

FOR INFORMATION

S.89-34

REPORT
of the
FRASER VALLEY PLANNING
COMMITTEE

September 1989

SIMON FRASER UNIVERSITY

VICE-PRESIDENT, ACADEMIC



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September 18, 1989

Dear Colleague:

I am pleased to present the Report of the Fraser Valley Planning Committee as an internal discussion document for consideration by the Simon Fraser University community. The Committee's proposal represents one of several possible replies to the Government of British Columbia's Access Strategy.

I invite written comments directed to my office by October 15, 1989. On that date, I have asked Dr. R.C. Brown to re-convene the Fraser Valley Planning Committee in order to assist me review the responses in the expectation that a final report can be presented to the Senate Committee on Academic Planning by early November.

Short as it is, this time line is necessary if the reporting obligation to government on Fraser Valley access which SFU shares with the region's colleges is to be met by year end. I thank you in advance for any contribution you might wish to make.

Sincerely,

A handwritten signature in dark ink, appearing to read 'J.W.G. Ivany'.

J.W.G. Ivany
Vice-President,
Academic

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SUMMARY OF RECOMMENDATIONS

A proposal has been developed for a new campus of Simon Fraser University in the Fraser Valley (SFU-FV) with the following recommendations:

1. The proposed campus should open in 1992-93 and grow to 6,000 FTE students in 1999/2000.
2. Simon Fraser University-Fraser Valley should have four components:
 - i. several new Schools offering a full range of degree programs;
 - ii. a teacher education consortium;
 - iii. degree-completion programs in selected disciplines, and
 - iv. new core degree programs in liberal arts and general science.
3. SFU-FV should be built on the south side of the Fraser River between 30 and 60 minutes' drive from SFU-Burnaby Mountain under normal driving conditions.
4. The campus should:
 - i. operate under the same policies and conditions as exist at the Burnaby and Harbour Centre campuses;
 - ii. operate on the trimester system;
 - iii. be designed and built as a full campus providing a wide range of student services and amenities, including student residences;
 - iv. provide high quality academic support for teaching and research.
5. An executive committee be established with membership from SFU-FV and the Fraser Valley Community Colleges to deal with matters of program and articulation.

6. Organizational relationships between SFU-FV and SFU-Burnaby Mountain should be similar to those present at SFU-Harbour Centre, i.e.,
 - i. a senior official should be appointed with the title Vice-President, Fraser Valley, reporting to the Vice-President, Academic;
 - ii. two groups of faculty should be appointed. One group will consist of those who are appointed to a School at SFU-FV. The other group will consist of faculty who are appointed to SFU-Burnaby Mountain departments;
 - iii. administrative and academic services should be provided through counterpart departments at the Burnaby Mountain campus.
7. Admissions standards should be identical to those at the other two campuses.
8. The learning environment at SFU-FV should be designed to utilize the latest in instructional methods and technologies, including especially:
 - i. use of advances in information and educational technology, including electronic library information and video discs;
 - ii. maximum use of computers in instruction;
 - iii. co-operative education;
 - iv. measures to deal comprehensively with student writing skills.
9. Consideration should be given to the possibility that SFU-FV occupy a site contiguous to a new community college campus site and with a public school.
10. A consultative process be implemented which would provide a forum for discussion of the report prior to its consideration by the Senate Committee on Academic Planning.

FORWARD

This Report of the Fraser Valley Planning Committee outlines one response to the recent initiative by the government of British Columbia to increase access to post-secondary education throughout the Province; namely the creation of an SFU campus in the Fraser Valley. Simon Fraser University has been identified by government as an institution with a special role to play in the provision of access in the Fraser Valley region, an area of high population growth and projected increased participation rates in post-secondary education.

It is obvious that Simon Fraser University must respond to the need for increased access to post-secondary education and to the government's request for early action. A vigorous and innovative response will be possible, however, only after all the options have been appraised, their separate merits considered and issues of academic quality and public interest thoughtfully weighed.

This Committee's mandate was to propose a conceptual and operational plan for an SFU Fraser Valley campus, not to argue for or against such a campus or, for that matter, to examine alternatives. To place our proposal in context, however, it will be important to at least identify these alternatives and outline their advantages and disadvantages.

1. **A New University:** In 1963, the need to meet a rapid expansion of demand for university education on the Lower Mainland was met by creating Simon Fraser University. The same option is available to government once again and a totally new university could be established in the Fraser Valley. Its advantages would include the capacity to ensure a wide range of educational programs, the ability to maintain its own faculty and staff, and the prospect of a separate identity. Its disadvantage centres on the absence of any economies of scale that other options offer and more importantly, the benefits which accrue via association with an established university.
2. **Four-Year College:** A *University College* could be established at either Fraser Valley College or Kwantlen College, thus allowing for degree completion opportunities at relatively low cost. This option's shortcomings include the likelihood of generating a conflict with the college's mandate for vocational and technical education, dislocating the college's community orientation, and raising the problem of establishing appropriate academic credibility in the absence of research programs.

3. **Extension:** It would be possible to extend SFU courses and programs into Fraser Valley locations using the instructional model of SFU's Evening Program. However, the success of that model on the Burnaby Mountain campus is largely based on the direct link to an active, existing campus and on integration with daytime programs. It is unlikely that extension programs are a long-term solution in the Fraser Valley. They are a temporary response to be replaced as soon as possible by one of the other options.
4. **Expansion on Burnaby Mountain:** The present five-year plan for expansion at the Burnaby campus will provide space for an additional 1200 FTE students. Theoretically, if the necessary funds were made available, the campus could be expanded to accommodate the equivalent number of students that will be absorbed by SFU-Fraser Valley (SFU-FV). As well, economies of scale would be greater; capital costs probably would be lower; and an expansion of the Burnaby Mountain campus would substantially reduce the complexity of administration, faculty relationships and student program planning which are commonly associated with multi-campus institutions. While obviously an attractive option from many perspectives, there are some important drawbacks, including: the potential loss of the character and ethos of Simon Fraser that would accompany rapid expansion on a single campus; transportation difficulties and environmental problems caused by a large increase in the number of commuting students; lack of sufficient student residences and the poor prospects for adding more; and the government's desire to provide for access in the Fraser Valley itself.

Considering all these options and their limitations, the view of the Committee is that a new Fraser Valley campus for SFU, while certainly not the easiest path upon which to embark, is the most desirable one for achieving the goals of improving access in the Valley, meeting the needs of students and enhancing the academic resources and programs of Simon Fraser University.

