

Degree Completion at British Columbia's Universities

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ABSTRACT

This study investigated an important dimension of the performance of students in two of the universities in British Columbia. Specifically, it examined rates of degree completion, time taken to earn the degrees and the final academic standing attained by graduates. The study involved all students who enrolled between 1973 and 1978, both directly from secondary school and as transfer students from the community colleges in the province. Results were reported by faculty, by department in which students majored, and by sex.

The results revealed wide variations by faculty and department. Furthermore, results were not consistent between the two universities concerned. For example, female students performed far better than males at one university but not at the other. Finally, the study exposed many differences in performances between direct entry and transfer students, but again, the differences varied by university and faculty.

Finally, the study invited both speculation and further research on the reasons for the inconsistent results. Particular attention was drawn to the need to assess the impact of rising admission standards upon students' withdrawals, degree completion rates and final academic standing.

RÉSUMÉ

Cette étude examine une dimension importante de la performance des étudiants à deux universités de la Colombie-Britannique. Précisément, nous examinons le nombre proportionnel d'étudiants qui a réussi à obtenir un grade universitaire, le temps pris pour obtenir ce grade et le résultat académique atteint par les diplômés. L'étude inclut tous les étudiants qui étaient inscrits entre 1973 et 1978, soit en provenance des écoles secondaires ou des collèges publics de la province. Les résultats font mention de la faculté et du département dans lesquels les étudiants ont obtenu leurs diplômes de même que le sexe de l'étudiant.

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Les résultats ont révélé de grandes variations par faculté et par département. Par exemple, les étudiantes ont réussi beaucoup mieux à une université que les étudiants à l'autre. Enfin, l'étude a exposé beaucoup de différences de performances entre les étudiants provenant du secondaire et ceux provenant des collèges publics; mais ici encore, les résultats ont varié par université et par faculté.

Enfin, l'étude invite à la spéculation et à des enquêtes additionnelles sur les causes de ces résultats incompatibles. En particulier, nous signalons le besoin d'évaluer les conséquences académiques de l'imposition de critères d'entrée de plus en plus exigeants, des désistements des étudiants, du pourcentage d'étudiants qui reçoivent leurs diplômes et du résultat académique qu'ils atteignent.

INTRODUCTION

The system of higher education in British Columbia consists of three public universities, fifteen *community colleges* and six *provincial institutes*. The *colleges*, modelled largely on multi-purpose two-year institutions in the United States, offer a comprehensive curriculum, which incorporates a broad mix of programs, including university transfer, career/technical, vocational, community education and general academic upgrading.

The inclusion of the "university transfer" component within the colleges provides the opportunity for students to complete the first two years of most degree programs available in the universities. In each college students are counselled to select courses which provide the equivalency of credit which is specific to the university and degree program of their choice.

While the college courses, under the "university transfer" rubric, are equivalent to the comparable courses at the university with respect to general content and overall academic standards, there are several other factors which influence the decisions of students to choose the college, rather than the university route, in their first years of post-secondary study. Colleges generally operate on an "open admissions" policy, which provides a second chance to enter the university stream for students whose academic records are, for a variety of reasons, less than complete. In particular, adult and mature students take advantage of this policy. Further, community colleges are strategically located in several rural and urban regions of the province, which increases their accessibility in geographic and other respects. Tuition fees are less than half of those for equivalent programs at universities, a factor which, together with the opportunity to live at home, make the colleges financially attractive. Finally, the community colleges have displayed a commitment to quality education through extensive counselling and student services, relatively small classes and laboratories, a recognition of teaching as a faculty member's prime responsibility and an emphasis upon student-faculty contact in and out of formal classes.

It should be noted that, with one exception, the *provincial institutes* do not

offer academic transfer programs. Their major focus is technological and specialized occupational training. The exception is the Open Learning Institute, a distance learning institution which provides academic courses leading to baccalaureate degrees in a limited number of disciplines, and a variety of other programs within a comprehensive model.

In 1964, when the first community college was established, the general assumption was that the student population would consist primarily of college-age full-time students, not unlike those attending universities. In fact, an eighteen year period of evolution has produced a most heterogeneous student body in the college system, the majority of whom are mature, part-time and representative of a broad segment of the general population in socio-economic terms.

