earlier, the Task Force on the Quality of Service (1990) (TFQS) recommended that "small group components of scheduled courses be reduced to a maximum of 17 students". Under the University's current collective agreement with the Teaching Support Staff Union average tutorial size is now below this.

Goettler-Sopko, S. (1990). "The effect of class size on reading achievement." Resources in

Education Database.

Williams, D.D. et al. (1984) "Class size and achievement among college students." Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA, April 23-27, 1984. 5

The following criteria could be used to justify low enrollment courses.

- 1. Essential resources are unavoidably limited (e.g., laboratory space, equipment, studio space).
- 2. In comparison with other courses in the discipline, extensive interaction between student and instructor is:
 - a. essential to the realization of the course's objectives;
 - b. necessary with all students in the class; and
 - c. inherently time consuming.
- 3. The course content is a required part of the program.

Note that this list does not include the possibility that class size should be kept small for the sole reason that the designated instructor is considered less effective with larger classes or prefers smaller sized classes.

Recommendation 14

Normally, no course section should be counted as part of a faculty member's teaching responsibilities with the following enrollment:

100 and 200 level courses 300 and 400 level courses graduate courses

fewer than 15 students fewer than 10 students fewer than 5 students

Analytical Studies should present SCAP with a report on low enrollment courses annually.

2. Learning Environment

Studies regarding class size suggest that the University might be able to maintain the cost-effective benefits of large classes if efforts were made to enhance students' attitudes toward them and if they were augmented with tutorials, seminars, laboratories and workshops that provided the kinds of educational experiences which students value. To achieve the former, we must recognize that students' attitudes toward large classes are correlated with faculty attitudes and faculty adeptness at handling such classes. There is no question that management problems are exacerbated in large classes.

Research suggests that by helping faculty become more comfortable and effective in large class settings, we can improve the attitudes of all concerned. At Simon Fraser, workshops on such topics as managing social and physical control of the classroom, conducting class discussions and responding to questions, using small group techniques in large

⁶ Herr, K.U. (1989) Improving teaching and learning in large classes: A practical manual. Colorado State University.

classes, and using educational media effectively have been developed. These workshops should be offered on an annual basis.

Recommendation 15

The University should provide the instructors of large classes with support in the form of workshops, appropriate administrative assistance and workload recognition.

3. The Tutorial System

Learning in Tutorials

Simon Fraser University's tutorial system is not unlike the mountain on which our main campus sits. Some see the system as an essential feature of the University. There are senior faculty who assert that they came to Simon Fraser, in part, because of the potential they saw in the tutorial system. It was viewed as an exciting innovation, a clear acknowledgement that an important part of learning was experiential and interactive. The very architecture of the University supports this methodology, with many small group seminar rooms.

Others do not consider the tutorial system to be universally effective or, certainly, sacrosanct. A recent Dean's Forum in the Faculty of Arts clearly revealed both these perspectives. Some individuals expressed the opinion that upper division classes should not be taught by a graduate student for half of the class time when a faculty member could do a superior job alone in the course, while others disagreed, calling the tutorial a valuable learning experience for both undergraduates and Teaching Assistants.

There is general support for the educational value of small group settings⁷. By viewing learning as an interactive process we elevate it from the level of "spectator sport" and acknowledge that a great deal of what our students will achieve when they leave university will be in a group context. In a more general sense, then, successful tutorials provide the opportunity to learn interpersonal skills and to take active responsibility for one's learning.

Research evaluating the effectiveness of various small group instruction methods in higher education does not generalize well to Simon Fraser's situation. Our use of this instructional method is somewhat unique, especially in terms of our heavy reliance on it in undergraduate education. A number of studies report success with small group instruction in remedial settings, as well as in ESL classes, or classes teaching writing skills. As noted above, the SCIMO Student Survey reported that students tend to report greater satisfaction with classes that afford an opportunity for interaction with an instructor and other students.

Dixson, M.D. (1991). "Group discussion and individual critical thinking processes: an interactive perspective". Resources in Education Database.

But is this what we are actually doing in our tutorials at Simon Fraser? This appears to be one of those questions for which everyone has a subjective answer, whereas little in the way of objective evidence exists. What, exactly, is the range of activities in our tutorials? Experienced observers suggest that our tutorial system is not being used to its full potential. Few departments have the time or resources to adequately train their TAs so as to maximize the effectiveness of tutorials. Often, TAs choose the "default option," which is to lapse into the teaching model they are most used to -- the lecture. As a result, many tutorials are not qualitatively different from lectures. One exception is the open laboratory. The Faculty of Science Quality of Teaching Task Force concluded that open labs, in which students come to a central location on a drop-in basis. are "relatively successful." As noted above, the respondents in the SCIMO Survey rated open labs as the least effective learning environment, but this conclusion might be based on students inadequate knowledge and experience in the range of learning enrollments mentioned in the past.

SCIMO believes that departments should bring an open mind to questions of preferred learning settings. Departments should give careful thought to the match between the pedagogies used in tutorials and learning objectives. Where larger course groupings are used, it seems important to provide students with encouragement and opportunities for interactive learning.

Teaching Assistants

Most of our small group teaching is in tutorials and most tutorials are taught by Teaching Assistants. The SCIMO Survey results show that 69% of students felt that "all" or "most" Teaching Assistants were generally interested in teaching. Almost 80% found them responsive to questions while 61% said that "all" or "most" were able to explain and 52% said "all" or "most" challenged them intellectually.

It is obvious that we cannot expect our graduate students to come equipped with the skills necessary to conduct effective tutorials. Unfortunately, there are major logistical problems associated with adequate training. First among these is that such training is time-consuming. Our annual TA Day draws between 80 and 90 percent of our new TAs. However, it consists at most of four one-hour sessions plus a 90-minute follow-up in January. Other universities run 3-5 day training programs, usually in August. At one time, Simon Fraser offered a series of sessions in the fall semester but they were discontinued for financial reasons.

Another approach to TA training would be a graduate course in university teaching such as is offered at the University of Victoria and elsewhere.

The Commission of Inquiry on Canadian University Education reported that while universities collectively spend more than \$93 million annually in TA salaries, the amount earmarked for TA training was infinitesimal. Simon Fraser University is no exception. The annual cost of TAs is about

6.3 million (1992/93) and the direct cost of the current TA training is 40,000.

One important source of training for TAs is the instructors with whom they are working. This training is only as good as the instructor's skills and motivation. The University should encourage departments to provide faculty members with guidance on working with TAs through the effective use of the Time Use Guidelines and the development of departmental handbooks.

