

Working-Class Student Drop-Out Trend in Canada: The Université du Québec Case

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Abstract

The Université du Québec is a university system (10 establishments distributed throughout the Québec territory), created by a state law at the end of the sixties. Greater accessibility to higher education is part of the Université du Québec's mission. It is in this context that, very early on, the Université du Québec set up strategies aimed at better describing its students, understanding more clearly the dynamics of access to a diploma and identifying methods of intervention to support students up to graduation. The ICOPE surveys, conducted since 1993 among students recently registered in a university program are one of these strategies. By cross-referencing the data collected upon university entry with that from a longitudinal data file called the "Student Cohort System", it is possible to study the relationship between the students' destiny five years later (access to a diploma or drop-out) and their entry characteristics (living conditions, intentions, motivations, etc.). Our study was developed in terms of the analysis of this data.

The purpose of this study is to create a profile of the students in the Université du Québec system, with a special focus on young students from a low-income background. The chances that these students will obtain a university diploma after 5 years of observation and the risk that they will leave the institution without obtaining their diploma will then be estimated for those enrolled in a bachelor's program. Since the proportion of students who represent the first generation to go to university is greater among students with low socio-economic status than their more affluent peers, this proportion will be taken into account for the analysis.

Introduction

The Université du Québec is a university structured as a system, which includes ten establishments spread out across the province of Québec (Canada). Created by the Québec Government in the late sixties, its designated mission includes providing greater access to higher education and counteracting exclusion. Approximately 40% of its undergraduate students come from a low-income background and over 70% of its students are first-generation entrants, that is, students whose parents never attended university.

In this framework, it became important to initiate practical strategies to obtain more insight into the student population, monitor their development, gain a better understanding of the dynamics of "access" to a diploma and identify new methods of action which would improve the pursuit of studies all the way to a diploma. A series of surveys, the ICOPE surveys, conducted as of 1993 with new students in the Université du Québec's establishments, are one of these strategies. By matching the information gathered via a questionnaire completed when students enter university with data on the progression of the respondents (data derived from a student cohort follow-up system), we were able to study the relationship between the characteristics of the students and the end-result of their studies, namely access to a diploma or drop-out. It is based on this data that this study was developed.

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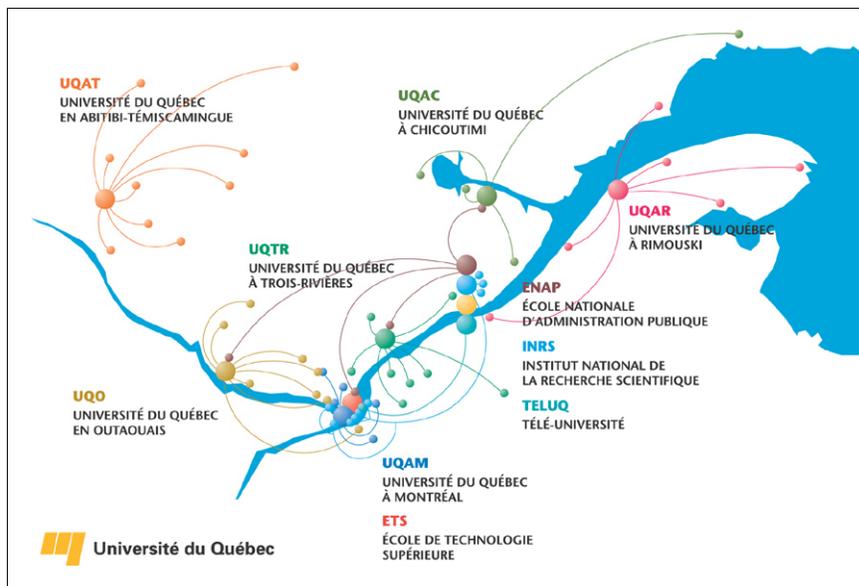
To achieve the proposed objectives of this presentation, we will begin with a practical description of the specific geographic context in which the Université du Québec operates, followed by definitions of the concepts applied and a description of the sources of the data used and how it was processed. Then we will present the descriptive statistics establishing the profile of the students and the analysis of their scholastic progression.