A large number of studies in British Columbia concerning the performance of college students after transfer to university have been conducted during the past fifteen years.¹ In most cases the focus of these studies has been to measure the academic success of transfer students by faculty, by department, and by course, against comparable performances by "non transfer" students*, i.e., those who originally began their post-secondary studies at the university. The conventional assumption has been that the success of these students is a measure of the quality of college instruction under which the students took their initial exposure to tertiary education. To a certain extent these studies have contributed to the credibility of the college system in the view of the educational community and the general public.

In several respects, specifically age, socio-economic status and previous academic performance, college transfer students differ significantly from "direct entry" students.² Despite these differences transfer students are treated no differently than their counterparts in the assessment of their academic standing at university. Undoubtedly there are alternative measures which might be used but, as yet, there have been few attempts to seek such measures.

The study** which is described in this paper summarizes a different approach to the assessment of university performance. It focuses upon the final attainment of a baccalaureate degree and the final academic standing at the time the degree was awarded. While the original intent of the study³ was to add a further dimension to the assessment of transfer students, the data so generated produced some new and intriguing observations upon degree completion generally and upon the variations which occurred among specific faculties, and upon differences in the performance between male and female students at two of the public universities in British Columbia.

While it is evident that the notion of college "transfer" students is characteristic of British Columbia, Alberta and Quebec, there are a number of informal

* In various studies the terms "non transfer", "native students", "regular students", and "direct entry" students are used in slightly different contexts. For the purposes of this report, the terms are used interchangeably.

** The study was conducted by B.C. Research under contract to the Academic Council of British Columbia.

arrangements in other provinces for students to transfer, with credit, to universities. However, the more general questions of degree completion, retention and attrition, with respect to conventional university students, which are addressed in this study, are applicable to a greater understanding of quality in tertiary education. At a period when the values of university education are in question and while the extent of commitment of public funds to this enterprise is under serious review, the results of this study make an important additional contribution to the level of debate on the subject.

METHODOLOGY

The first step in the study was to develop a computer program which would summarize the performance of all students enrolling for the first time in the University of Victoria and the University of British Columbia between 1973-1978 both as "direct entry" students and as "college transfer" students from the fifteen public community colleges of the province. The criteria for performance were attainment of a baccalaureate degree, the time taken to complete the degree, the rate of withdrawal from university, and the academic standing of the degree if awarded.

In view of the results found in previous studies⁴ regarding the performances of men and women students, the data were recorded by sex. Individual students were reported by faculty at the time of initial enrolment at university and by faculty and department at graduation.

Three distinct groups of students were involved in the study. The first group, called "direct entry" students, was composed of those students entering directly from secondary school into university. These students enter faculties which allow for direct admission at the first year level, i.e., Arts, Science, Education, Agricultural Science, Home Economics, Nursing, Fine Arts.

The second group, referred to as "college transfers", comprised students who enter university after earning academic transfer credits at one of the fifteen public community colleges or the Institute of Technology. The majority of these students enter at the second year level of the faculties listed above, or at the first year of Commerce, Applied Science and Forestry. The faculties in this latter group require one year of successful university study, or the equivalent, as a prerequisite before beginning the first year in the faculties.

The third group of students involved in the study was selected as a comparative measure. It has been argued that direct comparison between college transfer and direct entry students is inappropriate as the former group is academically "filtered" (i.e., they are students who have successfully "survived" their first year of tertiary education at their college as a condition of transfer). Consequently, it was decided that the only comparable group of direct entry students were those who had successfully completed their first year at university and could be similarly classified as academic "survivors". This particular group of students was called "continuing direct entry students" for the purposes of the study.

In determining whether students had completed a baccalaureate degree "on time", it was necessary to take into account whether the student had changed his or her faculty of enrolment, a decision which may increase the minimum time necessary for graduating "on time". For example, a student initially enrolling in the Faculty of Arts in 1973, at the first year level, would normally graduate in 1977. If, however, he transfers into first year Commerce, after one year in Arts, his graduation year would be 1978. Longer delays in graduating could occur if the student transfers to Law or Dentistry, for example.

One further comment should be made with respect to the caveats placed upon the study. The data regarding degree completion and withdrawal are generated from within the university in which the students are enrolled. Graduation rates do not include those students who have withdrawn from their original university and eventually earned a degree in another institution, in or out of the province.