SFU FRASER VALLEY

INTRODUCTION

The Fraser Valley Planning Committee has developed a proposal for a new campus of Simon Fraser University in the Fraser Valley (SFU-FV). This new campus, like that at Harbour Centre, will have a distinct mission and identity, complementing the educational opportunities now provided by Simon Fraser and by other post-secondary institutions in the Province of British Columbia.

There are four components to the proposal:

1. The creation of several *new schools*, providing university-level instruction in subject areas central to the emerging needs of the province. These new schools would be unique to Simon Fraser and to the Province of British Columbia, and would extend considerably the educational opportunities available in the province.
2. The creation of a *Teacher Education Consortium* involving school districts and colleges in the Fraser Valley, focussing on professional preparation of teachers, inservice and graduate programs and research on teacher education and school-related issues.
3. The establishment of *two new degree programs*, a Bachelor of Liberal Arts and a Bachelor of General Science. Each would offer a four year,

structured curriculum stressing interdisciplinary work and intellectual community.

4. The provision of third and fourth year courses in selected disciplines and areas of concentration, to complement course offerings at Simon Fraser Burnaby Mountain and to permit *degree completion*. This would be co-ordinated with existing and emerging university transfer programs at the colleges and by first and second year courses at Simon Fraser Fraser Valley, where appropriate and in response to student demand.

PART I. CONTEXTUAL ISSUES: PLANNING & PROJECTIONS

A. Background

In September 1988 the Minister of Advanced Education and Job Training made public the Report of the Provincial Access Committee *Access to Advanced Education and Job Training in British Columbia*.¹ The Report noted that existing participation rates in the Province are substantially lower than the national average and presented a broad set of recommendations, all focussed upon improving accessibility to post secondary education and raising participation rates in colleges, institutes and universities across the Province.

¹ Report of the Provincial Access Committee. *Access to Advanced Education and Job Training in British Columbia*. Ministry of Advanced Education and Job Training, Victoria, B.C. 1988.

According to the Report, degree completion accessibility was to be improved regionally through the development of "university colleges" at selected existing college sites outside the Lower Mainland and southern Vancouver Island and overall participation was to be enhanced by further development of the university transfer programs at the remaining colleges in the system and by providing "predictable funds to allow institutions (the universities) to maintain quality of programs and upgrade space and equipment". The Report also contained a recommendation that there be "further exploration of the potential of a distinctive 'University of the North'."

In March 1989, the Minister announced that a number of the recommendations in the Report were to be implemented. Specifically, it became government policy to:

- raise B.C. participation rates to the national average by 1995, and in order to achieve their objective, funding was approved to add 13,200 new full-time undergraduate students and 1800 new graduate students to the post secondary system.
- facilitate regional access by the creation of three "university colleges" in Kelowna, Kamloops and Nanaimo and by improving university transfer programs elsewhere. The three existing universities were offered funding to assist the designated colleges in developing their third and fourth year programming.

The SFU administration reacted quickly to the announcements by pointing out to government that the Access Committee Report noted that

population in the Lower Fraser Valley was expected to grow more rapidly than any other area of the Province and that therefore the University could contribute best to the access program by focussing its attention on that region.

In April the Minister asked the Presidents of SFU, Douglas College, Kwantlen College and Fraser Valley College to develop a joint proposal no later than December 1989 for the delivery of advanced education and job training in the Valley. In April 1989, recognizing that one of the options available to improve access in the Valley was for SFU to establish a campus there, the Vice-President, Academic established the Fraser Valley Planning Committee (FVPC).

The terms of reference for the Committee included the development of academic and administrative proposals for an "S.F.U. satellite campus"². The Committee's responsibility was to develop a six-year plan which would include:

1. An academic plan for the campus, including recommendations about how it will be phased in;
2. The administrative structure necessary to support the academic plan.

The Committee also was directed to take into account the need for linkages between the main campus and the new campus and the relationships between the new campus, local colleges and the local communities.

² See Appendix 2.

B. The Planning Process

The planning which led up to the presentation of this Report began in May, 1989. During May and June, research was undertaken to develop background information on other multi-campus universities in Canada and the United States. Visits were made by members of the Committee to the University of Toronto (St. Georges, Erindale and Scarborough campuses), the University of Colorado (Boulder and Denver campuses) and Arizona State University (Tempe and West Valley Campuses) where in addition to documentary data, information was gathered on the successes and failures of those institutions and advice was solicited about the best way to design a multi-campus system.

Also in May, consultation was initiated in the Valley through meetings with Presidents and Deans in the local colleges, School District Superintendents, and local planning authorities. At the outset of this planning, it was decided that collaboration with the region's colleges and school districts was essential in order to be sensitive to their concerns, in particular that the unique character and mission of the colleges should not be jeopardized. It seemed essential that the proposal be developed through consultation with groups and individuals in the region to be served. The Committee has been impressed by the enthusiasm and support SFU-FV has received from everyone consulted in the Valley.

A parallel process of consultation was initiated by members of the Committee inside the University Community. Meetings were scheduled with individual members of faculty, Deans' Advisory Committees, several

departments, the Faculty Association, and senior members of the Administration both to inform the community about the project and to solicit ideas and assistance. The internal consultation process was very helpful to the Committee. The many full and frank discussions served to articulate the problems facing the proposed campus and to provide suggestions for new programming which might be developed. Finally, a number of excellent position papers were prepared by academic and administrative support unit directors which provided guidance on systems and services necessary to develop SFU-FV and to link it to the Burnaby campus.

In May, Dr. John Pierce of SFU's Geography Department was appointed as a consultant to work with a "Demographic Task Force" which included as members the Analytical Studies officers from SFU, Kwantlen College, Fraser Valley College and Douglas College. The purpose of that study was to provide a synopsis of population forecasts and participation rates in higher education for the Lower Mainland of B.C. with special attention paid to the growth performance of municipalities of the Fraser Valley.³ The report of the "Task Force" was received by the Committee in late June.⁴ The Demographic Task Force's conclusion is that "demands for educational services are expected to expand greatly in the Fraser Valley as it captures a larger share of younger age classes of the population and participation levels 'converge' with respect to Vancouver and its environs."

³ In this report the Fraser Valley area (FV) includes the following school districts: Delta, Surrey, Langley, Abbotsford, Agassiz-Harrison, Chilliwack, Maple Ridge, and Mission. The area definition was based on the assumption that the SFU-Fraser Valley (SFU-FV) campus would be located south of the Fraser River and that a bridge would be built across the River near Haney/Fort Langley sometime in the 1990's.