Many graduate students report difficulty balancing their roles as student and TA. Graduate students have sometimes been asked to postpone graduate research fellowships because the department was in desperate need of TAs that semester. Given the pressure that many graduate students feel to complete their program in a timely fashion, a lengthy training program might be difficult to initiate.

In addition to adequate training, another issue is the use of international students as TAs. Language and cultural differences between TAs and students have made for some less-than-ideal tutorials. The TFQS recommended that international graduate students be assessed in order to evaluate their language abilities and their needs regarding introduction to a new culture, and that they be given TA responsibilities that are "congruent with their language abilities." Other universities, such as the University of Colorado, run three-day orientations for their international TAs. At Simon Fraser, a program is now offered to facilitate international students' acculturation and fluency in English.

SCIMO believes that the tutorial system has the potential to be an extremely effective element of our pedagogy. Actions are required in order for this potential to be realized.

Recommendation 16

The Centre for University Teaching should develop a program which could be adapted to varying departmental needs to assist in the training of TAs and for instructors in using TAs. Faculty members should be encouraged to use tutorials more effectively and should actively participate in the training of TAs.

Recommendation 17

New graduate students should not be appointed as teaching assistants in their first semester at SFU. The first semester should be spent getting a good start on their academic program, becoming familiar with the University environment, training to be a TA, and learning about university teaching.

Recommendation 18

The Faculty of Education should work with the Centre for University Teaching to design a graduate course in university teaching.

Recommendation 19

The use of small group or individual learning settings other than the standard tutorial should be expanded by Departments and Faculties.

Recommendation 20

Continuing Studies should be responsible for ensuring that a course is available to provide special language and cultural training for international students.

4. Instructional Technology

SCIMO heard informal presentations from a number of people who are working in various units concerned with the use of technology in instructional delivery at Simon Fraser. From these presentations, the Committee was left with the impression that, while it is impossible to stay on the leading edge of technology and stay even close to budgetary limits, the University is not lagging behind its sister institutions in the quantity and quality of hardware and expertise to be found in our audio-visual and multi-media facilities across the University. Another general impression is that these facilities operate in relative isolation from one another, thus hindering the possibility for constructive collaboration. This section provides a brief description of each facility together with discussion of the potential for collaboration and increased use of facilities by instructors.

The Centre for Distance Education offers a majority of its courses via print materials, typically a textbook and a collection of readings. Some courses have audio lecture tapes. In the near future, there could be video hookups via satellite to allow for interaction between instructor and distance students. This technology exists and has been used by the Open Learning Agency. Another promising use of technology is computer-mediated communication (CMC). In CMC, students and instructor interact via a computer forum. This is especially beneficial for students who are reticent to talk in a regular tutorial setting. It also allows students the time to formulate their comments and edit them before presenting them to the group.

Academic Computing Services offers high-tech support in many areas of instructional enhancement. Using scanners, optical character recognition applications, laser disks and other video technology, instructors can convert hard copy text and graphics to word processing files. The files can be modified (for example, colour-enhanced) for storage on disk o videotape to be shown in class as controlled by computer program or manually by the instructor. Overhead transparencies can also be made from hard copy. This system allows instructors to customize visual aids

with relative ease and to store information on computer disk or videotape. Information stored on CD ROM or laser disk (which is, admittedly, more complicated) can be accessed in any order the instructor desires.

EXCITE (Exemplary Centre for Interactive Technologies in Education) deals with applications of technology to education. What sets EXCITE apart is that it is in the business of developing software and media presentations. Its work is varied and innovative, ranging from the production of laser disks to educational multimedia displays in airports to a widely-distributed magazine for teachers produced in collaboration with Canada Post.

The Centre for Educational Technology in the Faculty of Education has facilities which range from a self-help area for the production of teaching aids, to microwave television communication with a local high school. It also has an extensive inventory of equipment. This equipment and these facilities are restricted to members of the Faculty of Education.

The Instructional Media Centre is the largest educational technology unit at the University with 26.5 complement staff and an annual operating budget of \$1.2 million. IMC's mandate covers media resources, graphic services, photography and computer/film imaging, and audio/visual and technical services on the Burnaby and Harbour Centre campuses. It manages approximately 6,000 pieces of equipment and the video and film library contains some 8,000 titles, augmented by another 1,500 brought in annually from other sources. IMC also handles the audiotaping of lectures which are used by students 44,000 times annually.

All of the representatives who spoke to us share at least two characteristics. First, they hold a firm belief in the potential contribution technology can make to education. Second, they appeared to know less than they might about one another. It is worth exploring some of the ways that these different units could coordinate their efforts. Other universities (UBC, for example) have recently made organized efforts to disseminate knowledge of new instructional technologies and to co-ordinate their adoption across the University.

Recommendation 21

SCIMO recommends that a task force be established to assess the potential for improving and extending the use of educational technology in the following ways:

a) enhancing the learning process,

b) taking advantages of technology for instructional efficiency;

c) providing financial support for innovative educational technology ventures;

d) facilitating communication and co-operation among educational technology users.

In particular, the task force should be charged with investigating the technical, financial and instructional possibilities and problems associated with developing greater reliance on mixed-media methods of instruction.

VI TEACHING ASSIGNMENTS

1. Measuring and Assigning Teaching

There are two important issues involved in the University's processes for measuring and assigning teaching workload. These are equity, both across departments and between individual faculty members, and efficiency of the University's instructional system.

There is considerable misunderstanding inside and outside the University concerning teaching responsibilities and the amount of time faculty in different departments spend on undergraduate and graduate instruction. For the most part this arises through a lack of information concerning what takes place in different programs.

The aim of these recommendations is to ensure not only that there is equity in the assignment of teaching responsibilities but that faculty are also provided with sufficient information to see that this is so.

SCIMO's recommendations in this area are based on the following assumptions: that teaching is a fundamental component of the duties of every faculty member, as is the development of a strong research program and that quality and achievements in both areas contribute to the success of faculty members.

Recommendation 22

Policy A 30.03 Faculty Workload, should be renamed Faculty Teaching Responsibilities. Section 3 of the policy should be rewritten to allow for the voluntary assumption of additional teaching as a preference of tenured faculty members; additional teaching could replace some, but not all, expectation of scholarly activity.