RESULTS

Table 1 summarizes the enrolment of college transfers at the University of British Columbia between 1973 and 1979. The percentage of transfers with respect to all first time enrollees ranged between 20 and 25 percent during this period. The total number of transfer students each year has fluctuated very little, despite the growth of the college system from nine to fourteen institutions during this period. Previous studies^{5,6} have indicated that the transfer rate has remained between 15 and 20 percent. The university transfer programs in the colleges have not grown in relation to the total college population, however.

A modest but steady growth in the number of transfer students has occurred at the University of Victoria during this period, also evidenced in Table 1. The percentage of these students within the total population has fluctuated only slightly.

In both universities the proportion of female students, for both college transfer and direct entry, has increased slightly between 1973 and 1979 although the figures are highly variable.

The data indicated that the highest percentages of students entered the Faculties of Arts (29.4%), and Science (15.4%) at UBC and Arts and Science (69%) and Education (20.8%) at University of Victoria.

One further general observation regarding the three categories of students utilized in this study should be made. By comparing the number of students entering university for the first time from secondary school (i.e. direct entry students) with the number of continuing direct entry students (i.e. students from the same cohort who "survived" first year and began their second year in university), it was possible to estimate the withdrawal rate after one year of study. At UBC the withdrawal rate of the 1973 cohort was 29.8%, 1974 (24.7%), 1975 (22.8%), and 1976 (21%). At the University of Victoria the comparable figures were 1973 (46.6%), 1974 (37.8%), 1975 (37.2%) and 1976 (32.6%).

Table 1: First-Time Enrolment by University 1973-79

		University of British Columbia										University of Victoria							
		1973	1974	1975	1976	1977	1978	1979	Total			1973	1974	1975	1976	1977	1978	1979	Total
College Transfer										College Transfer									
Male	N	690	680	753	711	746	665	646	4891	Male	N	178	193	220	186	168	186	223	1354
	%	62.8	59.5	58.0	52.1	55.2	52.7	50.0	55.5		%	57.2	50.9	50.0	44.8	44.2	43.1	46.7	47.8
Female	N	409	463	546	655	605	597	648	3923	Female	N	133	186	220	229	211	246	255	1480
	%	37.2	40.5	42.0	47.9	44.8	47.3	50.0	44.5		%	48.3	49.1	50.0	55.2	55.5	56.9	53.3	52.2
Total	N	1099	1143	1299	1366	1351	1262	1294	8814	Total	N	311	379	440	415	380	432	478	2835
	%	100	100	100	100	100	100	100	100		%	100	100	100	100	100	100	100	100
Total University										Total University									
Male	N	2706	3012	2939	2706	2653	2454	2712	19182	Male	N	1102	1054	965	898	923	1030	1066	7038
	%	54.8	53.8	52.2	48.7	49.7	48.1	50.4	51.1		%	53.9	48.1	43.4	44.3	44.0	44.9	44.0	46.0
Female	N	2235	2591	2691	2853	2690	2651	2671	18382	Female	N	944	1139	1256	1126	1174	1262	1356	8257
	%	45.2	46.2	47.8	51.3	50.3	51.9	49.6	48.9		%	46.1	51.9	56.4	55.6	55.9	55.1	56.0	54.0
Total	N	4941	5603	5630	5559	5343	5105	5383	37564	Total	N	2046	2193	2224	2027	2099	2242	2422	15303
	%	100	100	100	100	100	100	100	100		%	100	100	100	100	100	100	100	100
Transfers as Percentage of Total University										Transfers as Percentage of Total University									
		22	20	23	25	25	25	24	23			15	17	20	21	18	19	20	19

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Table 2: Graduation Rates by Selected Faculties by University