⁴ J.T.Pierce, "Demographic Survey of the Lower Mainland of British Columbia," A Report Prepared For The Demographic Task Force; SFU Office of Analytical Studies, June 1989.

C. Enrollment Projections

The prospective enrollment at SFU-FV is a very important starting point for our planning outline. The most important factor in initiating this planning effort was the perceived need to serve a growing student population in the Lower Fraser Valley. Thus, we begin with an analysis of the prospective size of a Fraser Valley campus.

The Committee's projections of SFU-FV enrollment are based on the Report by John Pierce and further analysis by Walter Wattamaniuk, Director of Analytical Studies at SFU. The projections indicate that the targets of 2500 FTE students in 1994/95 and 5000 FTE students in 1999/2000 specified in the Committee's terms of reference can be met, if the Fraser Valley campus:

- offers a four year academic program;
- is successful in increasing university participation rates in the Fraser Valley to approximately the Burnaby level by 1999, and:
- is able to attract students from outside the Fraser Valley area to study in the unique programs which will be offered at the campus.

In addition to the above three points, it is assumed that growth at SFU-Burnaby Mountain will be held to the presently planned 1200 FTE undergraduate students in the period 1989 through 1995. A summary of the enrollment projections is shown below:⁵

⁵ A full discussion of the methodology used to generate these numbers is included as Appendix 3.

	Grade 12 and College Transfer	Over-24	Total
1992	586	1334	1920
1993	1113	1368	2481
1994	1596	1363	2959
1995	2003	1377	3380
1996	2271	1391	3662
1997	2595	1404	3999
1998	2935	1418	4353
1999	3371	1430	4801

PART II. PROGRAMS AND STRUCTURES

A. Campus Models

The Committee has spent a substantial amount of its time considering the relationships between SFU-FV and the rest of the University. This topic has also been prominent in discussions of SFU-FV within the University and was emphasized in the field visits made by members of the Committee to other campuses. While the precise nature of SFU-FV's relationship to the University would be determined in the course of its operation, it is important to recommend several essential features of the organizational and operational parameters of SFU-FV at the outset because they transcend any particular program structure that SFU-FV would develop.

Based on the interviews conducted on other campuses, the Committee concluded that multi-campus universities are most successful when:

1. each campus has some programming which is unique and which has strong research and graduate programs in addition to undergraduate programs;
2. programs are not simply an extension of general programming from the "main" campus;
3. all campuses have the same standards and expectations for faculty and students;
4. all components (campuses) are perceived to be equal partners in the multi-campus consortium;
5. each campus has a full range of student, staff and faculty facilities, including student residences.

The interviews at other campuses also showed clearly that in cases where a satellite campus was limited strictly to the extension of programs which were also offered on the 'main' campus, the satellite unit inevitably was characterized as being inferior. This was especially true in cases where different standards of admission for students were employed and faculty without active research programs were transferred from the 'main' campus to teach at the newer satellite campus.

In order to avoid these problems SFU-FV must be an integral part of Simon Fraser University whose faculty and staff work under the same policies

and conditions as in the rest of the University and whose governance structures are connected to those of the rest of the University.

This will mean, for example, that:

1. SFU-FV not have its own Senate or Board of Governors, although it should have its own convocation ceremonies;
2. SFU-FV operate on the trimester system and its programs be related to those of SFU-Burnaby;
3. The campus of SFU-FV be designed and built as a full campus providing a wide range of student services and amenities, including student residences and recreational facilities;
4. SFU-FV also provide high quality academic support for teaching and research.

These features are essential if SFU-FV is to appeal to students, faculty, and staff as a place to study and work and it must do this if it is to be an operation of quality.

Organizationally, SFU-Harbour Centre provides an attractive model, although the greater size and scope of SFU-FV means that its organizational relationships will have to include more independence for many administrative and academic functions. The senior official at SFU-FV should be given the title of Vice-President, Fraser Valley with a reporting relationship to the Vice-

President, Academic. This Vice-President will have administrative responsibility for all aspects of the SFU-FV campus and will have whatever academic responsibility is required to deliver the programs and other aspects of the academic operation of the campus. With respect to programs which are operated only at SFU-FV, the Vice-President will function as a Faculty Dean.

Faculty members who work at SFU-FV will fall into two groups, one group consisting of those who are appointed to a School at SFU-FV. We envisage that SFU-FV Schools will be staffed entirely by faculty appointed to SFU-FV and will be headed by Directors who will report to the Vice-President, Fraser Valley in his/her role as Faculty Dean. The other group consists of faculty who are appointed to regular SFU departments. These faculty will have a dual reporting relationship - to their Department Chair and Dean at SFU with respect to performance evaluation and other contractual matters and to the Vice-President, Fraser Valley with respect to their assigned work in SFU-FV teaching programs. While this arrangement may appear cumbersome, we believe it is necessary to create a strong relationship between the main SFU campus and SFU-FV. This will contribute to hiring success at a time when a shortage of good applicants for faculty positions is expected as universities across Canada begin to replace retiring faculty hired during the 1960's expansion.

Some courses may be offered on an *extension* basis by faculty provided from the Burnaby Mountain campus or by sessional instructors, with administrative and financial arrangements similar to those in effect in other extension programs, such as Harbour Centre. Care should be taken to ensure that only a limited number of courses at SFU-FV could be offered on this basis

in order to avoid the problems associated with excessive reliance on the extension model.

Administrative and academic services will be provided through counterpart departments at the Burnaby Mountain campus. In most cases the head of the operation at SFU-FV should report to the head of the appropriate SFU department. For example, the person in charge of the library at SFU-FV should have a direct reporting relationship to the University Librarian. Particular aspects of some services are discussed below in the Services section.

B. Admission Policies

It is imperative that Fraser Valley not become a second tier of Simon Fraser University. For this reason, admissions standards will be identical at all three campuses of Simon Fraser University, Burnaby Mountain, Harbour Centre and Fraser Valley. Demand at each site is likely to be equally pressing, as excellent faculty will be attracted to the Fraser Valley campus by the combination of specialized offerings, graduate program opportunities and research facilities. Students will be encouraged to pursue their studies at a single campus because of the different missions and curricula offered at each.

C. Academic Mission and Orientation

The Fraser Valley campus will have a unique mission and structure of course offerings consisting of four components:

- (1) the creation of several new schools, providing university level instruction to meet emerging needs of the Province of British Columbia;
- (2) the creation of a Teacher Education Consortium, with schools and colleges in the Fraser Valley, providing professional teacher preparation, inservice and graduate programs, and research on teacher education and school-related issues;
- (3) the provision of degree completion programming in selected disciplines and areas of concentration; and
- (4) the establishment of two new degree programs, a Bachelor of Liberal Studies and a Bachelor of General Science, each offering a structured curriculum stressing interdisciplinary work and intellectual community.

