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ABSTRACT

This study concerns the educational preparation and academic caliber of students who seek college admission at times other than the traditional fall entry point. Subjects for the study were comprised of the entire freshman class of fall and spring registrants at the University of Lethbridge during the academic year 1968-69. The two groups of students, those registering in the fall and spring semesters, respectively, were compared on a number of variables. The results of the study show that the fall and spring semester registrants do not differ appreciably on general characteristics, and that it is most likely a misconception that the spring semester enrollees are largely the repeaters of high school courses. Data showed that a substantial proportion of spring registrants were either transfer students or those who had to defer university entrance for a semester or so due to financial or other personal reasons. The educational preparation of a transfer student is appreciably better than that of a freshman matriculant. This may be the reason why this group despite its achieving a significantly lower grade-point average on the high school examinations, gave a performance comparable to those of fall registrants in the freshman course examinations. (Author)

WHO GOES WHEN TO COLLEGE?

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ABSTRACT

From time to time questions have been raised concerning the educational preparation and academic calibre of students who seek college admission at times other than the traditional fall entry point. The results of this study provide partial answers to these questions. More precisely, the purpose of this study was to examine whether students who seek university registration during the mid-year differ substantially academically or otherwise, from those who enter university at the usual registration time in early fall. Subjects for the study were comprised of the entire freshman class of fall and spring registrants at the University of Lethbridge during the academic year 1968-69. The data were obtained from the records maintained at the Registrar's office. The two groups of students, those registering in the fall and spring semesters respectively, were compared on a number of variables. The results of the study show that the fall and spring semester registrants do not differ appreciably on general characteristics and that it is, most likely, a misconception that the spring semester enrollees are largely the repeaters of high school courses or the Provincial Department examinations. In fact, our data showed that a substantial proportion of spring registrants were either transfer students or those who had to defer university entrance for a semester or so due to financial or other personal reasons. The educational preparation of a transfer student is appreciably better than that of a fresh matriculant. This may be the reason why this group despite its achieving a significantly lower grade-point average on the high school examinations, gave a performance comparable to those of fall registrants

in the freshman course examinations. On the other hand, the lower average freshman course-load carried by the spring group may have contributed, to some extent, to their improved performance.

WHO GOES WHEN TO COLLEGE?

Introduction

If the decade of the 1960's was marked by expanding college student enrolment, the decade of 1970's may become known to the future educationists as the period of innovation and experimentation in higher education. Colleges and universities across Canada are now more than ever before experimenting with new ideas and programmes in every aspect of higher education; open admission policies are being suggested in the face of arguments that the present admission standards are discriminatory; relevance of the present curricular offerings is being questioned and student grading systems are under examination. With regard to academic schedules, two types of questions have been raised: (1) what type of academic calendar permits a maximum flexibility in student study programmes and mobility; and (2) what type of calendar would accommodate an optimum number of students without unduly taxing the available resources. While these above questions have received fair attention in an attempt to satisfy the needs of a diversified student population, no attempts have been made to our knowledge to study the background, educational preparation, and academic calibre of students who seek university admission at times other than the traditional fall entry point. The present study is an attempt in that direction. More precisely, the purpose of this study is to determine whether students who would seek university registration in the spring semester are likely to differ appreciably - academically or otherwise - from those who enter University at the traditional registration time in the fall.

The Problem

From time to time, questions concerning reorganizing the academic calendar at the University of Alberta have been raised in order to achieve such objectives as: (1) better quality of education, (2) provide instruction for an increasing number of students with available resources, (3) reduce further demands for capital outlay, and (4) help students complete their degrees in shorter lengths of time. The main reason which led the University of Alberta to open afresh in 1969 the question of restructuring its existing year calendar was the recent move of most high schools in the province from the "year" system to the "semester" system*. This change led to a natural concern in various circles with regard to university entrance of high school graduates who would graduate at the end of the fall semester, i.e., in January. It was argued that since the University of Alberta operates on a "year" calendar with a single registration sometime in September, the January high school graduates would have to wait eight months before they could get into the university. It was also suggested that a restructuring of the University of Alberta academic schedule along the semester system could bring it in line with other educational institutions in the province.