University of British Columbia							University of Victoria							
COHORT 1973	Faculty	N	Early	On Time	Late	Total	COHORT 1973	Faculty	N	Early	On Time	Late	Total	
	Arts	1043	1.4	29.7	20.1	51.3		Arts/Science	893	0.1	16.8	16.3	33.3	
	AgSci	52	1.9	34.6	17.3	53.8		Education	268	1.4	9.3	12.3	23.1	
	HEcon	59	-	61.0	10.2	71.2		Fine Arts	63	-	30.2	15.9	46.0	
	Ph.Ed.	80	-	28.8	26.3	55.0		Female	559	0.7	16.8	15.7	33.3	
	Nursing	59	-	47.5	23.7	71.2		Male	665	0.2	15.8	12.9	30.4	
	Science	1141	0.2	38.5	20.9	59.6		COHORT 1974						
	EI Ed	143	-	49.7	9.1	58.7		Arts/Science	855	0.1	17.0	14.4	31.5	
	Sec Ed	137	-	42.3	16.1	58.4		Education	354	0.9	14.1	9.0	24.0	
	Female	1325	1.0	39.6	18.3	58.9		Fine Arts	68	1.5	23.5	7.4	32.4	
	Male	1466	0.3	33.3	20.7	54.4		Female	670	0.6	17.3	12.4	30.3	
	COHORT 1974							Male	613	0.2	15.8	12.9	28.9	
Arts	1073	0.1	28.6	17.6	46.3	COHORT 1975								
AgSci	60	-	20.0	13.3	33.3	Arts/Science	893	0.2	12.3	12.3	29.6			
HEcon	70	-	51.4	12.9	64.3	Education	255	0.8	3.1	3.1	18.4			
Ph.Ed.	130	-	30.0	17.7	47.7	Fine Arts	89	2.2	9.0	9.0	28.1			
Nursing	71	-	54.9	16.9	71.8	Female	729	0.7	8.5	8.5	25.4			
Science	1320	0.2	38.3	19.2	57.7	Male	512	0.2	12.5	12.5	30.1			
EI Ed	192	0.5	48.4	8.9	57.8	COHORT 1975								
Sec Ed	164	0.6	33.5	14.6	48.8	Arts	1114	0.3	27.7	10.1	38.2			
Female	1497	0.1	38.7	16.6	55.4	AgSci	65	-	33.8	6.2	40.2			
Male	1668	0.2	32.3	18.1	50.6	HEcon	59	-	45.8	10.2	55.9			
COHORT 1975							Ph.Ed.	111	-	31.5	10.8	42.3		
Arts	1114	0.3	27.7	10.1	38.2	Nursing	77	-	40.3	13.0	53.2			
AgSci	65	-	33.8	6.2	40.2	Science	1312	-	34.1	9.1	43.2			
HEcon	59	-	45.8	10.2	55.9	EI Ed	192	-	47.9	8.9	56.8			
Ph.Ed.	111	-	31.5	10.8	42.3	Sec Ed	179	0.6	30.7	1.7	33.0			
Nursing	77	-	40.3	13.0	53.2	Female	1512	0.2	37.2	10.5	47.9			
Science	1312	-	34.1	9.1	43.2	Male	1701	0.1	28.8	7.6	36.5			
EI Ed	192	-	47.9	8.9	56.8									
Sec Ed	179	0.6	30.7	1.7	33.0									
Female	1512	0.2	37.2	10.5	47.9									
Male	1701	0.1	28.8	7.6	36.5									

These figures invite further comment, which will be offered at appropriate sections in the remainder of this paper.

With respect to degree completion at UBC, Table 2 summarizes the status of three cohorts of direct entry students, i.e., those who entered the first year of the corresponding faculty directly from secondary school in 1973, 1974, and 1975. As the data are current as of April 1980, it is evident that all three cohorts would be expected to have graduated if their progress was "on time". It is evident that there was a considerable range in successful degree completion among the various faculties selected. Home Economics and Nursing, both relatively small programs numerically and "compact" in respect to curriculum, have high levels of degree completion. It is also interesting to note the modest increase in rate of degree completion when the time frame is extended. In Arts, for example, the 1975 cohort would normally have graduated within five years, by 1980. The 1973 and 1974 cohorts have had seven and six years respectively to complete their degree. The completion rates for these three cohorts rises from 38% (for the 1975 cohort) to 51% (for the 1973 cohort).

Table 2 also presents data which show the graduation rates of male and female students in the three cohorts. It is apparent that female students achieve higher

graduation rates than their male counterparts, an observation which invites considerable conjecture but few conclusions.

Data from the University of Victoria for direct entry students are also summarized in Table 2. In this university only three faculties lend themselves to analysis, with respect to the number of students involved. In general, the graduation rates are somewhat lower than those at the University of British Columbia. Possible explanations for this difference are offered in the conclusions section of this paper. It is also evident from data on degree completion by sex presented in the table that the superiority of females noted earlier in the University of British Columbia is not duplicated at the University of Victoria.