1. The Creation of New Schools:

Such schools would have a thematic focus on a specific topic or problem, drawing together expertise from several disciplines and establishing strong relationships with government, industry and members of the community.

A number of proposals for such schools have been presented to the planning committee, including the following: (a) Environmental Studies; (b) Health Services; (c) Aerospace Engineering; (d) Small Business Administration and Community Economic Development; (e) Applied Social Policy; (f) Journalism Education; (g) Information Systems; (h) Earth Sciences.

The committee has neither developed nor evaluated these proposals, but several can be described briefly to give a picture of what is intended by this initiative.

(a) *School of Environmental Studies :*

A recent comment by a faculty member makes an eloquent statement about the need for a School of Environmental Studies. He says,

There can be little doubt that the growing concern about the deleterious effects of human activity on the environment will become one of the most important scientific and social issues of the new century. Already we see signs that the persistent voices of environmental scientists slowly are being recognized and that a new political will to address environmental problems is beginning to emerge here in Canada and elsewhere. The expression of international concern is a particularly significant development because many of the environmental problems we face are world problems requiring global solutions. ... The University must play a central part in the effort to develop and sustain among its graduates a heightened awareness of the critical nature of these environmental problems.⁶

There are programs or faculties of Environmental Studies at York and Waterloo, but no similar initiative in the Western Provinces.

Some planning has been done at Simon Fraser by the Departments of Geography, Biological Sciences, Chemistry and Natural Resource Management. As well the Department of Philosophy and the Institute for the Humanities at Simon Fraser have both done work in the area of environmental ethics, as has the Department of Economics in the design of environmental policies.

⁶ Ted Hicken to Roger Hayter, 6 June 1989.

(b) *School of Health Services :*

The demand for a wide range of health services is growing at an even faster rate than the population, and there are well documented problems with providing adequate training for health services personnel and administrators. The proposed School of Health Services will complement the professional programs at the colleges and universities in the province. In particular, it will draw upon expertise at Simon Fraser in Kinesiology and Gerontology, and upon the experience of the Faculties of Business and Continuing Studies with special programs designed for health service administrators.

(c) *School of Aerospace Engineering :*

None of the British Columbia universities has programs in Aeronautical or Aerospace Engineering, yet industries that depend upon these disciplines are increasingly important in the province and the region. This situation provides an excellent opportunity for a partnership of Simon Fraser's Department of Physics and its School of Engineering with a number of private companies now providing equipment and services for aerospace development.

Each of the approved schools might reasonably be expected to offer undergraduate courses in conjunction with the Burnaby Mountain campus; specialized courses at Fraser Valley; graduate courses; and a sustained program of world class research capable of attracting students from across the province and throughout Western Canada.

2. The Creation of a Teacher Education Consortium:

Two developments will require an expansion by the Faculty of Education and the Fraser Valley provides a desirable setting for this to occur. First, it is anticipated that the demand for new teachers will increase rapidly and, second, new programs will be required in conjunction with the implementation of the curriculum triggered by the recent Royal Commission on Education. To meet these needs, a teacher education consortium is proposed, involving the school districts and colleges in the Fraser Valley and the Faculty of Education and appropriate Arts and Science departments at Simon Fraser.

The teacher education consortium builds upon expertise that the Faculty of Education has developed with several similar programs, including the Alaska Highway Consortium on Teacher Education and the Surrey/SFU Secondary program. Unlike these initiatives however, the Fraser Valley teacher education consortium will include a research and development component.

The consortium will develop and implement new programs across the entire continuum from the academic and professional preparation of teachers (and possibly paraprofessionals), through inservice and graduate programs and it will include research on teacher education and school related issues.

Anticipated features of the consortium would include:

- (a) a joint governance structure composed of representatives from the school districts, colleges and Simon Fraser University;
- (b) clustering of student teachers in selected schools, which would function as teacher education "labs";
- (c) new opportunities for training and support of sponsor teachers; and
- (d) the creation of a 'field centre' for the implementation of new curricula and in-service programming. Research and development initiatives would maximize the impact of investment in educational research for the benefit of consortium members, and facilitate the establishment of a research base which would serve as an integral part of educational analysis and decision making.

3. Degree Completion in Selected Undergraduate Disciplines:

For first and second year courses, Simon Fraser would draw extensively upon the existing and emerging university transfer programs at the colleges. Simon Fraser would complement these offerings and respond to student demand where it was warranted by also providing instruction at the lower levels.

Courses would be offered at the third and fourth year level in selected disciplines and areas of concentration. Such courses would permit coordination with university transfer programs and degree completion at Fraser Valley.

4. The Establishment of Two New Degree Programs:

The proposed programs are a Bachelor of Liberal Studies and a Bachelor of General Science. Each would offer a four year, structured curriculum stressing interdisciplinary work and intellectual community.

There are several rationales for these programs, each of which is unique to British Columbia. First, they are well suited to a semi-urban university campus in which it is possible to foster a strong sense of community. Second, as interdisciplinary programs each is intended to be responsive to the new global environment, which requires people to be adaptable to changes in the economy, job profiles, and technologies. Third, these are programs that can be mounted with a small number of faculty and a limited number of electives. Finally, and perhaps most important, these programs add an important intellectual dimension to the university curriculum, depending as they do on the integration of disciplines and development of capacities for critical thought.

A third degree program might be added at some future point to the list--namely, a Bachelor of Technology. This would give students in selected college technology programs a degree program into which they could transfer at least some of their technology courses. Again, the emphasis in this program would be on the provision of a structured curriculum, with a limited number of electives, drawing upon a variety of disciplines and areas of expertise at Simon Fraser University.

D. Continuing Studies

Continuing education programs will be an important part of the academic activities at SFU-FV. These programs will centre on four areas:

1. **Support for Schools.** Continuing Studies will support the projected new areas of academic development via professional development courses, seminars and conferences and by assisting faculty in building networks in the specialized communities being served by these new areas (e.g. environmental groups, planners, health workers, engineers).
2. **Professional Development Programs -** Develop and administer a series of professional development programs which build on the academic expertise of the University, reflect the interests and needs of the Fraser Valley community and complement the continuing education programs of the colleges.
3. **Part-Time Study -** Coordinate and support efforts by SFU-FV to supply courses and programs for part-time and adult students and, when necessary, act as the advocate within the institution for the needs and interests of these and other groups of non-traditional students.
4. **Conference Services and Marketing -** Administer conferences, seminars and symposia for the University and the community, and provide coordination and support for general marketing and promotion needs for the Fraser Valley campus.