The faculty, however, was greatly concerned about the academic calibre of the January high school graduates. One view was that a

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* The "year" system is defined an academic year divided into two parts (not necessarily equal in length) with admission to the university in the beginning of the first part; and with the unit of instruction a course the length of two parts.

A "semester" system refers to an academic year divided into two equal parts; with admission to the university at the beginning of each part; and with the unit of instruction a course the length of each part.

substantial proportion of these matriculants would consist of those students who are unable to complete successfully the matriculation requirements in June and would, therefore, be repeaters of either the courses or the Department examinations. These students would, in general, it was argued, be inferior in calibre to those graduating in June and seeking University entrance in the fall semester. Those who opposed this viewpoint contended that among the January matriculants there would be a proportion of those who accelerate their studies and complete matriculation requirements a semester earlier than an average matriculant. This group, accordingly, would at least be academically comparable to the June matriculants. Evidently, answers to these questions are basic to any decision that an institution takes with regard to the restructuring of its calendar year. It was, therefore, considered imperative to study these questions carefully and arrive at any such conclusions on the basis of systematic examinations rather than subjective opinions. Specifically, the following areas were examined:

1. What type of students seek university admission in mid-year, that is in January?

2. How do these students compare in educational preparation and academic calibre to those who register in the fall?

3. What proportion of the total freshman enrolment in a year are likely to seek admission in the spring semester?

4. How do students admitted as "adult mature" compare on freshman grades to those who are admitted on the basis of their matriculation requirements?

Subjects

The subjects for this study were comprised of 499 freshmen, 388 students who registered in the fall semester, and 111 students who registered in the spring semester of the academic year 1968/69 at the University of Lethbridge.* A freshman is defined a student registered for the first time at a college or university and enrolled in the first semester of his study programme.

Information was collected on the following variables: (1) sex, (2) student residence, (3) type of high school attended, (4) marital status, (5) matriculation year, (6) educational preparation, (7) number of high school subjects completed, (8) high school grade point average (GPA), (9) university entrance basis, (10) registration status, (11) freshman course load, and (12) freshman grade point average (FGPA).

It was assumed that the University of Lethbridge follows uniform standards for the two groups with regard to: (1) minimum admission requirements, and (2) evaluation of student performance.

Methodology and Results

Frequency distributions for the two groups over each of the variables were derived and chi-square tests of significance were applied to test the

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* Due to the lack of comparative data available at the U. of A. (since the U. of A. has always been on a "year" system with one entry point), the data for this study was obtained from the Registrar's Office at the University of Lethbridge. The University of Lethbridge, since its inception, has operated on a calendar consisting of two semesters plus a six week summer session. Two semesters normally constitute one full academic year.

Our thanks are due to the Officials of the University of Lethbridge for having their data available to us. Without their valuable assistance and willing cooperation, this investigation would not have been possible.

significance of observed differences. In addition, t and F tests were applied wherever appropriate, for testing the significance of differences between the means and testing the homogenity of variances. Observed patterns of differences are noted and discussed.

A. General Characteristics Comparison

No significant differences seem to exist between the two groups - one registering in the fall and the other in the spring semesters* - over the first four variables, namely, sex, residence, type of high school attended, and marital status, although slightly greater proportions of female and married students were observed in group B relative to group A. However, significant differences were observed between the two groups over the variable "matriculation year". The proportion of students who matriculated earlier than the year preceeding to their university entrance was appreciably higher for the spring group than the corresponding proportion for the fall group (Table I).

TABLE I

MATRICULATION YEAR

Group	Matriculation Year					Row Totals
	1969 & 1968	1967	1966	1965	1964 & Earlier	
A	74.5	7.5	4.1	2.1	11.9	100%
B	60.3	9.9	6.3	7.2	16.2	100%
Column Total	134.8	17.4	10.4	9.3	28.1	100%

x^2 value = 10.70 with d.f. = 4, $P < .05$

* To be referred as groups A and B respectively in the sequel.