Geographic Context

The ten establishments in the Université du Québec system are located in seven Québec cities: Montréal, Québec, Rimouski, Saguenay, Trois-Rivières, Gatineau and Rouyn-Noranda. The Université du Québec system also has a presence in close to 50 other cities and municipalities in Québec, through the off-campus centres that these establishments have developed. The off-campus centres represent a strategic tool for offering access to higher education in areas that are far from major urban centres. In

addition, one of the establishments in the Université du Québec's system, the Télé-Université, specializes in distance education, making it possible for Quebecers to follow a university program from their own home. Figure 1 provides an excellent illustration of the Université du Québec's presence throughout the province of Québec.

Figure 1
Location of establishments in the Université du Québec system and off-campus outreach



For a better understanding of the logic behind the development of the Université du Québec system, it is important to be aware of some of the specifics of the situation in the province of Québec. Québec is one of the ten Canadian provinces, but it is also the only territory in America which is primarily francophone. Its total land mass is more than 1.5 million square kilometres, constituting 15% of the area of Canada and it is 10 times larger than England. Québec's population density is approximately 5 persons per square kilometre compared to England's, which is 370 persons per square kilometre. However its density is unique. In fact, although the land mass is broad, the north of the province is almost uninhabited. Close to 80% of Québec's population live near the shores of the St. Lawrence River, and half of its 7.2 million people live on less than 1% of the land mass in more urbanized areas. In addition, the distance from one city to another is often quite far due to the vast size of the province.

In such a context, it was important to develop educational centres at a number of sites in Québec to facilitate access to higher education. Table 1 compares the size of the cities where the various establishments in the Université du Québec system are located and the number of students attending those establishments.

Table 1
Number of students enrolled in the Université du Québec (UQ) and size of population broken down by location of establishment

University City	Number of Inhabitants in 2004 ^(a)	Number of Students at UQ in 2003 ^(b)	Other Québec Universities ^(c)
Montréal	1,862,608	45,136	122,855
Trois-Rivières	124,537	10,203	
Saguenay	148,339	6,583	
Rimouski	42,324	5,059	
Gatineau	239,679	5,418	
Rouyn-Noranda	39,844	2,378	
Québec	520,589	2,227	35,245

(a) Source: Ministère des affaires municipales, Sport et Loisir, Répertoire des municipalités du Québec, 2004.

(b) Source: Système PRISME, Université du Québec, fall 2003.

Note: The Télé-Université (distance education) had 7,744 students in fall 2003.

(c) Source: Québec Ministry of Education, fall 2003.

Note: The other Québec universities in Montréal are: Université de Montréal, HEC, École Polytechnique, Concordia University and McGill University, and in Quebec City: Université Laval.

The two largest cities in the province are Montréal and Québec City, with respective populations of 1.9 millions and 170,000. These two regions alone have close to 2.4 million people or 33% of the entire population. Note the active presence of the Université du Québec system in these two major cities: two establishments in Montréal (one for general education and a school of high technology (applied engineering)) and three specialized establishments in Québec City, one of which is the Télé-Université. One of its establishments is also located near a major Ontario city, Ottawa, which is Canada's capital.

Definitions

Certain concepts should be described in greater detail to make it easier to understand the results. Some useful definitions follow:

- **Drop-out** refers to a departure from the educational institution (that is, leaving the establishment without obtaining a diploma). A student may decide to continue his studies at another institution after leaving; however our data do not provide any such follow-up. Let us specify that to be classified as having dropped out, a student must be absent for more than six consecutive semesters. Note also that this definition includes both voluntary departures and those resulting from a sanction imposed by the establishment, which are not differentiated in our database¹.

¹ For instance, a study conducted at the Université du Québec à Montréal indicates that approximately 10% of the students registered in a bachelor's program are forced to leave the program, either because

- **New students** for purposes of this study are students registering in a university program for the first time, regardless of whether or not it is the first time they have registered with the establishment.
- A **first-generation entrant** is a student whose parents never attended university.

Sources of Data

Two sources of data were considered for this study: data from ICOPE surveys and data from the Student Cohort System.