E. Instructional Features

The learning environment at SFU-FV should be designed to utilize the latest in instructional methods and technologies. We should take advantage of the opportunity to build in capabilities and features which are beyond the ability of a 25-year old campus to make full use of because of physical and human constraints. Our preliminary thinking has identified the following features which should be considered for SFU-FV:

1. Use of advances in information and educational technology including electronic library information and videodisc.
2. Maximum use of computers in instruction.
3. Co-operative education available in all programs, although not compulsory across SFU-FV.
4. Measures to deal comprehensively with student writing skills.

PART III. INFRASTRUCTURE & SERVICES

A. Services

The Committee received many useful submissions from academic and administrative service departments. These offered advice on how best to provide services at a smaller remote campus while still taking advantage of the

economies of scale which are available through combining the provision of services at all SFU locations. More detailed consideration of how to manage this will be required in the future but the following summary reflecting input from the Library, Academic Advice Centre, Registrar's Office and the Instructional Media Centre will give some indication of the issues and problems involved.

1. *Library:* The establishment and maintenance of a core book collection at the Fraser Valley site will undoubtedly constitute one of the largest initial as well as on-going costs that the university will have to undertake. These costs will be unavoidable if the Fraser Valley campus is to develop into a quality academic institution and attain an equal partnership with the other Simon Fraser Campuses.

Some economies of scale will be achievable if the library is able to institute electronic catalogue and search systems across all three campuses (Burnaby, Harbour Centre and Fraser Valley). This is because the substantial capital costs of these systems can be spread across a larger number of students at the three sites. The computer systems will additionally allow some savings by helping to reduce the need for duplication of library materials in a multi-campus structure.

2. *Academic Advice:* While some minor economies of scale might be expected from expanding Academic Advice over a greater number of students, there will ultimately be a significant net increase in costs for this service. Operating costs can also be expected to rise not simply because of a larger

user base but as a result of advising requirements associated with the increase in program opportunities.

3. *Registrar*: Significant expenditures associated with establishing a registration system at the Fraser Valley site are unavoidable. Two issues however deserve further investigation as a means of mitigating these costs to a limited degree:

- (a) A telephone registration system might be a justifiable expense if it was implemented across all three campuses because the larger student base would help to lower the costs of delivery per user. A main advantage would also be in avoiding some of the costs associated with establishing a full registration infrastructure at the Fraser Valley campus.

- (b) The Registrar's Office is currently near capacity. Further demands on the system may entail afternoon/evening shifts because additions to the Burnaby facility's physical plant would be difficult. Given a fully interactive registration system, some functions could be moved to the Fraser Valley facility where additions to physical plant might be made more easily.

4. *Instructional Media Centre*: Instructional media costs will represent a significant front end capital expenditure. This is because most of the equipment is site specific and must be made available even though initial usage can be expected to fall short of maximum capacity utilization. While some capital expenditures can be limited by omitting photographic, audio,

technical and TV services from the Fraser Valley site a note of caution is in order because:

(a) the presence of on site faculty, graduate students and flag-ship programs often place significant demands on these services and;

(b) facilities and equipment to provide these services are most economically installed in the construction phase.

5. *Other Services*: It might also be useful to touch on the provision of various *administrative services* at SFU-FV. The basic model for such services as Finance, Personnel, and Facilities Management should be to provide a high quality of service at SFU-FV using as much contribution from the Burnaby Mountain campus as is consistent with the promotion of SFU-FV as a campus in its own right. In the case of these and similar services, this may mean operating only small branch operations at SFU-FV. In this way the economies of scale which are associated with the provision of these administrative services can more readily be realized.

The case of *student services* is somewhat different. While there may be economies of scale in these areas as well, their autonomy at SFU-FV will be quite important to their innovation and flexibility in dealing with local needs and success here would in turn be quite influential in making the campus an attractive place for students. While liaison with the Burnaby Mountain campus will be important, SFU-FV should probably have its own Director of Student Services, possibly with a mandate which includes additional functions.

Had this report been written ten or even five years ago the question of *computing facilities* would have been problematic. Of particular importance would have been whether or not SFU-FV should have its own mainframe computer. Now, with advances in computer and communications technology, it can be recommended that computing services at SFU-FV be limited to personal and mini-computers with appropriate local and inter-campus communication networking. Earlier in this section we have argued for a maximum use of computing in instruction and the organization of academic computing should be carried out so that this is encouraged.

B. Location

Although the Committee's terms of reference do not specifically include responsibility for selecting a location for SFU-FV, this report does reflect certain thinking about location. Thus, it is important for readers of the report to know the Committee's views on the characteristics of a desirable location.

We believe that SFU-FV should be located somewhere on the south side of the Fraser River between 30 and 60 minutes' drive from Burnaby Mountain under normal driving conditions and adjacent to Highway 1. The south side location is required by population location and the range of distance reflects the need to be far enough away from Burnaby Mountain to give SFU-FV an independent existence but not so far as to be deemed inaccessible. (Locations more than 60 minutes' drive from Burnaby Mountain are also ruled out by population location.)

The report by John Pierce, "Participation and Locational Analysis of the Fraser Valley"⁷, reviewed a number of possible sites and others have since been brought to the Committee's attention. It is not our role to choose between these alternatives, but we would like to emphasize that the location for SFU-FV must be on a large, quiet, attractive, accessible piece of land that offers an attractive working environment and does not constrain the future development of the campus. Site analysis and choice should be an early priority if a decision to proceed is made.

C. Facilities

Similarly, although again it was not an explicit part of our terms of reference, we would like to offer advice on the basic design of facilities for an SFU-FV campus. We believe strongly that SFU-FV should be a complete campus able to provide the same services and learning and working environments as SFU's main campus. This means that the SFU-FV campus should include classrooms, laboratories for teaching and research, faculty and staff offices, library and study space, cafeterias, residences, recreational facilities including a gymnasium, and social space for students, faculty, and staff.

It will be easiest to obtain funding for many of these buildings in the first phase of campus construction and while some of the construction will be phased over the first ten years, we would urge that efforts be made to include a

⁷ John Pierce, "Participation and Locational Analysis of the Fraser Valley", unpub. report prepared for the Fraser Valley Planning Committee, June 1989.

good portion of the "non-academic" space in the first phase, even at the risk of some over-building. We would also suggest that consideration be given to locating a conference centre at SFU-FV. There is a need for a university facility of this type in the eastern Lower Mainland and its provision would be a great assistance in carrying out the proposed conference mandate of Continuing Studies.

