Academic Pathways among First-Generation Students in CEGEPs

Summary of research note 8

The concept of a first-generation student (FGS) had been used in an administrative sense before being used in research. Originally (towards the end of the 1970's), the notion of FGS was a category instituted by the administrators of the TRIO program, a program created by the federal government of the U.S. to promote academic achievement. The concept of FGS has been used progressively in the scientific literature as a factor to explain the differences in access and in persistence.

There are now a number of studies that analyse the academic experience of FGSs in community colleges in the U.S., in terms of both access and persistence. Some studies have shown that FGSs at community colleges are more likely to be women, to be older than the average student, to be working full-time and to be responsible for others. Other studies indicate that FGSs are more likely to have a low income and financial difficulties, to be Latin-American/Hispanic, to have had a lower grade average in high school, to be the principal wage earner in their household and to have difficulty understanding English.

The Canadian literature on access to and persistence in higher education includes few studies presenting results that explicitly use the concept of FGS, and there are even fewer such studies dealing with college-level students. However, works that have considered the effect of parent's educational level are more numerous. For example, some studies sponsored by Statistics Canada compare groups of students whose parents do not have a diploma from a post-secondary institution with those whose parents have such a degree. During the last few years, several research papers published by the Projet Transitions have used the concept of FGS to describe students in Canadian colleges and universities.

The objective of this note is to examine the access and especially the persistence of first-generation students (FGSs) enrolled in colleges.

We first examine certain aspects of access to college. The analysis is based on Statistics Canada's Youth in Transition Survey (YITS) data (cohort A). Two questions guide this analysis: When do FGSs arrive at college/CEGEP? What are the differences between the provinces?

We then look at another aspect, by analysing the progress of a group of first-generation students. More precisely, we develop a longitudinal qualitative analysis of the academic pathway of college students enrolled in technical or pre-university programs. The questions addressed are: What are the pathways of first-generation students? Are these different from those of non-FGSs? Our panel consist of 195 students at Quebec colleges (CEGEPs). We began to follow these technical and pre-university students at one-year intervals, at the beginning of the fall 2000 and 2001 terms, at the time of their first enrolment in their programs. These students were enrolled in six colleges (five CEGEPs and one private college) in two urban regions in Quebec. We met them at least two times (when then started

and when they left their program, if necessary, and at the end of their first year) and we also conducted a third and last interview with those who continued, at the end of their last term. All of these students participated in this study on a voluntary basis.

The questions addressed are: What are the pathways of first-generation students? Are these different from those of non-FGSs? In performing this analysis, we wish to examine the academic experience of college students, from their entry to the program to their exit. In doing so, we will shed light on the different aspects associated with students' continuing in or leaving their programs. This analysis completes the existing research by describing pathways that are the result of the interactions between systemic effects and individual biographies.

We understand academic pathway to include all of the decisions and events that affect the presence of students in an academic system, and, in this case, in a given training program. The pathways depend on the academic structure, but also on the choices of students as to their career goals, on their CEGEP experience right from the start, and on their life situation throughout their studies, which can fluctuate from one year to another.

Methodological considerations

Our analysis, as we have already emphasized, has both a qualitative as well as a quantitative aspect. This will help us to better define FGSs' access to college and their academic experience once there. The status of FG or non-FG students is determined by the highest level of education claimed by one or both parents. An FGS is therefore described as a student whose parents have no more than a high school education (the reference category). Post-secondary education that did not lead to a diploma (on the part of the parents) or the academic experience of siblings was not taken into account. The non-FGSs, for their part, are divided into two sub-groups. In the first, the non-FGS-collegial, at least one parent has a college degree, and in the other group, non-FGS-university, at least one parent has a university (bachelor's) degree. The relevance of using the highest degree achieved by one or the other of the parents has been confirmed by the International Study of Literacy. Also, the methodological choice to sub-divide the category of non-FGS is supported by several studies that have shown its relevance.

Quantitative data are from the nationwide Youth in Transition Survey (YITS). Administered by Human Resources and Social Development Canada and by Statistics Canada since 2000, this survey is longitudinal and based on a representative panel of youth, age 15 in 1999, who were then in school (this panel is named Cohort A in the jargon of this survey). Considering the question addressed here – the influence of FGS status on access to and perseverance in college –we use the data from the first four cycles of this survey.

The interviews from the RELÈVE study were framed in a manner that gave respondents leeway to express their experience in their own words. The five themes of the interview guide are:

- The initial experience: the courses, the professors, the fellow students and the institution itself, as perceived by the respondent;
- The choice of program and of college: the reasons and considerations cited by the respondent to justify their choice of program and of institution;
- Previous experience: how the respondent performed in high school or in a post-secondary study program other than the one he/she enrolled in at the time of the start of this study, paid work experiences or professional experiences;
- Extra-curricular activities: the pastimes, paid work and living situation of the respondent;
- The projects: The goals of the student in terms of education, career and short and long-term lifestyle.