ICOPE stands for "Indicators of Conditions for Pursuit of Education". This is a series of survey questionnaires addressed to all new students who register in the fall at the establishments in the Université du Québec system. To date, these surveys have been taken every 3 to 5 years, the first survey having been taken in 1993 and the most recent in 2001. Since 1993, close to 23,000 students from seven establishments in the system have filled out a questionnaire with an average response rate of 54%. The survey makes it possible to construct a curriculum vitae of the students as of the time they enter university. This curriculum vitae is comprised of the student's academic and socio-demographic characteristics, his living conditions, state of preparation and motivation to study, his intentions, his interest in his course program, and his knowledge of the program and of the employment opportunities. Note that the survey respondents are representative of the population of new students, with only one exception: women are slightly over-represented among those who responded.

As for the Student Cohort System, this is a longitudinal database. This system makes it possible to analyze progression on a semester by semester basis and to follow the students from the time they first enrol in a university program until they obtain their diploma.

By merging these two sources of data, a wealth of information is obtained, which can be used to determine the relationship between the characteristics of a student when he enters university and his subsequent progression and thus derive explanatory factors. This merged database is the basis for the results detailed below.

Processing of Data

Let us first specify what is meant by "progression analysis". This is a sophisticated analysis by which we can study the detailed progression of a student, semester by semester, from the time he enters the course program until he leaves. After a given period of observation (for instance, five years in the case of a bachelor's degree), the analysis gives us the student's final status, that is, whether he has obtained a diploma (whether in his initial course program or in another program), if he is still registered in his program or in another one (transfer to another program along the way), or if he left his institution before obtaining a diploma. The outcome of this analysis has been saved in a variable forming part of the merged database used for the project.

A progression analysis was prepared for all students who responded to the ICOPE survey in fall 1993 and fall 1994 and the results were merged with the survey data. However, to date we have been unable to do the update required to integrate more recent ICOPE data for more than two of the establishments in the Université du Québec system surveyed in the fall of 1996, namely the Université du Québec à Rimouski and the Université du Québec à Trois-Rivières. Since we found it essential to use as recent data as possible for this project, it has been decided to limit the progression analyses to these two establishments.

The Université du Québec's situation is somewhat atypical in that it attracts many part-time students, a large number of whom are registered in one-year certificate programs (30 credits). Accordingly, the progression analyses were limited to three-year bachelor's programs (90 credits) to obtain a universal reference point. Another special characteristic of the Université du Québec system is that it does not have a faculty of medicine. A breakdown of the students by student category and field of study will, among other things, be presented in the following section to illustrate the particular profile of the students in the Université du Québec system.

Student Profile

Before taking a specific look at young students from a low socio-economic background, it is important to describe the basic characteristics of the students in the Université du Québec system. According to the data from the 1996-1997 ICOPE survey, to which over 6,000 students responded, 54% of the student body in the Université du Québec system are part-time students, a higher percentage than in other Quebec universities. Women represent 70% of the population, students under 25 years of age represent 48%, first-generation entrants represent 72%, and students from a low socio-economic background make up 37% (as opposed to 35% of students from a middle socio-economic background and 28% from a high socio-economic background).

Table 2 clearly shows that, compared to students with high socio-economic status, students with low socio-economic status have a greater tendency to study on a part-

time basis and a higher proportion of them are first-generation entrants. Meanwhile, 60% of students from a low socio-economic background study on a part-time basis compared to a figure of 44% for students from a high socio-economic background. However, although 90% of students from a low socio-economic background are first-generation, the proportion is only 34% for students from a high socio-economic background. Students from a low socio-economic background are also older, on average, than those in the other categories. Indeed there are only 39% of students in the under-25 age category in this group compared to 61% in the more affluent group. Socio-economic origin is therefore a variable which very definitely distinguishes the type of student who attends the Université du Québec.

Table 2
Proportion of part-time, first-generation and young students according to socio-economic status

Students	Socio-Economic Status			
	Low	Middle	High	Combined
Part-time	60%	56%	44%	54%
First-generation	90%	84%	34%	72%
Under 25 years of age	39%	47%	61%	48%

Source: 1996-1997 ICOPE Survey, Université du Québec.