Serious consideration should also be given to the possibility that SFU-FV occupy a site contiguous to a new community college campus and with a public school. The advantages of sharing a site with a school, which are associated with the proposed Teacher Education Consortium, involve the opportunity to have a nearby facility where liaison between Education faculty and an operating school facility can be used to facilitate teaching and research. The advantages of sharing a site with a community college campus include realizing economies in the provision of student services, library and recreational facilities, and in achieving the best degree of integration with college programs. In making these suggestions, the Committee is aware that planning would be more complex and that delays could result.

Another useful arrangement to share the SFU-FV campus site could be made with laboratories or other research facilities from government or industry which were attracted by the opportunity to locate near one of the Schools. While this would not be likely in the first phase of SFU-FV's operation, the desirability of this should be kept in mind when the site is being chosen and the campus buildings placed on it.

D. External Relationships

1. *Colleges:* During its planning the Committee Chairman took advantage of several opportunities for discussions with Presidents and other officials from the colleges. It was apparent that there was a great deal of support for the Simon Fraser initiative. Several concerns were raised by college officials, however, particularly in conjunction with the provision of first and second year course offerings.

There are a number of positive ways that Simon Fraser can respond to these concerns.

1. First, of course, it is essential to maintain the Committee of Presidents as a forum for the exchange of information.
2. Second, there should be a second level of executive planning between Simon Fraser and the colleges, to deal with matters specific to various programs. This committee should seek to maximize cooperation and articulation among the various post secondary institutions.
3. Third, Simon Fraser should participate in the development of new university transfer programs at the colleges where appropriate and requested.
4. Finally, it should be noted that there are significant opportunities for cooperation between the academic programs offered by SFU-FV and

the career programs offered by the colleges. This would enable the colleges to make use of the opportunity to develop their career programs, and increase the relevant enrolments further.

In other words, following through on the initiatives for cooperation established over the summer, and with careful monitoring of student demand, it should be possible to ensure that the programs offered by Simon Fraser and the colleges together provide new opportunities for access and learning in British Columbia.

2. *Trinity Western University*: It is often forgotten that there is a provincially-chartered private university in Langley which already offers degree programs in Arts and Science and, with SFU help, Education. TWU's current enrollment is about 1,000 students with about 1/3 from Surrey and Langley, 1/3 from other parts of the Valley, and 1/3 from elsewhere.⁸ We should be sensitive to the position and interests of Trinity Western University by keeping them informed of our planning.
3. *School Districts*: The Faculty of Education already has been involved in some cooperative projects with Fraser Valley school districts. Districts contacted during the planning process were most enthusiastic and eager to participate in SFU-FV. School districts should continue to be informed and have opportunities to participate in appropriate aspects of future SFU-FV planning.

⁸ TWU enrollments were not included in our transition rates. Including them would increase these rates, but we do not think it would make much difference to our projections.

4. *Communities:* Officials in many Fraser Valley communities were contacted during the Committee's planning process and all expressed enthusiastic support for the SFU-FV initiative. Community access to SFU-FV's intellectual, cultural, recreational and athletic resources is attractive locally and the possibility that the University's property holdings might be sufficiently large to conserve some land as a heritage preserve also has appeal. Employment prospects and SFU-FV's economic multiplier effect were noted as additional benefits.

Accordingly, when a site is chosen, SFU should ensure that local government administrators, politicians and citizen groups in both the host and surrounding municipalities are fully informed about the reasons for the decision to build at a particular location. A subsequent task of considerable importance will be to establish the relationship between SFU-FV and its local community in areas of planning, permits and the provision of services.

PART IV. BUDGET

Although the Committee's terms of reference do not include specification of budget estimates, it has occurred to us that there will be considerable interest in our best ideas of the approximate cost of operating SFU-FV over the eight years (1992-93 to 1999-2000) of our planning horizon. We should emphasize that these are rough preliminary estimates that will certainly have to be refined and revised as program planning proceeds.

For the purposes of this section, we use the fiscal year FTE enrollment and faculty staffing levels shown below. The operating budget estimates, which are in 1989 dollars, begin one year before SFU-FV opens. We have assumed a September, 1992 opening - this would only be possible if the decision to proceed were made by March, 1990 and if the planning and construction phase proceeded on a fast track.

Academic Year	FTE Enrollment			Faculty	Recurring Operating Cost	Start Up Cost	Total Cost
	<u>FV Area</u>	<u>Outside</u>	<u>Total</u>				
1991-92	--	--	--	20	--	5	\$5 million
1992-93	1900	100	2000	130	17	8	25
1993-94	2500	300	2800	170	23	9	32
1994-95	2900	300	3200	200	27	10	37
1995-96	3400	500	3900	220	41	9	32
1996-97	3700	800	4500	240	37	6	43
1997-98	4000	1000	5000	260	42	3	45
1998-99	4400	1100	5500	280	46	1	47
1999-2000	4800	1200	6000	300	50	-	50

These estimates are based on the following assumptions.

1. The projected FTE enrollment is the sum of the Fraser Valley area enrollment from the Planning section of the report plus an estimate of students from outside the Fraser Valley area who would be attracted to SFU-FV by its unique programs.
2. SFU-FV will receive government funding of \$6500 per FTE and collect student fees of \$1800.* The operating budget estimates for the final year (1999-2000) are thus \$8300 times 6000 FTE students.

* Standard basic tuition fee of \$52/hour adjusted to \$60 to take account of differential and co-op fees.

3. The student/faculty ratio in 1999-2000 will be 20:1, slightly lower than SFU's at present. In earlier years, for the same reasons mentioned above, the student/faculty ratio will be lower, starting at 15.4:1 in 1992-93.
4. Faculty salaries and other instructional staff costs would account for between 40 and 45 percent of the operating budget by 1999-2000. The remainder would be needed for staff salaries and operating expenses.

PART V. CONSULTATION AND FURTHER PLANNING

In closing our report, we address two important issues of process during the next months. The discussions which Committee members had within SFU showed that there is great interest in the possibility of new campus in the Fraser Valley. However, the pressures which a development of this magnitude would place on a University already experiencing severe growth pressures means that there is great concern surrounding this initiative. Much of this concern involves the process which will be followed within the University in making the decision to proceed, or not, with SFU-FV and with any subsequent and more detailed planning process.

The Committee recommends that the following consultative process be followed during the next semester.

1. Early distribution of the Committee's report to all interested parties. This should be accompanied by a specification of the decision process and timing.