Nation-wide results

The proportion of first-generation students in the student population varies from one province to another, reaching a high of 37 % in Prince Edward Island and in New Brunswick, to 17 % in British-Columbia. That is to say, throughout Canada, the majority of students come from families where at least one parent has a post-secondary degree, especially one from a college. It is the proportion of students from families with at least one parent with a university degree which is the lowest in all of

the provinces. Two provinces have the highest proportion of these students: Québec and British-Columbia, where respectively 31 % and 32 % of college students come from a family where the educational capital is considered to be high.

If the average is calculated excluding Quebec, the proportion of Canadian students choosing college as their first post-secondary program is 33%. As for the parents' educational capital, students from families with a higher level of academic capital are more likely to attend a university. Inversely, FGSs are more likely to enrol in colleges. The presence of students in colleges and universities follows the logic of social reproduction, which is a function of the parent's education. First-generation students are proportionally more numerous in colleges, while the non-FGSs are more numerous in the universities. In Québec, this logic does not apply, because of enrolment in college as a mandatory step towards university. However, this logic would still be respected in Québec, if the CEGEP technical programs are considered to be in the category of community colleges and the pre-university programs as part of the university category (Table 3.3). In addition, the presence of students from university families at colleges is higher in British Columbia (27 %) and in Alberta (31 %), two provinces that have introduced a first-phase of post-secondary education in their colleges in order to facilitate access to universities.

The RELÈVE study: academic pathways in colleges

Our analysis of pathways is based on the following four dimensions:

1. the transactions between the individual biographies and institutional structures;
2. the interaction between events and their significance;
3. the interaction between academic experience *stricto sensu* and extra-curricular experiences;
4. the insertion of the academic experience in a scheme of larger time frame allows us to take into account an individual's past, their social and cultural heritage, as well as their learning achievements. This also helps us be aware of the future, of goals and projects, which are the motivating elements for most students.

A first analysis brings us to differentiate the paths of being persistent from those of dropping out of a program (leaving without a degree). The first category comprises a variety of ways of living the student experience throughout one's studies, from requests for admission until obtaining a diploma, even up to the choice of a university program. Globally, we have determined nine pathways of persistence, which is to say, nine types of academic experiences which differ according to the relationship that students establish with the organisational and pedagogic structure of a college, by the emphasis they give to events, by the impact of their living conditions in general and by their integration of their past experiences and their projects. As for the dropouts (non-persistent students), six pathways that end in leaving a program without a degree were identified.

The names given to the different pathways are meant to describe their main features. The nine pathways of persistence are: the Pleasure route, the Rough road, the Race to excel, the Autonomous track, Taking one's time, Guided by the future, One small step at a time, Same route, different destination and The double path. The six pathways of leaving without a diploma are: the False start, the Collision, Going off the road, A fork in the road, the Planned exit, the Change of direction.

FGSs are found in almost all of these pathways but their concentration is very variable. They are proportionally more numerous in certain paths, including those that are more difficult, such as the *Rough road*, the *Race to excel* and the *Collision*. However, they are not present at all in two pathways which only contain a few students. In this sense, the range of possible paths is possibly less spread out than it is for the non-FGSs, which suggests that the academic experience takes less varied forms among FGSs.

From another angle, the lack of further strong differences between FGSs and non-FGSs is congruent with the American research on FGSs in community colleges, and agrees with the research on Quebec students indicating that the educational capital of parents is more a determinant for access than it is for academic experience.

In our sample, the proportion of persistent students after five years is 64 %, or almost two-thirds. The first difference appear: the persistence rate among the non-FGSs is slightly above (68 %) this average, while that of FGSs, comparatively lower, indicates that only a little more than half (55 %) of them had persisted.

The FGSs in our sample preferred technical programs to pre-university programs. The non-FGSs, however, were equally divided between the two sectors. The difference between the FGSs and the non-FGSs could be explained by two factors: 1) the FGSs achieve lower grades, which limits their access to the more selective pre-university programs; and 2) the FGSs have less aspirations to achieve a university education, which leads them to opt for a choice that is more immediate and which offers more of a "return" in the medium term, and so they choose a technical education.

When we take into account the grades students received in high school, we see interesting differences between FGSs and non-FGSs. Whereas among those students who have the lower (65-70 %) and the higher grades (85-90 %) there is almost no difference between FGSs and non-FGSs as to their persistence or to their likelihood of dropping out of their studies, among students whose (average) grades were between these two categories, the non-FGSs were twice as likely to have been persistent than the FGSs. One could arrive at the hypothesis that the more average students are the ones more susceptible to the effect of their parent's educational capital on their academic progress.