As a matter of interest the graduation status of the 1973 cohorts which initially entered the faculties of Arts and Science, respectively, at the University of British Columbia is summarized in Table 3. The data indicate that Arts students have, by 1980, graduated in fourteen different faculties. The comparable group of students entering Science have earned degrees in 15 faculties. These data dramatize the extent to which students change their goals and/or demonstrate the role of the "core" faculties in preparing students to enter the professional programs available in a large comprehensive university.

Table 4 presents graduation rate data on both continuing direct entry and transfer students at the University of British Columbia. For reasons outlined in the methodology section of this paper it is possible to draw some defensible comparisons between these two groups. In this table further information is supplied with respect to the status of the non-graduated students, specifically, "withdrawal" and "still enrolled". The college transfer students referred to in this table have all entered university with a minimum of one year of college credit. It was necessary to identify this subset of all college transfers to ensure reasonable comparability with the continuing direct entry students.

With respect to the faculties of Arts, Science, and Education, there was a general difference in performance in favor of the continuing direct entry students. The graduation rates of these students are higher than those of the transfer students. Similarly, the withdrawal rates of transfer students were generally higher. However, in the case of the Faculties of Applied Science and Commerce, which are different to the extent that one year of post-secondary study is required for admission to first year, the continuing direct entry students show substantial superiority over the transfer students with both higher graduation and lower withdrawal rates.

In considering the withdrawal rates by faculty and by cohort it is important to remember that these data represent the students who have already "survived" their first year at university. Previous comment has been made regarding the withdrawal rate in first year. Clearly the overall withdrawal rates will be higher if calculated on the basis of the students' initial admission to the University.

Withdrawal rates vary considerably among faculties and are related to graduation rates. Students under the "still enrolled" category include a large number who change faculties, which delays their scheduled graduation. It should be noted

TABLE 3: Degrees Earned (1980) by Direct Entry Students (1973) in the Faculties of Arts and Science at the University of British Columbia

	Faculty		Total
	Arts	Science	
<u>No. Students Entering</u>	1043	1141	2184
<u>Degree Earned</u>			
Dip. Dent. Hygiene	2	5	7
LLB	11	2	13
B.S.N.	7	5	12
B.A.	265	42	307
B.F.A.	5	-	5
B.Comm.	131	55	186
B.Sc.	20	343	363
B.H.E.	7	8	15
B.P.E.	-	3	3
B.R.E.	3	-	3
B.Mus.	5	4	9
M.D.	-	13	13
D.M.D.	-	3	3
B.S.W.	13	-	13
B.S.R.	5	18	23
B.A.Sc.	-	127	127
B.S.F.	3	33	36
B.Ed.	<u>59</u>	<u>19</u>	<u>78</u>
Total (N)	<u>536</u>	<u>680</u>	<u>1,216</u>

that this factor is particularly prevalent in the faculties of Arts and Science. Further analysis of student behavior in those two faculties indicates that many eventually graduate in a variety of faculties other than the one in which they originally enrolled.

Comparable data from the University of Victoria are also summarized in Table 4. Only two faculties, Arts & Science, and Education, enroll sufficient students to draw meaningful comparisons. In these cases, however, the differences between college transfer and continuing direct entry students are not large and the pattern is somewhat different from that found at the University of British

Table 4: Enrolment Status of College Transfer* and Continuing Direct Entry Students by University