For group A 74.5% matriculated in 1968 and 25.5% in the preceeding years. For group B, these figures stood at 60.3% and 39.7% respectively. Of the 60.3% matriculants in group B, 46.8% matriculated in June, 1968, and only 13.5% were the fresh January matriculants (see also page 8). A logical conclusion that can be drawn from the above results is that the bulk of high school students graduate in June and seek admission into University at the traditional fall entry point. On the other hand, the spring entry point facilitates registration of those students who transfer from some other post-secondary institution and those matriculants who for some reason or the other have had to defer their university entrance for some time - due to possibly financial or other personal reasons. (Student employment opportunities continue to be available during the fall and early winter months due to Christmas business activities.*) In group B, of the 46.8% June matriculants, 22.5% were transfer students and 24.3% were those who had delayed their registration for a semester. (This question is discussed in greater detail under the section "Educational Preparation", see pages 8 - 9.)

A percentage of 28.6 of the fall semester freshmen entrants, or 22.2% of the total 1968/69 freshman enrolment, entered the university in the spring semester. This ratio of four to one between fall and spring

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* N. Mehra, "Employment Conditions for Students, Report No. III", The Divided-Year Study. Office of Institutional Research and Planning, University of Alberta, Edmonton, October, 1969.

freshman enrolment seems consistent with figures reported by some other American and Canadian Universities as well where 25% to 30% of the total freshman class for a year register in the spring semester.*

B. Performance Comparison: High School Grade Point Average

Grade Point Average (GPA) is the most widely used measure of student performance. Although GPA may not be an accurate measure of the extent of subject-matter knowledge acquired by a student, it does indicate the relative level of his performance within the institution or system. While tabulating data to compare high school performance of students in the two groups, it was observed that an appreciable proportion of students in both groups were admitted on bases other than the high school grades. At the same time, a substantial proportion, especially in group B, had completed courses (100 series) above and beyond those required for high school graduation.

Admission Basis

It was observed that 81.4% of students in group A as compared to 57.6% in group B were granted admission on the basis of high school grades. On the other hand, only 1.5% of students in group A against 16.2% in group B were admitted on principal's recommendation. It should be pointed out that these 16.2% were largely the students who (presumably)

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* The above figure of 22% for the University of Lethbridge would be a conservative estimate since not all high schools in the province had moved to a semester calendar at the time this investigation was made.

had appeared in the Provincial Department examinations in January and whose results had not been declared at the time when they applied for university admission. Group B also had an appreciably larger proportion of students admitted as "adult mature" students* than group A. On summing up, 42.4% of students in group B as compared to 18.6% in group A were admitted on bases other than the high school grades. As a result, we could study comparatively the performance of only those students, namely, 81.4% in group A and 57.6% in group B, whose high school grades were available on their records.

Educational Preparation

In attempting to compare the high school performance of the two groups, we encountered still another situation in that we observed a significantly greater proportion of students in group B as compared to group A who had completed junior college level courses in addition to the required high school courses. For group A, 80.9% had completed matriculation requirements and only .05% had attended junior college level courses - making a total of 81.4%. For group B, these figures were 35.1% and 22.5% respectively - making a total of 57.6%.

It was not possible to determine how many of the 13.5% of group B students who matriculated in January 1969 were the repeaters of high

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* 'Adult mature' student is defined as one who is above 24 years of age, has not completed matriculation requirements, and has shown satisfactory performance on a scholastic aptitude test administered by the University.

school courses or departmental examinations, as this information was not contained in student records. On the other hand, it was a revealing fact that as much as 22.5% of group B students had educational preparation above and beyond that of the high school level, whereas for group A this figure stood at only .05%.

High School Courses

Before comparing the two groups on high school performance, it seemed only fair to look into the number of courses completed by students in the two groups. For group A, out of 81.4% matriculants, 63% had completed six or more subjects and 23.4% exactly five subjects. For group B these figures were 23.4% and 34.2% respectively. The observed difference was significant at .001 level ($x^2 = 37.07$ with d.f. = 1, $P < .001$). For comparing the average number of courses completed and testing the homogenity of variances for the two groups, t and F tests were applied and observed differences were again found to be significant at the .001 level.