Recommendation 23

Departments and non-departmentalized Faculties should provide the Senate Committee on Academic Planning each year with a report on the teaching assignments for the year, demonstrating how the unit is meeting the teaching assignment policy of the University. This report should include an analysis of the levels of teaching at the undergraduate and graduate level by the separate instructional categories, the average student and instructor contact hours, and the supervision of graduate students. SCAP may recommend to the Vice-President, Academic that different pedagogical styles be explored in areas of particular units.

Recommendation 24

Chairs shall continue to assign teaching responsibilities and should determine whether more or fewer courses than the normal teaching

assignment should be taught by assessing the responsibilities each faculty member has in the following areas:

the size and nature of courses assigned;

• the faculty member's research program;

 the number of graduate students supervised, and the type of supervision required;

the faculty member's willingness and ability to participate in

the administration of the department;

 the teaching norms in similar departments at other Canadian Universities.

Recommendation 25

Policy A 30.03 should be revised so that, where a faculty member has a research grant or contract, a course buy-out may be arranged if it is in the best interest of both the University and the faculty member. Each course buy-out should be set at 20% of the average faculty member's salary, and no more than 25% of the normal teaching assignment may be bought out in a two-year period.

In view of the recommendations on teaching assignments, and recognizing the need for senior academic administrators to keep in touch with classroom teaching:

Recommendation 26

Every senior academic administrator (Dean and above) should teach a course at least once every two years.

VII ADMINISTRATION OF THE TEACHING PROGRAM

1. The Trimester System

Simon Fraser University is unique among Canadian universities in operating throughout the year with a full trimester system. The operation of this less traditional delivery system was an integral part of Simon Fraser from its initial planning. The advantages of the trimester system are flexibility and better utilization of facilities, but the trimester system has higher operating costs.

Flexibility

Program Entry: Once admitted, the trimester system allows students to enter their chosen University program during any of the three semesters.

Study combined with other responsibilities: The trimester system allows tremendous flexibility in timing of study, employment, time-out, research and family responsibilities. The major societal shifts of the last two decades have increased the demand for flexibility.

Co-operative Education: The trimester system is much better suited to the Co-operative Education Program because students can schedule work semesters throughout the year, not just in the summer. Employers are able to provide job placements for Co-op students all year long.

Flexible scheduling for faculty: The semester is clearly advantageous to faculty who can schedule teaching and research semesters in accordance with the teaching needs of the departments and their own research needs.

Utilization

Campus facilities are more fully used by year-round operation. At the present time, more than 18% of the University's undergraduate teaching takes place in the summer (summer semester, intersession and summer session). This lessens the need for capital facilities (from instructional space to parking), more of which would be required if those students were studying in the Fall and Spring semesters. However, there could be still greater use of the summer semester.

Operating Costs

Academic Costs: Teaching and other instructional costs make up a large portion of the total operating costs of universities. Under the trimester system these costs are increased because the same courses must be offered more frequently to provide program continuity and summer courses are smaller.

Administrative Costs: The trimester system has higher administrative costs. Most departments (Registrar's, Library, Bookstore, Academic Departments and Faculties) must be continuously staffed at the same level because there is no slack period. Some workload aspects for many of these units are tripled because each starting semester has students who must be registered, be advised, be given library instruction, buy textbooks, pay fees, get parking places and so on. The Library, Student Counselling, Cashiers and other departments which provide direct service to students require additional staffing to provide for the additional hours of service required for year round operation. As there is no natural vacation time, extra staff are sometimes required to keep essential services in full operation. The costs of maintenance also increase because of the need to undertake repairs more frequently because of increased use.

Operating grants to Simon Fraser in the early years acknowledged the higher costs of operating the trimester system. Recently, operating grants have not included specific support for the costs of the trimester system. However, the Government has recently received a report which recommends that Simon Fraser should be given an additional grant (the amount to be negotiated) to recognize the additional costs associated with the trimester operation.

Scheduling

Traditionally, the summer semester has been less attractive to students because their chances of employment were greater during the summer. Work patterns are changing but the rhythm of fall and spring attendance persists. Summer core programming has not been adequate to encourage students to spread their studies more evenly through the three semesters. Any increase in summer core programming should avoid increasing the use of sessional instructors. Data available for the 90/91 year show that, for instruction offered on the Burnaby campus, there was relatively little difference by semester in the percentage of course sections taught by regular faculty and others instructors.

Recommendation 27

Given the importance of student access and the cost of operating the trimester system, Departments should give priority to the provision of core programming in all three semesters.

2. Evening Courses

Simon Fraser has been operating with an extended-day timetable since the early 1970's. Evening courses have been central to the University's credit programming in Downtown Vancouver and in many other locations away from Burnaby Mountain. Almost 40% of the respondents to the SCIMO Survey said that they were currently taking an evening course but only 13% of these were doing so because they needed evening courses. The others were in evening courses because there was no day section or because the day section was full.

Control and direction for course planning for undergraduate evening students has been provided by Continuing Studies. When the University began to offer evening courses in the early 1970's, many students who took them were generally evening-only students. It appears that this has changed. The majority of evening students are now also day students and there seems to be less need for a clear distinction between the day program and the evening program. The proportion of the total enrollment which is evening only has declined: from 11% in 88-3 to 8% in 90-3. The reasons for this could include a change in student needs or the shift in the University's admissions priorities which resulted in fewer mature student admissions. In 86/87, the "Other" admission category which includes mature students accounted for 25.6% of the University's new admissions; by 92/93 the target for "Other" admissions had fallen to 15.6% of the University's new admissions.

Recommendation 28

Continuing Studies, in consultation with Analytical Studies and Departments and Faculties, should prepare a report assessing the needs of evening-only students and the needs of the external community for access to evening-only, and weekend study. A review of program needs should be undertaken every three years. Where the demand exists, Departments and Faculties should integrate evening program offerings into their course planning.

3. Advance Registration

Simon Fraser University currently operates on a trimester system in which many of the administrative duties related to course planning, registration and scheduling are repeated three times a year. For example, in March most departments are finalizing their course offerings for the fall semester. Available instructional resources are matched to specific courses, sections, and estimated student demand. Requests for course schedules are forwarded in April to the Registrar's office where classrooms and times are attached. Then the course timetable and registration guide are printed and mailed to all students who were registered in any of the three previous semesters in June. Students start to register by telephone for fall courses in July and classes start in September. At the department level, another round of activity has started in July, or earlier, by determining the spring semester's course menu, and so on.