First of all, it is important to remark that the college experience occurs in different ways for many students. Some paths fall under a label of being easy, with pleasure and success. However, others are much more difficult. Finally, certain pathways can only be better understood when one can consider the motivations that are not strictly academic. This introduces a first source of differentiation for college-level students.

More than a third of our respondents did not have a degree at the end of our study: they dropped out of their program before getting their diploma, but they did not necessarily end their education. We now make a distinction between leaving a program and abandoning plans for completing a degree. We can see that several pathways lead students to drop out of their programs. The main factors are low or failing grades, a lack of intellectual and social integration (often in combination with the first factor) in their new institution and difficulties in balancing paid work and the pursuit of their studies.

Our analysis has identified the two most important axes for determining the differentiation of these pathways and their relative positioning. The first is the articulation between school and the other aspects of a student's life; the second is the weight of the different time frames.

Conclusion

In Canada, colleges have been an important factor in the democratization of access to higher education, especially in comparison to universities--28 % of young adults from the same FGS cohort will go to college, while only 15 % will go to university. In other words, for each FGS who enrols in university, two FGSs will enrol in a college program. At the same time, this is not to say that access is free of any social determinism. Thus, almost three out of ten young students are from families where the parents have never attended a post-secondary institution, while close to half (46 %) of all students come from families where at least one parent has pursued their PSE and a quarter are from families with some university experience.

In Quebec, even though FGSs can take the pre-university route in college, they are proportionally more numerous in the technical programs, while the situation is the reverse for students whose parents have university education. A technical degree appears to be the way to professional (even social) mobility for a sizeable proportion of FGSs. As for students coming from families with a higher educational capital, one could suppose that their choice of a technical program is part of a new educational path: they prefer to study in an area they have an affinity for and then continue their education on a university level rather than taking the usual pre-university track directly to university.

By comparing pathways, it is possible to determine five motives for action through which similarities or differences between pathways can be established: the pleasure of learning, the ordeals, becoming an adult, a professional perspective and the pressures of life outside of school.

Each pathway describes is a way to experience student life in a CEGEP, whether it is marked by persistence or by an exit, which is to say, a temporary or a permanent withdrawal. The presence of returning mature students also suggests that several of those who leave their studies only do so as a pause in their own individual education plan.

Persistence is not only associated with good experiences or ease in being successful at school. In many cases, it exists alongside high stress and difficulties large and small. The drivers behind the different pathways—and thus the factors that allow the pathways to be differentiated—can be of a very diverse nature; some are directly relevant to the academic sphere and others not. Non-persistence is also a multi-faceted experience. We find within it planned exits that cannot be associated with failure. Other exits actually lead to a revision of goals and a more profound reflection on career orientation. Still others show the stress and disappointment that can be associated with an exit or failure. These exits are not only for academic reasons—they are often linked to directions taken solely as a function of job prospects, or to the difficulties of balancing family, work and study responsibilities.

Since several of the causes linked to students leaving have no direct relation to the educational system, the solutions available to educational reformers are somewhat limited. However, making it easier to take classes part-time or in the evenings in CEGEPs could make it easier to maintain a family-work-study balance. One answer is to make part-time studies free, to create a more flexible school schedule and to plan for more evening classes.

Another means would be to ensure that the programs in place to promote student persistence are effective in reaching their targets and their goals. This means periodic evaluation of these programs. These evaluations should lead to the identification of the conditions conducive to the deployment of effective strategies for assisting students and preventing them from dropping out. At the same time, these programs and their evaluations should also contribute to a better understanding of the following paradox: despite the plethora of special programs for support and help that have been proposed by teaching establishments, it is difficult to find a significant improvement of the overall situation. For example, between 1995 and 2006, the proportion of young adults graduating with a DEC went from 38.2 % to 39.6 %. This was a small increase, but it has mostly been attributed to the growth of short programs (Attestations of college studies or Attestations of college training). This "stable" result leads to three questions: Do the measures put in place reach the targeted clientele and are they the ones who benefit the most? Are the measures effective? Is there a growth in access to college by 'weaker' students that neutralizes the positive effect of the measures put in place?

Reference :

Pierre Doray, Bayero Diallo, Frédéric Dufresne, Annie Robitaille, Myriam Villeneuve, Amélie Groleau (2011). *Academic Pathways among First-Generation Students in CEGEPs* (Projet Transitions, Research Note 8). Montréal : Centre interuniversitaire de recherche sur la science et la technologie (CIRST).

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