Faculty	Student Group	Cohort	University of British Columbia			Faculty	Student Group	Cohort	University of Victoria				
			N	% Grad	% Withdrew				% Still Enrolled	N	% Grad	% Withdrew	% Still Enrolled
ARTS	Transfer	1974	149	60.4	35.6	4.0	ARTS & SCIFNCF	Transfer	1974	105	59.0	40.0	1.0
		1975	184	61.4	32.6	6.0			1975	144	48.6	40.3	11.1
		1976	174	42.5	44.3	13.2			1976	142	37.3	54.2	8.5
	Continuing Direct Entry	1974	520	68.1	27.9	4.0		Continuing Direct Entry	1974	412	56.8	38.6	4.6
		1975	630	61.1	32.1	6.8			1975	489	50.5	43.1	6.3
		1976	642	52.0	34.0	14.0			1976	511	50.9	38.4	10.8
SCIENCE	Transfer	1974	141	63.8	35.5	0.7	EDUCATION	Transfer	1974	42	40.5	54.8	4.8
		1975	94	54.3	38.3	7.4			1975	55	29.1	61.8	9.1
		1976	131	51.1	30.5	18.3			1976	63	22.2	60.3	17.5
	Continuing Direct Entry	1974	508	71.1	24.6	3.7		Continuing Direct Entry	1974	178	28.1	64.6	7.3
		1975	629	71.2	20.2	8.6			1975	218	32.6	58.3	9.2
		1976	611	55.8	26.8	17.3			1976	188	24.5	53.2	22.3
EDUCATION (Elementary)	Transfer	1974	68	64.7	32.4	2.9	*College Transfers refers to students with one year of college credit.	Transfer	1974	68	64.7	32.4	2.9
		1975	72	73.6	20.8	5.6			1975	72	73.6	20.8	5.6
		1976	75	72.4	25.0	2.6			1976	75	72.4	25.0	2.6
	Continuing Direct Entry	1974	133	79.7	20.3	-		Continuing Direct Entry	1974	133	79.7	20.3	-
		1975	201	75.6	20.9	3.5			1975	201	75.6	20.9	3.5
		1976	213	75.6	18.8	5.6			1976	213	75.6	18.8	5.6
APPLIED SCIENCE	Transfer	1974	47	66.0	23.4	10.6	APPLIED SCIENCE	Transfer	1974	47	66.0	23.4	10.6
		1975	77	63.6	28.6	7.8			1975	77	63.6	28.6	7.8
		1976	74	45.9	28.4	25.7			1976	74	45.9	28.4	25.7
	Continuing Direct Entry	1974	127	88.2	9.4	2.4		Continuing Direct Entry	1974	127	88.2	9.4	2.4
		1975	166	74.7	16.9	9.0			1975	166	74.7	16.9	9.0
		1976	165	60.0	14.5	25.5			1976	165	60.0	14.5	25.5
COMMERCE	Transfer	1974	106	59.4	37.7	2.8	COMMERCE	Transfer	1974	106	59.4	37.7	2.8
		1975	104	54.8	35.5	9.6			1975	104	54.8	35.5	9.6
		1976	125	45.6	35.2	19.2			1976	125	45.6	35.2	19.2
	Continuing Direct Entry	1974	210	79.0	19.0	1.9		Continuing Direct Entry	1974	210	79.0	19.0	1.9
		1975	210	70.5	19.0	10.5			1975	210	70.5	19.0	10.5
		1976	251	47.0	21.9	31.1			1976	251	47.0	21.9	31.1

*College Transfers refers to those students with one year of college credit.

Columbia. The very high rates of withdrawal in both groups of students is also at variance with comparable rates found at U.B.C. Further attention will be given to these phenomena in the conclusions.

Finally, Table 5 summarizes the final academic standing at graduation of both college transfer and continuing direct entry students in selected faculties at the University of British Columbia and the University of Victoria respectively. Again it is evident that at the former institution continuing direct entry students have higher standings at graduation than the college transfer group. However, at the University of Victoria comparable differences in these two groups of students are somewhat less. This observation is consistent with other data which suggests that transfer students perform better at the University of Victoria than at the University of British Columbia.

CONCLUSIONS AND IMPLICATIONS

While a variety of studies in post-secondary education have assessed the performance of transfer students at universities by their eventual success in courses, departments and faculties in various years after transfer, often comparisons are made with direct entry or "non-transfer" students despite some established differences between the two groups. However, few studies have been concerned with one other aspect of student performance, namely, eventual graduation with a baccalaureate degree.

While this study initially focused upon college transfer students, it did produce data on two other categories of students, i.e. those who enter university directly from secondary school, designated as "direct entry" students, and a subset of this group, those who "survive" their first year and continue their enrolment at the next level. The latter group was designated in the study as "continuing direct entry" students. For purposes of comparison with college transfer students, the continuing direct entry group is appropriate, in that both are successful "survivors" of their first year of post-secondary study.

In addition to its major objective the study produced some interesting data on the broad issue of degree completion in general at two of British Columbia's universities, University of British Columbia and University of Victoria.

The discussion which follows highlights some of the more intriguing conclusions and implications which emerged in the analysis of the data.

(1) There is a considerable range in graduation rates of direct entry students among various faculties. In the 1973 cohort at U.B.C., the rates ranged from 71% in both Home Economics and Nursing to 51% in Arts. Not surprisingly, the graduation rates diminished in succeeding cohorts (who have had less time to complete their degrees) but the pattern remained similar. Evidently, cohesive units such as Home Economics and Nursing, where the curriculum is largely mandatory, may also provide the support which helps students to progress to the degree without undue delay.