Much course planning at Simon Fraser is still largely a one-semester-at-atime process and considerably more time is spent administering the registration and scheduling of instruction here than at traditional universities. As a result, Simon Fraser has significantly higher administrative costs because of the increased work of year-round operation and the cyclical nature of registration.

We know that many of our students have work, family and community commitments outside the University but are unable to obtain course placement commitments for more than one semester in advance. This is in contrast to the University of Victoria and the University of British Columbia where students are able to teleregister simultaneously for fall and spring session courses. Such a system at Simon Fraser would mean that most students near graduation could secure course places for the whole year in order to ensure graduation in a timely fashion. Other students would be able to plan finances, work schedules and course schedules one year in advance. Co-op students would be able to plan their course and work semesters with much greater reliability. Most students would register in July and August of each year and be able to concentrate on other tasks without the interruption of registration for spring and summer.

The SCIMO Survey asked how many students would prefer to register on an annual instead of a semester basis. Only about half the respondents would prefer this, hardly strong support for such a change, but written comments suggest that many students responding "no" did not realize that various parts of the current registration system would be changed if we had an annual registration system.

The objective of such a system would be to become more efficient in processing, advising and registering students and to provide them with a better service. Successful implementation of the telephone registration system and recent moves towards decentralization of instructional budgets to the Faculty level would assist in reaching this objective. The major change that would take place if such a system were adopted is that, on the surface, Simon Fraser would begin to look and feel more like a traditional university. Underneath the surface, we would retain and even strengthen many of the benefits of the semester system, such as flexibility for students and faculty.

Recommendation 29

The Registrar should undertake a feasibility study of an advance course planning and registration system which would operate with a one-year cycle.

VIII ACCOUNTABILITY ISSUES

According to <u>Challenge 2001</u>, Simon Fraser University is committed to financial, professional, scholarly, and teaching accountability through several mechanisms that ensure integrity in these areas. The University's accountability to its students has been the subject of much of this report.

The information from the SCIMO survey has been very helpful in confirming and defining trends, attitudes, and concerns of the student body. With the groundwork laid, follow-up surveys building on the work of the SCIMO survey could be undertaken without a large scale expenditure of time or resources. This would greatly expand the information base of the University.

The external pressures affecting post-secondary institutions are growing. Universities are expected to produce more results for the public with reduced resources and increased enrollments. Employers want broadly educated and specifically trained workers who can adapt and be flexible in changing work environments. The scholarly disciplines expect that Simon Fraser faculty will generate quality research results that can be shared and will be an impetus to further research. Thus, our University must be accountable in a number of different domains. This means agreeing on, and providing, information on accountability standards and measures. These might include:

periodic surveys of graduates and students leaving the institution.

Post-graduation surveys are being carried out in a number of areas. One office should be designated as responsible for coordinating and receiving survey information.

- periodic surveys of employers regarding the effectiveness of the post-secondary education for those employed and the needs of employers for post-secondary education and professional development;
- public annual reporting of the University's activities.

The University's annual narrative report was discontinued some years ago for financial reasons. However, the need to keep the public informed on the developments and initiatives in the University has not abated, and consideration should be given to reinstating the report in a cost effective and useful format.

Recommendation 30

The University should assess the effectiveness of its programs by surveying students in progress, students who have graduated, and students who have left the institution without graduating, as well as employers, to ensure that the University is fulfilling its mandate to provide quality education which is the foundation for a highly skilled population. The Office of Analytical Studies should be the coordinating office for surveys of former students; units interested in surveying students who have graduated should consult with Analytical Studies prior to undertaking a survey, and survey results should be returned to that office.

Recommendation 31

The University should publish an annual narrative report to the people and the government of British Columbia.

Recommendation 32

The mandate of SCIMO as an <u>ad hoc</u> committee should be taken up by a new standing Senate Committee on University Teaching. This should report to Senate through the Senate Committee on Academic Planning.

SENATE COMMITTEE ON INSTRUCTIONAL METHODS AND ORGANIZATION

Membership

| Vice-President, Academic (or designate) | Chair | J. Munro |
|---|----------------------------|--|
| Four Faculty Members | Elected by Senate | P. Coleman L. Palmer G. Poole G. Strate |
| One Graduate Student | Elected by Senate | K. Giffen |
| One Undergraduate Student | Elected by Senate | Z. Barabás |
| Two Members (at-large) | Appointed by the President | J. Driver K. Heinrich |
| Resource Persons | | |
| Director, Analytical Studies | | W. Wattamaniuk |

Terms of Reference

Director, Academic Planning Services

- 1. To review the patterns of enrolment growth from 1987 to the present and into the future, and to assess the costs and benefits of that growth.
- 2. To evaluate current and alternate instructional methods, organization, and incentives for instructional excellence and innovation to improve the University's instructional quality and cost-effectiveness.
- 3. The Committee will seek input from across the University in its deliberations. In particular, Faculty Deans will be asked to report on the situation facing their own units.
- 4. The Committee will be a sub-committee of the Senate Committee on Academic Planning. It will report to SCAP before September 15, 1992.

Membership and terms of reference approved by Senate at its meeting of March 2, 1992.

A. Watt

SIMON FRASER UNIVERSITY

STUDENT ACADEMIC EXPERIENCE QUESTIONNAIRE

FALL OF 1992

Prepared by Sue Morris, Analyst Office of Analytical Studies February, 1993

SIMON FRASER UNIVERSITY RESULTS FROM THE FALL 1992 STUDENT ACADEMIC EXPERIENCE QUESTIONNAIRE

A. EXECUTIVE SUMMARY

I. INTRODUCTION

Increasing enrolments and increasing budgetary constraints are two prevalent circumstances at Simon Fraser University. At the same time more and more pressure is being placed on SFU to be accountable to its students and funding sources. As part of its mandate to examine the University's instructional system and to make recommendations for improving its quality and cost effectiveness, the Senate Committee on Instructional Methods and Organization (SCIMO) at SFU decided to survey its primary patrons - the students - with respect to the quality of SFU's instructional system.

II. OBJECTIVE

In order to address the quality of SFU's instructional system, SCIMO developed a questionnaire which attempted to examine five areas of concern: course availability, academic advice, instructional methods, instructor and course effectiveness, and registration procedures.

III. METHODOLOGY

A stratified sample of 1,543 students was randomly selected to be surveyed in 20 undergraduate classes. In total, 1042 questionnaires were completed and returned. The sample roughly approximates the university student population with the exception of the Faculty of Arts and the Faculty of Education which are underrepresented. A disproportionate number of first year students was captured in the sample because relatively large classes were selected to facilitate the distribution of surveys.