High School Grades

One wonders as to how meaningful student performance comparison would be when nearly 40% of the group B students' high school grade point average was not mentioned on their records. In order to arrive at some tentative conclusions, the performance of those students whose GPAs' were available, that is, 81.4% in group A and 57.6% in group B was compared. As is evident from Table II below, 27.4% of 81.4% students in group A achieved 70% or better high school GPAs' whereas 7.2% out of 57.6% in group B reached this level.

The observed difference is significant at the .01% level (x^2 = 12.95 with d.f. = 1, P < .01). Difference between mean performance of the two groups were also significant.

TABLE II

CROSS TABULATION OF HIGH SCHOOL SUBJECTS
BY HIGH SCHOOL GRADE POINT AVERAGE

Subjects	Group	-59.9 1	60.0 - 69.9 2	70.0 - 79.9 3	80 & Above 4	Total
Category I	A	0.5	36.0	21.4	5.2	63.1
	B	1.8	18.9	2.7	---	23.4
Category II	A	0.3	17.2	0.5	0.3	18.3
	B	2.7	27.0	4.5	---	34.2
TOTAL	A	0.8	53.2	21.9	5.5	81.4
	B	4.5	45.9	7.2	---	57.6

It is interesting to note in the above table that the performance difference is significant only for students who had completed six or more high school subjects (Category I) and not for students who barely met the subject requirements (Category II), that is, who had completed exactly five subjects.

Categories 1 and 2, 3 and 4 as shown in Table II above were combined and so were Categories I and II for both the groups for computing x^2 values.

What does it indicate? It seems to indicate not only that group A relative to group B consisted of a significantly higher proportion of students who had completed more high school subjects, but, that for this category, the high school GPAs' of students in group A were also significantly better than those in group B.

C. Performance Comparison: Freshman Grade Point Average

The first step taken towards comparing the freshman performance for the two groups was to examine their registration status,*1 namely, full-time vs. part-time registration. It was observed that group A had a slightly higher proportion of full-time students than group B but the observed difference was not significant. Performance distributions derived for the two groups, using the four-point scale*2 in use at the

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* 1. Normal load required of a student at the University of Lethbridge is five courses. A student is assigned a full-time status if he is registered for three or more courses. A student registered for less than three courses is assigned part-time status.

* 2. The University of Lethbridge employs a letter system of grading which runs as the following:

	Letter Grade	Grade Points
Excellent	A	4
Superior	B	3
Average	C	2
Poor	D	1

A student is required to maintain a GPA of two points (C) or above to retain satisfactory academic standing.

University of Lethbridge, were not found to be significantly different either. The mean performance of the two groups was also tested by using the t-test and the obtained t-value of 2.24 suggested that the two groups were comparable as far as their performance in the first semester course examinations was concerned.

We wondered why is it that the two groups were performing comparably in the freshman courses, while students in group A relative to group B had performed significantly better in the high school Departmental examinations. It led us naturally to examine the average course load completed by students comprising the two groups. The obtained course load frequency distributions for the two groups were found to be significantly different at .05 level (x^2 value = 11.55 with d.f. = 2, $P < .05$). The mean number of courses completed by students for groups A and B were 4.60 and 3.98 respectively. The obtained t-value of -3.108 for testing the difference between the average number of courses completed was also found to be significant at 5% level (Table III).

TABLE III

CROSS TABULATION OF FRESHMAN COURSES BY

FRESHMAN GRADE POINT AVERAGE

COURSES COMPLETED	GROUP	0 - 1.99 1	2.00 - 3.00 2	3.01 - 4.00	TOTAL
		F A I L	P A S S	*	
5 Courses	A	29.1	36.9	9.3	75.3
	B	25.2	31.5	1.8	58.5
4 Courses	A	5.5	6.1	---	11.6
	B	8.1	9.0	1.8	18.9
3 Courses	A	1.3	0.8	0.5	2.6
	B	0.9	2.7	0.9	4.5
2 Courses	A	0.3	0.5	---	0.8
	B	2.7	1.8	1.8	6.3
1 Course	A	1.0	5.9	0.8	7.7
	B	----	5.4	1.8	7.2
TOTAL	A	37.2	50.2	10.6	98.0 Δ
	B	36.9	50.4	8.1	95.4

* Categories 2 and 3 under the pass clasification were collapsed to apply x^2 test.