In general, however, the modest rate of degree completion does invite further

Table 5: Degree Completion by Final Academic Standing of College Transfer and Continuing Direct Entry Students by University

Faculty	Student Group	Cohort	University of British Columbia				Faculty	Student Group	Cohort	University of Victoria				
			Number	Academic Standing	First %	Second %				Pass %	Other %	Number	Final Standing	First %
ARTS	Transfer	1974	149	7.4	45.6	6.0	1.3	ARTS & SCIENCE	Transfer	1974	105	15.2	35.2	8.6
		1975	184	6.5	48.9	3.8	2.2			1975	144	11.1	31.9	5.6
		1976	174	10.3	29.3	2.3	.6			1976	142	8.5	27.5	1.4
	Continuing Direct Entry*	1974	520	14.2	48.3	4.4	1.2		Continuing Direct Entry	1974	412	16.0	35.9	4.9
		1975	630	10.4	44.8	4.0	1.0			1975	489	14.3	33.5	2.7
		1976	642	9.7	38.0	4.2	.2			1976	511	15.7	32.1	3.1
SCIENCE	Transfer	1974	141	8.5	39.0	7.1	9.2	EDUCATION	Transfer	1974	42	9.5	31.0	-
		1975	94	11.7	30.9	8.5	3.2			1975	55	3.6	25.5	-
		1976	131	18.3	26.7	4.6	1.5			1976	63	6.3	15.9	-
	Continuing Direct Entry	1974	508	20.3	38.2	6.9	6.3		Continuing Direct Entry	1974	178	6.7	19.1	2.2
		1975	629	21.0	39.7	8.1	2.4			1975	218	11.5	21.1	-
		1976	611	11.3	31.6	3.8	2.1							
ELEMENTARY EDUCATION	Transfer	1974	68	4.4	55.9	4.4	-							
		1975	72	6.9	65.3	1.4	-							
		1976	76	7.9	64.5	-	-							
	Continuing Direct Entry	1974	133	9.8	67.7	1.5	.8							
		1975	201	12.9	61.7	1.0	-							
		1976	213	12.2	62.0	1.4	-							
APPLIED SCIENCE	Transfer	1974	47	8.5	38.3	17.0	2.1							
		1975	77	10.4	44.2	9.1	-							
		1976	74	8.1	35.1	2.7	-							
	Continuing Direct Entry	1974	127	19.9	59.8	8.7	-							
		1975	166	18.7	51.8	3.6	-							
		1976	165	13.3	43.0	3.6	-							
COMMERCE	Transfer	1974	106	2.8	44.3	.9	-							
		1975	104	2.9	37.5	1.9	-							
		1976	125	2.4	32.0	-	-							
	Continuing Direct Entry	1974	210	3.8	62.4	7.6	-							
		1975	210	6.2	53.3	5.2	-							
		1976	251	5.2	37.8	-	-							

*Continuing Direct Entry students while in their first year of Applied Science and Commerce, are in their second year of university.

study, particularly in light of the academic requirements which govern overall admission to university and to specific faculties, in particular. In fact, admission requirements at the University of British Columbia have increased considerably since 1977. It will be instructive to examine graduation rates for post-1977 cohorts, after the imposition of the higher admission requirements.

Similar observations can be made with regard to the University of Victoria data. In this case the graduation rates are somewhat lower than at U.B.C. It appears again that the smaller, more "compact" faculty, Fine Arts, produces higher graduation rates than in the other faculties.

In both universities the extension of time available for graduation, through successive years of study, adds small increases in the degree completion rates. While the 1975 cohorts have had five years to complete a baccalaureate degree, the 1974 and 1973 cohorts have had six and seven years, respectively. The graduation rate differences, by faculties, among the three cohorts are usually small but clearly evident.

(2) Several previous studies have indicated that female students enjoy greater success than males in high school and college with respect to academic performance.⁴ The data from U.B.C. in this study tend to confirm this observation with regard to degree completion. However, the data from the three faculties at the University of Victoria show little difference between the sexes on the same criteria. This difference between the two universities may be explained by the inclusion of the two faculties, Home Economics and Nursing, at U.B.C. which are virtually all female and show high rates of graduation.