The following report presents a simple frequency analysis of the questionnaire. In many instances, significant differences were found in responses according to Faculty, major area of study, or year level of student.

Statistical significance at the .05 level (accurate 19 times out of 20, or 95% confidence in the accuracy of the results) was required for all data analysis.

IV. RESULTS

Registration

- Students were equally distributed between wanting to register one semester in advance (47.5%) or two semesters in advance (46.8%).
- 73.9% of students stated that it would be very or somewhat useful for them to know their exam schedule at the time of registration.

Course Availability

- 82.7% of students reported that they got the number of courses they wanted this semester
- 57.6% of students stated that they did not get the specific courses they wanted this semester
- Slightly over half (54.2%) of students stated that it was taking them longer than expected to complete their degree at SFU. The primary reason for the delay in program completion identified by students was that courses are unavailable because the sections are full.
- 13.7% of students indicated that they were currently taking a Distance Education course from SFU. The principal reason identified by students for their participation in Distance Education courses was that they could not get in to "face-to-face" sections of the course.
- 38.9% of students reported that they were currently taking an evening course from SFU.

Instructional Methods

- The seminar format is most highly regarded, with 94.5% of students reporting that they learn very or somewhat effectively in this learning environment.
- The large lecture environment is valued the least, with only 68.4% of students stating that they learn very or somewhat effectively in this learning environment.
- Although students state that it is important to have the opportunity for group work or interaction with fellow students in courses, group work does not appear to be fostered in the classroom, nor is it initiated by students.
- 70.7% of students stated that it was very or somewhat important to have the opportunity for group work or interaction with fellow students in courses.
- 13.8% of students stated that they often or always were required to work in group or interact with fellow students on course assignments.
- 32.6% of students indicated that they often or always were required to work in groups or interact with fellow students in tutorials or labs.

<u>Instructor/Course Effectiveness</u>

- Nearly three-quarters of students indicated that all or most of their course instructors at SFU were effective in the various elements of instruction (identified in question 14).
- 75.4% of students stated that they were either very or somewhat satisfied with the instruction they had received at SFU.
- Just over half of the students surveyed (51.9%) reported that all or most of their teaching assistants they had were able to challenge them intellectually.
- 61.3% of students indicated that all or most of their teaching assistants were able to explain topics clearly.
- 87.6% of students stated that their teaching assistants were responsive to questions.

- Approximately one-quarter of students (25.9%) indicated that their workload in SFU courses was either not very or not at all manageable.
- 21.7% of students who had completed a teaching evaluation form at the end of a course
 felt that their comments were either very or somewhat influential on the future teaching
 performance of the course instructor.
- Similarly, 21.9% of students who had completed a teaching evaluation form at the end of a course felt that their comments were either very or somewhat influential on department level evaluations of course instructors.

Academic Advice

- 99% of students stated that they had used their SFU calendar for planning their academic programs and selecting their courses
- 44.9% of students stated that they had sought academic advice from their Department or Faculty
- 40.1% of students reported that they had sought academic advice from the Academic Advice

 Centre

Student Comments

The most common concern raised by students was the decreasing availability of desired and required courses. More specifically, students state that there is an insufficient number of classes, especially at the upper levels or for required courses, available to them and therefore they are being forced to decide whether to expend their energies on courses of no interest to them or no use to their program or to pursue their education elsewhere. For those students who remain at SFU, it is believed that their degree will take them longer than four years to complete solely because they do not have access to the courses required to complete their degree. The financial burdens placed on the student as a consequence, either immediately or in terms of the reduced remission granted to them on their student loans, are becoming increasingly unmanageable.

Overall, student disillusionment is pervasive and the level of frustration high. Nonetheless, for the most part, the students who took part in the questionnaire welcomed the opportunity to express their views and felt that their responses to the questionnaire will be seriously considered by the Senate.

Q1. Did you get the number of courses you wanted this semester?

| Yes | 855 | 82.7% |
|-----------------|--------|--------|
| No | 179 | 17.3% |
| Total Responses | . 1034 | 100.0% |
| Missing Cases | . 8 | |

Q1a. How many more courses did you want to take?

| 1 | 62 | 25.6% |
|-----------------|-----|--------|
| 2 | 41 | 16.9% |
| 3 | 7 | 2.9% |
| 4 | 29 | 12.0% |
| 5 | 28 | 11.6% |
| 8 | 66 | 27.3% |
| 9 | 8 | 3.3% |
| 10 | 1 | 0.4% |
| Total Responses | 242 | 100.0% |
| Missing Cases | 800 | |

Q2. Did you get the SPECIFIC courses you wanted this semester?

| Yes | 438 | 42.4% |
|-----------------|------|--------|
| No | 595 | 57.6% |
| Total Responses | 1033 | 100.0% |
| Missing Cases | 9 | |

Q2a. How many SPECIFIC courses were you unable to get?

| 0 | 5 | 0.8% |
|-----------------|-----|--------|
| 1 | 180 | 29.2% |
| 2 | 240 | 38.9% |
| 3 | 105 | 17.0% |
| 4 | 35 | 5.7% |
| 5 | 6 | 1.0% |
| 6 | . 2 | 0.3% |
| 7 | . 1 | 0.2% |
| 8 | 30 | 4.9% |
| 9 | 11 | 1.8% |
| 10+ | 2 | 0.3% |
| Total Responses | 617 | 100.0% |
| Missing Cases | 425 | |
| | | |

Q3. Is it taking you longer than expected to complete your degree at SFU?

| Yes | 559 | 54.2% |
|-----------------|------|--------|
| No | 233 | 22.6% |
| Don't Know | 240 | 23.3% |
| Total Responses | 1032 | 100.0% |
| Missing Cases | 10 | |

Q3a. Why do you think it is taking you longer than expected to complete your degree at SFU? (frequencies are not provided for the first part of this question as respondents were asked to check ALL that applied)

| the courses you wanted were full | 354. | |
|--|------|-------|
| the courses you wanted were not offered in the semester you wanted | 321 | |
| the courses you wanted were offered at the same time | 252 | |
| other | 125 | |
| | | |
| circled most important as: | | |
| r | | |
| the courses you wanted were full | 174 | 46.8% |
| the courses you wanted were not offered in the semester you wanted | 86 | 23.1% |
| the courses you wanted were offered at the same time | 37 | 9.9% |
| other | 75 | 20.2% |

Total Responses

Missing Cases

372

670

100.0%

Q4. Are you currently taking a Distance Education course from SFU?