Δ 2% and 4.6% students in Groups A and B respectively are those who withdrew during the academic term.

It was mentioned on Page 10 (Table II) that significant differences were observed on the high school GPAs' of those students in the two groups who had completed six or more high school subjects and that no performance differences were observed for students in the two groups who had completed exactly five high school subjects. We were curious to find out if the same phenomena was ocuring at the present level. In other words, were there performance differences between students in the two groups carrying different course loads? Accordingly, performance frequency distributions for two groups carrying different course loads, e.g., 5 courses, 4 courses, 3 courses, etc., were obtained and compared. It was not possible to test statistically the observed differences between various sets of frequency distributions since the observed frequencies in some of the cells were too small. On visual inspection, however, one could say that the performance differences between the two groups of students carrying the same course loads did not appear pronounced.

D. Discussion: Performance Comparison

One may question why the achievement for Category I in the two groups is more or less at par in the first semester freshman course examinations, when it is significantly different for the high school Department examinations. A number of factors could explain the underlying reasons. One explanation could be that since the course load for group A as compared to group B is heavier, it has affected their FGPA. This view is supported, to some extent, by the correlation coefficients

between the number of freshmen courses and FGPA, namely, -.17 and -.11 for the groups A and B respectively. (A negative correlation means that as the course load increases, the grade point average goes down.) These correlations suggest that (presumably) the heavier course load carried by group A students had affected their FGPA in relation to that of group B.

Another plausible explanation could be that, although group A as compared to group B had showed a better HSGPA to start with, a significant proportion of group B students had a better educational preparation at the university entrance time. This may have helped group B to give performance comparable to that of group A in the freshman course examinations. Again, the observed correlations between educational background and the FGPA for the two groups were found to be -.05 and .13 respectively. The former is too close to zero, but the latter value .13 is significantly positive. It can safely be inferred from the above results that the additional course work completed by group B students did help them to perform well in freshman courses.

Motivational factors and a positive sense of direction in case of adult mature students may also have accounted for the improved performance of group B in freshman course examinations. A number of studies comparing the academic performance of adult mature students with those of matriculants have shown that adult mature students tend to perform better than those admitted as matriculants.* The proportion of adult

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* Sharon Batt, Mature Students: Faculty of Education, Edmonton The Office of Institutional Research, the University of Alberta, May, 1972.

mature students in group B being appreciably greater than the corresponding proportion in group A in the present study as well, this could be yet another explanation for the comparable performance of students in the two groups.

E. Adult Mature Student vs. Matriculant

In examining the performance of two groups in freshman courses, it was observed that the adult mature students in group A - both full-time and part-time combined as well as full-time alone - performed significantly better ($P < .05$) than the matriculants. For group B, none of the performance comparisons of the three sets of students, namely, matriculants, adult mature, and those admitted on principal's recommendations - for full-time and part-time students combined as well for full-time students alone - showed significant differences.

Conclusions

The basic conclusion that could be drawn from the above analysis is that a majority of high school graduates tend to seek university registraiton at the traditional fall entry point. The spring registration privilege would facilitate the registration of those students who would wish to transfer from other institutions in mid-year or those who are forced to defer university entrance for a semester due to financial or other personal reasons. The results of this study show that the fall and spring semester registrants do not differ appreciably on general characteristics and that it is, presumably, a misconception that the spring semester enrollees would largely be the repeaters of high school courses or Departmental examinations. In fact, a substantial proportion

of students registering in spring could be those whose educational preparation is appreciably better than that of a fresh matriculant. This may, presumably, be the main reason why this group, despite its achieving a significantly lower grade point average on the high school subject examinations, gave a performance comparable to those of fall registrants in the freshman course examinations. On the other hand, the lower average freshman course load carried by the spring group could also have contributed to their improved performance.