2. Provision of a series of forums for discussion of the report prior to providing reactions to the Vice-President, Academic.
3. Consideration of the report and the Vice-President, Academic's recommendations by the Senate Committee on Academic Planning.
4. Concurrent discussions and consultation with colleges and community constituencies will be undertaken.

Our second recommendation concerns the subsequent planning effort. Once a decision is made to proceed, a number of important tasks will have to be carried out simultaneously. These will include the selection of programs, the choice of location and design of the facilities, program planning, planning for academic and administrative services, and liaison within and outside the university. A number of these tasks will have to be carried out by committees and the whole effort should be supervised by the person who will hold the position of Vice-President, Fraser Valley. We strongly recommend that this appointment be made at the same time as a decision to proceed with SFU-FV.

Finally, we share with one of our faculty colleagues the view that with wisdom and careful planning we can build on the strengths of the Burnaby and Harbour Centre locations, and develop a campus in the Fraser Valley which will help SFU to become a truly great North American University. To accomplish this objective we urge a full and frank discussion of this proposal throughout the University community.

APPENDIX 1**SIMON FRASER UNIVERSITY
FRASER VALLEY PLANNING COMMITTEE****Members**

Dr. R. C. Brown, Dean, Faculty of Arts, Chairman

Dr. L. Meredith, Associate Professor, Faculty of Business
Administration

Dr. J. Munro, Professor, Department of Economics

Dr. C. Oehlschlager, Chair, Department of Chemistry

Dr. L. Salter, Chair, Department of Communication

Dr. S. Shapson, Associate Dean, Faculty of Education

Ex-Officio Members

Dr. S. Duguid, Continuing Studies

Mr. G. Macdonald, Special Assistant to the President

APPENDIX 2

SIMON FRASER UNIVERSITY

MEMORANDUM

TO: Dr. R.C. Brown, Chair

FROM: J.W.G. Ivany,
Vice President, AcademicRE: SFU Fraser Valley Planning
Committee Terms of Reference

DATE: 28 April 1989

The Fraser Valley Planning Committee has been established by the Academic Vice President and charged with the responsibility of developing academic and administrative proposals for an SFU satellite campus in the Fraser Valley. The Committee will submit a written report to the Academic Vice President who will then place before the Senate Committee on Academic Planning those programme proposals which he determines should be considered. The Committee's responsibility is to develop a six-year plan which will include:

1. an academic plan for the campus, including recommendations about how it will be phased into place;
2. the administrative infrastructure necessary to support the academic plan.

When carrying out these responsibilities, the Fraser Valley Planning Committee should take into account the need for linkages between the main campus and the new satellite campus; and the relationships between the satellite campus, local colleges and the local communities.

The planning process will be carried out with the following assumptions and constraints:

1. The satellite campus will be designed to accommodate 2,500 full-time equivalent undergraduate students by the end of the 1994/95 academic year, with the possibility of 5,000 FTE by the year 2000.
2. Third and fourth year undergraduate courses from existing SFU Schools, Departments and programs will be offered, but competition with university transfer programs at the community colleges will be minimized.
3. Proposals for new academic programs which will be unique to the satellite campus will be considered.
4. A Faculty of Education consortium in the Fraser Valley should emerge as part of the proposal.
5. The satellite campus is to be considered an extension of the Burnaby campus rather than separate.
6. The Committee will not be concerned with capital costs, but will make recommendations concerning space requirements as they relate to programming initiatives.
7. The Report will be submitted to the Academic Vice President no later than September 8, 1989.

J.W.G. Ivany,
Academic Vice President

c. William G. Saywell, President
Vice Presidents
Deans

APPENDIX 3**1. Population Growth**

According to the Central Bureau of Statistics 1986-2006 population forecast, the total population of the Fraser Valley will increase from 532,000 in 1986 to 717,000 in 1996 and 897,000 in 2006 or 69 percent over 20 years.¹

Growth in the population age cohorts of particular interest in forecasting university enrollment will be much lower, as shown below.

	<u>18-24</u>	<u>25-34</u>
1986	54,000	90,000
1996	60,000	104,000
2006	81,000	109,000
Increase, 1986-2006	50%	21%

It should be noted that the lower growth rates in these age cohorts are not peculiar to the Fraser Valley area; they will occur across the province.

2. Participation in Post-Secondary Education

Enrollment projections for a Fraser Valley campus depend both on the size of the available population age cohorts of interest, the level of participation in post-secondary education, and the distribution of enrollment among available institutions.

¹ It should probably be pointed out that these forecasts assume much lower rates of net migration than the Lower Mainland has experienced in the last three years. Thus, some would argue that they are excessively conservative and that population will grow more rapidly over the next 20 years. However, it is probably a good idea to have an influence which may bias our enrollment projections downwards since many of the other assumptions may have the opposite effect.

At the present time (1987 data), the transition rates for Fraser Valley Grade 12 enrollees attending university² and colleges show the following means and ranges:

	<u>Mean</u>	<u>Range</u>
University	8.6 percent	2.3 - 14.2 percent
College	13.3 percent	10.9 - 22.5 percent

Thus, 21.9 percent of students enrolled in Grade 12 in 1987 in Fraser Valley school districts went on to attend university or college academic programs in 1987. In the inner part of the Lower Mainland³ the transition rates were much higher, averaging 15.9 percent for university and 11.1 percent for college for a total of 27 percent.⁴ Our enrollment projections assume that the Fraser Valley transition rate for university increases steadily through the 1990's so that by 1999 the average university transition rate for the Fraser Valley area will be 16.4 percent. This will put it in the vicinity of the 1987 Burnaby rate (15.5 percent) and the average inner Lower Mainland rate of 15.9 percent. The college transition rates are assumed to remain at their 1987 level of 13.3 percent; this compares to 11.1 percent for the inner Lower Mainland in 1987. These assumptions give a total transition rate of around 30 percent, near the 1987 rate for the inner Lower Mainland. Whether these rather substantial increases in area participation in post-secondary education will occur will depend on many factors, among them the degree to which the Fraser Valley area acquires a similar socio-economic mix to the inner Lower Mainland. In the

² Note that none of these statistics include Trinity Western University.

³ Vancouver, Burnaby, Richmond, New Westminster, Coquitlam, North Vancouver, and West Vancouver.

⁴ The Lower Mainland's highest rates for college transition are in Agassiz-Harrison (22.5 percent) and Chilliwack (18.6 percent). In other Fraser Valley districts the transition rates are closer to the inner Lower Mainland level.

1986 census, income levels and average years of schooling, important variables in determining the level of post-secondary educational participation, were both lower in the Fraser Valley than in the Lower Mainland.