| Yes | 141 | 13.7% |
|-----------------|------|--------|
| No | 891 | 86.3% |
| Total Responses | 1032 | 100.0% |
| Missing Cases | 10 | |

Q4a. Why are you taking a Distance Education Course? (frequencies are not provided for the first part of this question as respondents were asked to check ALL that applied)

| Could not get into a face-to-face section of the course | 75 |
|---|----|
| prefer this method of study | 32 |
| home responsibilities | 10 |
| other | 56 |

circled most important as:

| Could not get into a face-to-face section of | the course | 67 | 52.3% |
|--|-----------------|-----|--------|
| prefer this method of study | | 19 | 14.8% |
| home responsibilities | | 3 | 2.3% |
| other | | 39 | 30.5% |
| - | Total Responses | 128 | 100.0% |
| | Missing Cases | 914 | |

Q5. Are you currently taking an evening course from SFU?

| Yes | 401 | 38.9% |
|-----------------|------|--------|
| No | 631 | 61.1% |
| Total Responses | 1032 | 100.0% |
| Missing Cases | 10 | |

Q5a. Why are you taking an evening course? (frequencies are not provided for the first part of this question as respondents were asked to check ALL that applied)

| the course is only offered in the evening | 228 |
|--|-----|
| could not get in to a day-time section of the course | 135 |
| work during the day | 29 |
| prefer taking evening courses | ·33 |
| other . | 57 |

circled most important as:

| the course is only offered in the evening | 184 | 50.7% |
|--|-----|--------|
| could not get intoi a day-time section of the course | 105 | 28.9% |
| work during the day | 15 | 4.1% |
| prefer taking evening courses | 19 | 5.2% |
| other ' | 40 | 11.0% |
| Total Responses | 363 | 100.0% |
| Missing Cases | 679 | |

Q6. Which of the following sources do you use for planning you academic programs and course selection? (frequencies are not provided for the first part of this question as respondents were asked to check ALL that applied)

| SFU calendar | | 990 |
|--------------------------------|---|-----|
| Academic Advice Centre | | 418 |
| Academic Departments/Faculties | | 468 |
| Other | • | 175 |

Q6a. How useful did you find the information you received from the SFU calendar?

| Very | 309 | 31.2% |
|-----------------|-----|--------|
| Somewhat | 538 | 54.4% |
| Neutral | 112 | 11.3% |
| Not Very | 30 | 3.0% |
| Not at All | 0 | 0.0% |
| Total Responses | 989 | 100.0% |
| Missing Cases | 53 | |

Q6b. How useful did you find the information you received from the Academic Advice Centre?

| Very | 80 | 19.1% |
|-----------------|-----|--------|
| Somewhat | 185 | 44.2% |
| Neutral | 76 | 18.1% |
| Not Very | 49 | 11.7% |
| Not at All | 29 | 6.9% |
| Total Responses | 419 | 100.0% |
| Missing Cases | 623 | |

Q6c. How useful did you find the information you received from the Academic Departments/Faculties?

| Very | 187 | 40.0% |
|-----------------|-----|--------|
| Somewhat | 189 | 40.5% |
| Neutral | 65 | 13.9% |
| Not Very | 18 | 3.9% |
| Not at All | 8 | 1.7% |
| Total Responses | 467 | 100.0% |
| Missing Cases | 575 | |

Q6d. How useful did you find the information you received from the "Other" source you specified?

| Very | 86 | 51.5% |
|-----------------|-----|--------|
| Somewhat | 62 | 37.1% |
| Neutral | 15 | 9.0% |
| Not Very | 3 | 1.8% |
| Not at All | 1 | 0.6% |
| Total Responses | 167 | 100.0% |
| Missing Cases | 875 | |

Q7. In future, it may be possible for you to register in courses for more than one semester in advance. How many semesters in advance would you prefer to register?

| one semester in advance | 483 | 47.5% |
|----------------------------|------|--------|
| two semesters in advance | 476 | 46.8% |
| three semesters in advance | 58 | 5.7% |
| Total Responses | 1017 | 100.0% |
| Missing Cases | 25 | |

Q8. How USEFUL would it be for you to know your exam schedule at the time you register for a course?

| Very | 473 | 45.8% |
|-----------------|------|--------|
| Somewhat | 290 | 28.1% |
| Neutral | 160 | 15.5% |
| Not Very | 73 | 7.1% |
| Not at All | 36 | 3.5% |
| Total Responses | 1032 | 100.0% |
| Missing Cases | 10 | |

Q9. How effectively do you learn in each of the following learning environments?

| Large Lecture: | | |
|---------------------------|-----------|--------------|
| Very | 87 | 9.3% |
| Somewhat | 554 | 59.1% |
| Not Very | 259 | 27.6% |
| Not at All | 38 | 4.1% |
| Total Responses | 938 | 100.0% |
| Irrelevant to my learning | 74 | |
| Missing Cases | 30 | |
| Small Lecture: | | · |
| Very | 348 | 37.7% |
| Somewhat | 516 | 55.9% |
| Not Very | 52 | 5.6% |
| Not at All | 7 | 0.8% |
| Total Responses | 923 | 100.0% |
| Irrelevant to my learning | 77 | |
| Missing Cases | 42 | |
| Seminar: | | |
| Very | 492 | 64.1% |
| Somewhat | 000 | 20.40/ |
| | 233 | 30.4% |
| Not Very | 233 32 | 4.2% |
| Not Very Not at All | | |
| • | 32 | 4.2% |
| Not at All | 32 10 | 4.2% 1.3% |

| Tutorial: | | |
|---------------------------|-----|---------|
| Very | 344 | 34.9% |
| Somewhat | 420 | 42.6% |
| Not Very | 174 | 17.6% |
| Not at All | 48 | 4.9% |
| Total Responses | 986 | 100.00% |
| Irrelevant to my learning | 23 | |
| Missing Cases | 33 | |
| Lab: | | |
| Very | 192 | 29.1% |
| Somewhat | 306 | 46.4% |
| Not Very | 136 | 20.6% |
| Not at All | 26 | 3.9% |
| Total Responses | 660 | 100.0% |
| Irrelevant to my learning | 236 | |
| Missing Cases | 146 | |
| Open Lab: | | |
| Very | 160 | 23.8% |
| Somewhat | 254 | 37.8% |
| Not Very | 161 | 24.0% |
| Not at All | 97 | 14.4% |
| Total Responses | 672 | 100.0% |
| Irrelevant to my learning | 233 | |
| Missing Cases | 137 | |