(3) Some comment must be made regarding the differences in degree completion rates, by faculty, of direct entry students at the two universities studied. The University of British Columbia includes many professional faculties such as Applied Science, Commerce, Medicine, Dentistry, and Pharmaceutical Science, whereas the University of Victoria has only a limited number of such faculties. It is possible that a certain number of students will transfer from the University of Victoria to the University of British Columbia early in their post-secondary study in order to facilitate admission to the latter's professional schools. This hypothesis, if valid, would help explain the high withdrawal rates after first year at the University of Victoria and, eventually, the low degree completion rates.

In fact, data from U.B.C. show that in the years 1974, 1975, 1976 and 1977 transfers from U. Vic. were 176, 126, 153, and 145 students respectively. Translated into percentages these figures account for 14%, 10%, 13% and 12% of the withdrawals from U. Vic. in these years. However, it is evident that the residual withdrawal rates from the University of Victoria are still high by comparison with comparable figures from the University of British Columbia. Further study of this phenomenon is indicated.

(4) The withdrawal rates after first year at both universities for direct entry students appear to be decreasing steadily after 1973. It may be hypothesized that the "liberal" admission policies followed by the universities in the early seventies would contribute to the not inconsiderable early withdrawal rates.

It will be interesting to test this hypothesis by examining comparable data after 1977 when the admission requirements, in terms of both overall high school G.P.A. and specific subject prerequisites, were rapidly escalated.

(5) The performances of college transfer students, particularly measured against those of continuing direct entry students, vary to some extent. For some reason college transfer students perform relatively better at the University of Victoria than at the University of British Columbia. It is conceivable that the smaller, less threatening learning environment at the former institution is more suitable for transfer students from small colleges. There is evidence that many students from the interior rural colleges of the province prefer to transfer to U. Vic., presumably for this reason.* Whatever the cause, college transfer students appear to perform less well at U.B.C., particularly in the professional faculties of Commerce, and Applied Science which admit students only at the second year level. Clearly, colleges should take particular note of these data and assess their instructional programs appropriately. However, it is also important to remember that many college transfer students do succeed at universities, often with considerable academic standing. It must also be remembered that a high percentage of these successful students could not have entered university without the opportunity provided by the college system.

(6) The academic standing at graduation earned by college transfer students invites conclusions which are consistent with those reached in other studies of academic performance by such students. College transfers seem to earn lower percentages of first class grades than continuing direct entry students but their proportion of pass standing grades are reasonably comparable.

(7) Analysis of enrolment data at the universities between 1973 and 1978 indicates that the college transfer component remains a steady percentage of all entering students (i.e. in the vicinity of 25%). While the proportion of college transfers is not insignificant, it does appear to have reached a plateau. Evidently this "steady state" reflects the changing priorities within the college system where academic programs serve different purposes than university transfer. While the transfer option remains for some students from college academic programs, many are unwilling or unable to continue their career in that stream. It is possible that the advent of the Open Learning Institute, which offers degrees through independent home study, and a generally unfavorable media view of the employability of university graduates, have both contributed to this plateau phenomenon. While it is difficult to predict the trends of the future, the community college should continue to play a unique role in the post-secondary educational system of British Columbia.

The conclusions reached in this study, while tentative to some extent, supplement the results of other studies with regard to the performance of college trans-

* Conversations with college counsellors have often referred to such student preferences and these comments would appear to be supported by the actual numbers of students transferring from the interior colleges to U. Vic. See, for example, Forrester, G.C. *et al. Trends in University Achievement 1976-1980*. December, 1981. Report 46. Pp. 141-146.

fer students at university. In addition, new data on degree completion rates, withdrawal rates, and academic standings, with respect to direct entry students, introduced questions which require further analysis. The list of unanswered questions includes the following:

- a. What are the bases for the large and consistent differences on most variables measured in this study between the University of British Columbia and the University of Victoria?
- b. What factors contribute to the wide variations in degree completion rates among the various faculties?
- c. What impact will the increasing admission standards since 1977 have upon withdrawal and degree completion rates and final academic standing?
- d. What factors influence the very different performance by college transfer students between the two universities? Is the impact of transfer "shock"⁷ less effective at the smaller institution than at the large comprehensive multi-university?

These and many other questions raised through this study, will require attention before a full and useful insight into the post-secondary educational system of the province can become the basis for effective policy making in the future.

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