Table 3
Breakdown of students according to field of study and socio-economic status

Field of Study	Socio-Economic Status			
	Low	Middle	High	Total
Health Sciences ^(a)	46%	33%	21%	100%
Pure Science	26%	39%	35%	100%
Applied Science	31%	33%	36%	100%
Social Sciences	38%	33%	29%	100%
Arts	38%	34%	28%	100%
Education	34%	35%	31%	100%
Administration	39%	36%	25%	100%
Fine Arts	36%	38%	26%	100%
All students combined	37%	35%	28%	100%

Source: 1996-1997 ICOPE Survey, Université du Québec.

(a) The Université du Québec does not have a Faculty of Medicine.

Looking at the situation of students in each field of study (see Table 3) it is apparent that students with low socio-economic status represent, in most of the academic fields, a higher proportion than students from the more affluent categories, and their numbers are especially significant in health sciences, fine arts and administration. These discrepancies can be partially explained by a greater number of women who,

all too frequently, come from a low-income environment. The case of health sciences is especially interesting since the percentages go from single- to double-digits between the high and low socio-economic groups. Since there is no faculty of medicine, nursing science draws the most students in health sciences, with close to 67% of the clientele, with women being the outstanding majority. Conversely, students from the low socio-economic group are definitely less represented in pure science, where men are more preponderant.

We will now focus on young students under the age of 25 from a working class background, which is the exploratory framework for the data suggested by the organizers of this colloquium. Table 4 shows the proportion of these students registered in a bachelor's or certificate program in the Université du Québec system. It should be specified that certificate programs represent a way to get into "Second-Chance University" and that a person can obtain a bachelor's degree by combining three certificates. This phenomenon is seen quite often at the Télé-Université (a distance learning establishment) which essentially attracts older students and first-generation entrants. In 1993-1994, 68% of the students in the low socio-economic group were registering in a bachelor's program and 23% in a certificate program. Comparing these data to data on students of the same age but with high socio-economic status, it can be seen that the proportion of less affluent students in the bachelor's program is lower, while in the certificate program it is higher. Looking at how the situation has evolved over the years, the data from 1996-1997 show an identical proportion of students of low and high status in the bachelor's programs. One might think that the gap between the two categories of students would have narrowed over the years, but that is not the case. Examining the other program categories, it is apparent that there is a higher proportion of students from an affluent background than from a low socio-economic background who registered in post-graduate programs (1% more in first-level doctoral programs and 3% more in master's programs).

Table 4
Proportion of students registered in bachelor's and certificate programs in the under-25 age group

Students Under 25	1993-1994	1996-1997
Low socio-economic background		
Bachelor's	68%	67%
Certificate	23%	20%
High socio-economic background		
Bachelor's	72%	67%
Certificate	15%	14%
All students combined		
Bachelor's	70%	68%
Certificate	19%	17%

Source: 1993-1994 and 1996-1997 ICOPE Surveys, Université du Québec.

As appears from Table 5, in 1993-1994, youth from a low socio-economic background had a greater tendency to register for part-time courses than the higher status students. It seems that three years later this was no longer the case—although they may have registered voluntarily in programs at a less prestigious level, nevertheless they were attending full-time just as frequently as students from a more affluent background.

Table 5
Proportion of part-time students in the under-25 age group

Students Under 25	1993-1994	1996-1997
Low socio-economic status	24%	23%
High socio-economic status	15%	22%
All students combined	20%	23%

Source: 1993-1994 and 1996-1997 ICOPE Surveys, Université du Québec.

On studying the level of schooling achieved by their parents (refer to Table 6), one finds, however, that there are significant gaps between the students from the two social categories. There are definitely more youth from the working class than their more affluent peers who are first-generation entrants, and this significant gap has persisted over the years.

Table 6
Proportion of first-generation students in the under-25 age group

Students Under 25	1993-1994	1996-1997
Low socio-economic status	89%	85%
High socio-economic status	32%	28%
All students combined	65%	62%

Source: 1993-1994 and 1996-1997 ICOPE Surveys, Université du Québec.

Progression of Students

Progression analyses on new students under 25 years of age registered in a three-year bachelor's program were developed based on socio-economic status. The student cohorts from fall 1993 and fall 1996 were followed for five years, namely until the fall of 1998 and 2001 respectively. The results of these analyses are reported in Table 7. Our analyses show that youth from a low-income background have a higher drop-out rate and, consequently, a lower rate of graduation than their more affluent peers. Indeed, 21% of youth with low socio-economic status who had started on a bachelor's degree in fall 1996 left their institution without a diploma, versus only 15% of the students with high socio-economic status. It was found that 74% of youth with low socio-economic status had obtained a bachelor's degree in fall 2001, while this percentage is 78% among youth with high socio-economic status. Similar trends were noted in the fall 1993 cohort.