Q10. How IMPORTANT is it for you to have the opportunity for group work/interaction with fellow students in your courses?

| Very | 364 | 35.3% |
|-----------------|------|--------|
| Somewhat | 364 | 35.3% |
| Neutral | 180 | 17.5% |
| Not Very | 69 | 6.7% |
| Not at All | 53 | 5.1% |
| Total Responses | 1030 | 100.0% |
| Missing Cases | 12 | |

Q11. How often do your courses require you to work in groups or interact with fellow students ON ASSIGNMENTS?

| Always | 27 | 2.6% |
|-----------------|------|---------|
| Often | 115 | 11.2% |
| Sometimes | 313 | 30.4% |
| Rarely | 390 | 37.8% |
| Never | 186 | 18.0% |
| Total Responses | 1031 | 100.00% |
| Missing Cases | 11 | |

Q12. How often do your courses require you to work in groups or interact with fellow students in TA conducted TUTORIALS or LABS?

| Always | 61 | 5.9% |
|-----------------|-------|--------|
| Often | 274 | 26.7% |
| Sometimes | 399 | 38.9% |
| Rarely | . 221 | 21.5% |
| Never | 72 | 7.0% |
| Total Responses | 1027 | 100.0% |
| Missing Cases | 15 | |

Q13. How often do YOU INITIATE working in groups or with fellow students for your course work or for study purposes?

| Always | 27 | 2.6% |
|-----------------|------|--------|
| Often | 203 | 19.7% |
| Sometimes | 348 | 33.8% |
| Rarely | 308 | 29.9% |
| Never | 143 | 13.9% |
| Total Responses | 1029 | 100.0% |
| Missing Cases | 13 | |

Q14. Of ALL the COURSE INSTRUCTOR you have had at SFU, how many were generally:

Interested in teaching:

| Ali | 114 | 11.1% |
|-----------------|------|--------|
| Most | 725 | 70.5% |
| Not Many | 152 | 14.8% |
| None | 5 | 0.5% |
| Uncertain | 32 | 3.1% |
| Total Responses | 1028 | 100.0% |
| Missing Cases | 14 | |

| Clear on work exped | atad and ara | dina etandarde: |
|---------------------|---------------|-----------------|
| All | 119 | 11.6% |
| | 668 | 65.3% |
| Most | 217 | 21.2% |
| Not Many | | 0.6% |
| None | 6 | |
| Uncertain | 13 | 1.3% |
| Total Responses | 1023 | 100.0% |
| Missing Cases | 19 | |
| Able to explain cou | rse topics c | learly: |
| All | 70 | 6.8% |
| Most | 738 | 72.2% |
| Not Many | 202 | 19.8% |
| None | 3 | 0.3% |
| Uncertain | 9 | 0.9% |
| Total Responses | 1022 | 100.0% |
| Missing Cases | 20 | |
| Well organized: | | |
| All | 90 | 8.8% |
| Most ⁻ | 725 | 71.1% |
| Not Many | 195 | 19.1% |
| None | 1 | 0.1% |
| Uncertain | 8 | 0.8% |
| Total Responses | 1019 | 100.0% |
| Missing Cases | 23 | • |
| Able to challenge y | ou intellect | ually: |
| All | 163 | 16.0% |
| Most | 629 | 61.7% |
| Not Many | 195 | 19.1% |
| None | 10 | 1.0% |
| Uncertain | 23 | 2.3% |
| Total Responses | 1020 | 100.0% |
| Missing Cases | 22 | |
| Responsive to que | stions in cla | ss: |
| All | 200 | 19.6% |
| Most | 631 | 61.8% |
| | 176 | 17.2% |
| Not Many | 170. | 0.1% |
| None | 1 0 | 4.00/ |

1.3%

100.00%

13

21

1021

Uncertain

Total Responses

Missing Cases

Available for meetings and consultation:

| All | 214 | 21.0% |
|-----------------|------|---------|
| Most | 547 | 53.6% |
| Not Many | 156 | 15.3% |
| None | 5 | 0.5% |
| Uncertain | 98 | 9.6% |
| Total Responses | 1020 | 100.00% |
| Missing Cases | 22 | |

Fair in their treatment of students:

| All | 145 | 14.2% |
|-----------------|------|--------|
| Most | 680 | 66.5% |
| Not Many | 108 | 10.6% |
| None | 10 | 1.0% |
| Uncertain | 79 | 7.7% |
| Total Responses | 1022 | 100.0% |
| Missing Cases | 20 | |

Fair in their grading of student work:

| All | 92 | 9.0% |
|-----------------|------|--------|
| Most | 703 | 68.9% |
| Not Many | 143 | 14.0% |
| None | 9 | 0.9% |
| Uncertain | 74 | 7.2% |
| Total Responses | 1021 | 100.0% |
| Missing Cases | 21 | |
| | | |

Q15. Of ALL the TEACHING ASSISTANTS you have had at SFU, how many were generally:

Interested in teaching:

| All | 119 | 11.7% |
|-----------------|------|--------|
| Most | 580 | 57.1% |
| Not Many | 267 | 26.3% |
| None | 12 | 1.2% |
| Uncertain | 37 | 3.6% |
| Total Responses | 1015 | 100.0% |
| Missing Cases | 27 | |

| Able to explain to | pics clearly | : |
|--------------------|--------------|---------------|
| All | 61 | 6.0% |
| Most | 560 | 55.3% |
| Not Many | 365 | 36.0% |
| None | 16 | 1.6% |
| Uncertain | 11 | 1.1% |
| Total Responses | 1013 | 100.0% |
| Missing Cases | 29 | |
| Well organized: | | |
| All | 64 | 6.3% |
| Most | 545 | 54.0% |
| Not Many | 361 | 35.7% |
| None | 20 | 2.0% |
| Uncertain | 20 | 2.0% |
| Total Responses | 1010 | 100.0% |
| Missing Cases | 32 | |
| Able to challenge | vou intelled | ctually: |
| All | 62 | 6.2% |
| Most | 461 | 45.8% |
| Not Many | 412 | 40.9% |
| None | 32 | 3.2% |
| Uncertain | 40 | 4.0% |
| Total Responses | 1007 | 100.0% |
| Missing Cases | 35 | , , , , , , , |
| · | | |
| Responsive to que | estions: | |
| All | 264 | 26.0% |
| Most | 625 | 61.6% |
| Not Many | . 109 | 10.7% |
| None | 7 | 0.7% |
| Uncertain | 10 | 1.0% |
| Total Responses | 1015 | 100.0% |
| Missing Cases | 27 | |
| Competent in oral | and writter | n English: |
| All | 177 | 17.7% |
| Most | 557 | 55.7% |
| Not Many | 238 | 23.8% |
| None | 13 | 1.3% |
| Uncertain | 15 | 1.5% |
| Total Responses | 1000 | 100.00% |
| | | |