3. Enrollment Projections

The next stage is to convert the student numbers projected using the transition rate methodology into enrollment projections for SFU-FV. There are several steps here. We will explain them by presenting the actual forecast data.

a. *Grade 12 Direct to University*

In 1992, 801 Fraser Valley students are projected to enroll in university directly from Grade 12. In our projections, 50 percent of them (401) enroll in SFU-FV and the other 50 percent (400) attend other universities. The other universities continue to attract 400 high school graduates per year as first year students throughout the planning period. We are assuming that the location and quality of SFU-FV will enable it to compete strongly for Fraser Valley high school graduates. By 1999, SFU-FV's share of high school graduates proceeding to university will be 74 percent, slightly less than SFU's 1987 share of Coquitlam high school graduates.

b. *Grade 12 Direct to College Academic Programs*

As noted above, the transition rate to academic programs in colleges will remain constant at 13.3 percent, 2.1 percent higher than in the inner Lower Mainland. Rising population will increase first year college enrollments from 949 in 1992 to 1,227 in 1999, however. It is projected that 20 percent of these students will transfer to university after one year and another 20 percent after two years. SFU-FV will obtain 50 percent of these students in 1992 with increases to 60

percent by 1999. This will total 184 students in both groups in 1992 rising to 275 in 1999. Other universities will obtain a steady transfer enrollment of 184 students per year.

c. Survival Rates at SFU-FV

For these two groups of students (direct from Grade 12 and college transfer) current SFU experience with respect to continued enrollment (the "survival rate") has been applied.

d. Participation of Older Students

Forecasting the participation of students in the over-24 age cohorts is difficult. The university participation rates in the inner Lower Mainland for the 25-34 and over-35 age cohorts are 3.732 and 0.44 percent, respectively, on an FTE basis. One-half these rates (1.866 and 0.22, respectively) was applied to the population projected for these age cohorts over the study period to give a projected enrollment for the over-24 age group. All these are assumed to be attending SFU-FV. Since this is an aggregate approach, it is not possible to distribute this group by program year.

e. Converting Head-Count Enrollment to FTE Enrollment

While the over-24 age group enrollment is projected in FTE terms, the Grade 12 group is a head-count measure. We have taken this group as enrolling in an average of 30 semester-hours of courses per year. This is slightly higher than the current SFU average for this group (about 24 hours) - using 24 hours instead of 30 hours would reduce FTE enrollments by 10 to 15 percent, with the higher reduction applying in the later years.

f. *Important Features of Enrollment Projections*

- population growth in the age cohorts of greatest interest (18-24 and 24-35) will accelerate after 2000.
- transition and participation rates are very important; our methodology predicts that current tendencies to increase participation will be sustained and that SFU-FV will be successful in competing with other universities.
- SFU-FV would only have about 50 percent of its projected enrollment if it was limited to third and fourth year students only.

APPENDIX 4List of Submissions Considered by the Fraser Valley Planning Committee

CACUSS Position Paper on Student Services, Bill Stewart, Director of Student Services.

Comments on the Fraser Valley Satellite Campus, David Boal, Department of Physics, 7 July 1989.

Considerations for the Planning of a Fraser Valley Campus, Ron Heath, Registrar, 26 July 1989.

Continuing Education at SFU-Fraser Valley, Jo Lynne Hoegg, Dean of Continuing Studies.

Demographic Survey of the Lower Mainland and British Columbia: A Report Prepared for the Demographic Task Force, John Pierce, Department of Geography, June 1989.

Enrollment Increase Costs, SFU and Fraser Valley Campuses, Walter Griba, Director of IMC, 12 July 1989.

Fraser Valley Campus, memo from Jon Driver, Department of Archaeology, 24 July 1989.

Fraser Valley Campus, J. E. Rahe, Department of Biological Sciences, 2 August 1989.

Fraser Valley Campus, Stan Shapiro, Dean of Business, 20 June 1989.

Fraser Valley Campus Programs, Bryan Beirne, Professor Emeritus, Department of Biological Sciences, July 5, 1989.

Fraser Valley Campus Writing Curriculum, Rick Coe, Department of English, 26 July 1989.

Fraser Valley Developments, Lalit Srivastava, Chair, Biological Sciences,
21 June 1989.

Fraser Valley Library Cost Estimates, Charles MacDonald, SFU Library.

Fraser Valley Planning, memo from Larry Pinfield, Faculty of Business
Administration, 10 July 1989.

Fraser Valley Satellite Campus, memo from David Stouck, Department of
English, 15 June 1989.

Geography Environmental Studies and University Expansion: A Concept Paper,
Len Evenden, Department of Geography, 13 June 1989.

Local Heroes: Erindale and Scarborough are Vital Community Centres,
University of Toronto Magazine, Spring 1989.

Managing Multicampus Systems, A Report for the Carnegie Council on Policy
Studies in Higher Education, Lee, E. C. and F. M. Bowen, Jossey-Bass
Publishers, 1975.

Model for a College of Liberal Arts and Sciences in the Fraser Valley, Evan
Alderson, Stephen Duguid, 31 May 1989.

Notes on the Chilliwack Campus, Marilyn Bowman, Charles Crawford,
Department of Psychology.

*Participation and Locational Analysis of the Fraser Valley: A Report Prepared
for the Demographic Task Force*, J. T. Pierce, Department of Geography, June
1989.

Participation Rates and Future Enrollment in Ontario Universities, Council of
Ontario Universities, 1983.

Population Estimates and Demographics, memo from Walter Wattamaniuk,
Director of Analytical Studies, 19 December 1988.

Proposal for SFU Fraser Valley Initiative, Marilyn Cairns, Director, Academic
Advice Centre, 27 July 1989.

Report on Meeting with Presidents of the Fraser Valley Colleges, R. C. Brown, Dean of Arts, 1 June 1989.

Report on the Planning Committee on Interior Programming, SFU, Brian Wilson, 15 September 1977.

Report on Visit to the University of Toronto, R. C. Brown, Dean of Arts, 31 May 1989.

Scarborough College and the Multicampus University of Toronto, John Kirkness, University of Toronto.

Thoughts on Geography and Environmental Science, Ted Hickin, Department of Geography, 6 June 1989.

Urban Multi-Unit Community Colleges: Adaptation for the '70s, Palola, E. G. and A. R. Oswald, 1972.

Visits to University of Colorado and Arizona State University Systems, R. C. Brown and L. N. Meredith, 27 June 1989.

York University Faculty of Environmental Studies, brochure, 1988-89.