Table 7
Perseverance of students under 25 taking a three-year bachelor's program (90 credits)

	New Registrants in Fall 1993 Followed for 5 Years (Fall 1998)			
Socio-Economic Status	Dropped out	Active	Graduated	N
Low				
1st-generation students	17 %	7 %	76 %	284
Other students	21 %	0 %	79 %	33
All students combined	17 %	6 %	77 %	328
Middle				
1st-generation students	16 %	3 %	81 %	299
Other students	19 %	1 %	80 %	69
All students combined	17 %	3 %	80 %	381
High				
1st-generation students	19 %	6 %	75 %	130
Other students	14 %	4 %	82 %	230
All students combined	15 %	5 %	80 %	418
	New Registrants in Fall 1996 Followed for 5 Years (Fall 2001)			
Socio-Economic Status	Dropped out	Active	Graduated	N
Low				
1st-generation students	22 %	4 %	74 %	181
Other students	13 %	6 %	81 %	31
All students combined	21 %	5 %	74 %	213
Middle				
1st-generation students	17 %	4 %	79 %	205
Other students	12 %	0 %	88 %	43
All students combined	16 %	4 %	80 %	259
High				
1st-generation students	18 %	3 %	79 %	72
Other students	15 %	8 %	77 %	184
All students combined	15 %	7 %	78 %	258

Sources: 1993-1994 and 1996-1997 ICOPE Surveys, Université du Québec à Rimouski and Université du Québec à Trois-Rivières.

Student cohort follow-up system, Université du Québec.

Note: The last column provides the size of the samples associated with each category of student. The aggregate of the sample sizes of 1st generation students and those who are not 1st generation (other students) may differ from the total due to some missing values.

Table 7 also makes a distinction between the results based on whether or not the student is first-generation. Note, however, that some of the statistics are based on very low numbers (shaded cells), which calls on us to be prudent in interpreting the data. This issue relates more particularly to the category in which we are interested, namely youth from a low-income background. Despite this data limitation, it is found

nevertheless that a higher percentage of young first-generation students tend to leave their institution without obtaining a diploma compared to the other students under the age of 25. Indeed, the most recent ICOPE data suggest that for each socio-economic group studied, there is a noticeable discrepancy in the percentages of first-generation students who drop out versus the other students, and also that the discrepancy is more pronounced among students from a low socio-economic background than among those of high socio-economic status.

Conclusion

This brief overview of the characteristics of the student body in the Université du Québec system has allowed us to illustrate how the university accomplishes its mission to provide greater access to higher education. Indeed, the students reached by the Université du Québec are those who were not necessarily reached by the traditional universities before the Université du Québec was founded. The result is that today, the Université du Québec has 70% women in its undergraduate programs, 52% students over the age of 25, 72% first-generation entrants and 37% students from a low socio-economic background. The latter two statistics are available solely thanks to the ICOPE surveys which collect the characteristics of the students when they enter university. By matching these data with the data from the Student Cohort Follow-up System, it is also possible to evaluate the tendency for these students to obtain a diploma.

Our exploration of the characteristics of our students when they enter university has also helped us understand to what point students differ depending on whether their socio-economic background is low or high. Accordingly, 44% of students in the high socio-economic group are registered as part-time, with 34% of them being first-generation and 61% under the age of 25, while 60% of students in the low socio-economic group are registered as part-time, with 90% of them being first-generation and 39% under the age of 25.

Finally, looking at the specific characteristics of the students in the under-25 group and comparing them on the basis of their high or low socio-economic status, we find that the percentages studying full-time are comparable in both groups. However, they can be differentiated very clearly based on two characteristics. On the one hand, students from a low socio-economic background are more likely to be first generation entrants, i.e., 85% compared to 28% of those from a high socio-economic background. On the other hand, students from a low socio-economic background drop out in greater numbers, i.e., 21% versus 15% of those from a high socio-economic background.

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