Missing Cases

42

In general how SATISFIED are you with the instruction you have received at SFU? Q16.

| ~ | | • |
|-----------------|------|---------|
| Very | 157 | 15.5% |
| Somewhat | 608 | 59.9% |
| Neutral | 163 | 16.1% |
| Not Very | 77 | 7.6% |
| Not at All | 10 | 1.0% |
| Total Responses | 1015 | 100.00% |
| Missing Cases | 27 | |

In the courses that you have taken at SFU how often did you take advantage Q17. of the opportunity to meet with instructors?

| Always | 66 | 6.4% |
|-----------------|------|--------|
| Often | 252 | 24.5% |
| Sometimes | 448 | 43.5% |
| Rarely | 213 | 20.7% |
| Never | 51 | 5.0% |
| Total Responses | 1030 | 100.0% |
| Missing Cases | 12 | |
| | | |

How MANAGEABLE is the workload in your SFU courses? Q18.

| Very | 103 | 10.0% |
|-----------------|------|--------|
| Somewhat | 646 | 63.0% |
| Not Very | 244 | 23.8% |
| Not at All | 22 | 2.1% |
| Undecided | 11 | 1.1% |
| Total Responses | 1026 | 100.0% |
| Missing Cases | 16 | |

If you generally find that the workload of your courses is too heavy, what are Q18a. the reasons? (frequencies are not provided for the first part of this question as respondents were asked to check ALL that applied)

| taking too many courses | 63 | |
|------------------------------|-----|--------|
| too many course assignments | 136 | |
| too much reading | 200 | |
| too many quizzes and exams | 58 | |
| other not related to courses | 59 | |
| • | | |
| circled most important as: | | |
| taking too many courses | 10 | 7.6% |
| too many course assignments | 15 | 11.4% |
| too much reading | 83 | 62.9% |
| too many quizzes and exams | 7 | 5.3% |
| other not related to courses | 17 | 12.9% |
| Total Responses | 132 | 100.0% |

Total Responses

Missing Cases

910

Q19. In how many courses did assignments contribute significantly to your learning?

| All | 148 | 14.5% |
|-----------------|------|--------|
| Most | 636 | 62.4% |
| Not Many | 214 | 21.0% |
| None | 12 | 1.2% |
| Uncertain | 10 | 1.0% |
| Total Responses | 1020 | 100.0% |
| Missing Cases | 22 | |

Q20. How many of the lectures that you have attended at SFU were clear and understandable?

| All | 42 | 4.1% |
|-----------------|------|--------|
| Most | 801 | 78.7% |
| Not Many | 152 | 14.9% |
| None | 1 | 0.1% |
| Uncertain | 22 | 2.2% |
| Total Responses | 1018 | 100.0% |
| Missing Cases | 24 | |

Q21. Have you ever completed an instructor evaluation form at the end of a course?

| Yes | 835 | 81.9% |
|-----------------|------|--------|
| No | 185 | 18.1% |
| Total Responses | 1020 | 100.0% |
| Missing Cases | 22 | |

Q21a. Generally speaking, how influential do you think your comments are on the future teaching performance of the course instructor?

| Very | 14 | 1.7% |
|-----------------|-----|--------|
| Somewhat | 164 | 20.0% |
| Not Very | 366 | 44.5% |
| Not at All | 228 | 27.7% |
| Undecided _ | 50 | 6.1% |
| Total Responses | 822 | 100.0% |
| Missing Cases | 220 | |

Q21b. Generally speaking, how influential do you think your comments are on department level evaluations of course instructors?

| Very | 18 | 2.2% |
|-----------------|-----|--------|
| Somewhat | 161 | 19.8% |
| Not Very | 359 | 44.1% |
| Not at All | 215 | 26.4% |
| Undecided | 61 | 7.5% |
| Total Responses | 814 | 100.0% |
| Missing Cases | 228 | |

Q22. Open-ended question

Q23. What is your gender?

| Female | 436 | 43.0% |
|-----------------|------|--------|
| Male | 579 | 57.0% |
| Total Responses | 1015 | 100.0% |
| Missing Cases | 27 | |

Q24. In what year were you born? (converted into actual age)

| 4 | 0.4% |
|------|---|
| 64 | 6.3% |
| .178 | 17.6% |
| 613 | 60.6% |
| 80 | 7.9% |
| 27 | 2.7% |
| 21 | 2.1% |
| 19 | 1.9% |
| 5 | 0.5% |
| 1011 | 100.00% |
| 31 | |
| | 64 178 613 80 27 21 19 5 |

Q25. Were you admitted to SFU on the basis of credentials from:

| High School | 558 | 55.9% |
|----------------------|-----|---------|
| College or Institute | 398 | 39.9% |
| Other | 42 | 4.2% |
| Total Responses | 998 | 100.00% |
| Missing Cases | 44 | |

Q26. What is your Major or Intended Major? (frequencies are not provided as many of the categories were statistically insignificant due to small case sizes)

Q27. How many SFU courses are you enrolled in this semester?

| 1 | 15 | 1.5% |
|-----------------|------|---------|
| 2 | 57 | 5.6% |
| 3 | 224 | 22.0% |
| 4 | 520 | 51.1% |
| 5 | 171 | 16.8% |
| 6 | 13 | 1.3% |
| 7+ | 17 | 1.7% |
| Total Responses | 1017 | 100.00% |
| Missing Cases | 25 | |

Q28. How many course credits had you completed at SFU BEFORE starting this semester?

| 0-15 | 247 | 24.7% |
|-----------------|-----|--------|
| 16-30 | 180 | 18.0% |
| 31-45 | 105 | 10.5% |
| 46-60 | 134 | 13.4% |
| 61-75 | 95 | 9.5% |
| 76-90 | 94 | 9.4% |
| 91-105 | 66 | 6.6% |
| 106-120 | 61 | 6.1% |
| 121+ | 16 | 1.6% |
| Total Responses | 998 | 100.0% |
| Missing Cases | 4.4 | |