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Note 5

THE EVOLUTION OF EDUCATIONAL ASPIRATIONS

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Research Note 5

The Evolution of Educational Aspirations

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Introduction

The Importance of Analyzing Educational Aspirations in order to Understand Educational Pathways

Aspirations are a widely studied topic both in psychology and sociology. They are the subject of theoretical discussions and are regularly used in empirical research. The volume of work done with regard to educational experience and orientation reflects this interest. Numerous studies that have used the concept of aspirations, especially educational aspirations, emphasize its importance because aspirations are one of the best predictors of school success or of dropping out (Buriel and Cardoza, 1988; Rumberger, 1995). Because aspirations are closely associated with individual educational plans (Haller and Virkler, 1993), studying them also allows us to understand the educational and professional achievements of young people, both in the short and long term (Beret, 1986). From a more social perspective, examining educational aspirations can allow us to observe the transformation of the educational plans of youth cohorts (Becker, 1993). In this sense, aspirations are an important indicator of the mindset of youth and their vision of the future (Laflamme, 1996).

Aspirations are an integral part of young people's academic and educational pathways and are a major factor in the understanding of access to and persistence in studies. Moreover, other research has sought to identify the factors—psychosocial, socio-cultural or socio-economic—that will allow us to better understand the genesis of aspirations. Most of this research focuses on the aspirations expressed at a given moment in the lives of individuals. This means that little research has focused on the evolution of these aspirations over time. But the objective of the present research is, in fact, to gain an understanding of the evolution of educational

aspirations over time. We would like to determine whether academic performance at school and the nature of school experience in high school (falling behind, grade-repeating, etc.) has an effect on this evolution. This also means weighing social and cultural factors in the evolution of aspirations. It will then be possible for us to better understand the relative effect of the social background that characterize all social actors, as well as the effect of the specificity of the high school education received on the evolution of aspirations. Our hypothesis is that the influence of social class on the evolution of educational aspirations tends to diminish as the student progresses through his or her educational pathway, with the school experience gradually becoming more and more of a predominant factor in the development of educational and career aspirations.

The Youth in Transition Survey (YITS) collected data on a biennial basis from a group of young Canadians aged 15 at the start of the survey. It began in 2000 with a first cycle of data collection; three subsequent cycles were held in 2002, 2004 and 2006. The database used to complete this research encompassed 18,414 respondents in cycle 4. Thus, the data from this survey offered the advantage of a longitudinal perspective on a large number of respondents. At each of the survey's cycles, young people were asked about their academic and professional experiences, as well as their personal characteristics. The survey also explored the various factors that may influence educational aspirations, such as family background or school and extracurricular activities.

In this research note, we explore the relationship between educational aspirations, socio-cultural and socio-economic factors, psychosocial variables and previous school experience to deepen our

understanding of access to and persistence in postsecondary education. These analyses will attempt to answer the following questions:

1. What is the influence of social and cultural affiliation on educational aspirations?
2. Over the course of students' educational pathways, can the school experience mitigate the primary effect of social class on the development of educational aspirations?
3. Over the course of students' years in high school, can the school experience influence the development of self-confidence and self-esteem, and thus contribute to reshaping educational aspirations?

This report is divided into three sections. To establish the main theoretical indicators, the first section presents a synthesis of previous studies on educational and career aspirations. The second section focuses on the methodology: it describes the data, variables and the analysis model used. The third section presents the results obtained.

I. Theoretical Considerations

I.1 The Concept of Aspirations

Chombart De Lauwe (1970, 1971, 1976) defines an aspiration as a psychosocial process by which a subject (individual or group) is at once attracted to and pushed toward a goal, whether close or distant. This goal can refer to a material element in the environment or distant ideals. The aspiration takes the form of an image, a representation or a symbol to help define and guide the plans developed toward a goal.

Aspirations are also associated with the expression of skills and interests (personal or collective) (Anctil, 2006) that take shape according to environmental pressures, such as job market conditions (Felouzis et al., 1997), the school experience (Rocher, 1981) and the socio-economic environment (Bédard, Béland, Bélanger, Roberge, Rocher, 1981; Chombart De Lauwe, 1970, 1971, 1976). The aspiration is maintained and is realized through the interactions between the student and his or her school environment, his or her representation of the employment sought and the socio-cultural environment, which demonstrates that an aspiration always has a social aspect as well as a personal dimension (Chombart De Lauwe, 1976).

I.1.1. Educational Aspirations

The work conducted in Québec within the framework of the ASOPE¹ survey clarifies this first definition by associating it with the concept of need. The aspiration gives meaning to a future project that will thereby serve as a basis for action. "The aspiration is, in this sense, a predisposition, an orientation toward action" (Bédard, Béland, Bélanger, Roberge, Rocher, 1981: 47). It takes the form of a symbolic expression of a "need" that the student feels. The interaction between need and action form the basis of the aspiration, that is, it is the result of their

interrelationship: ["The actor already finds a certain anticipated satisfaction of his or her need in the development, maintenance and explanation of the future state or event that is the object of his or her aspiration. But at the same time, the aspiration maintains an image, a hope, which creates a constant reliving of the need"] (Bédard, Béland, Bélanger, Roberge, Rocher, 1981: 47).

Aspirations can thus be defined as the educational plans that young people formulate more or less explicitly, which motivate them in terms of the orientation and pursuit of their studies. From there, the student who feels the need to get more formal education, either to ensure better professional preparation or to develop their skills or personality, can translate this "intent" or "desire" into aspirations.

The student thus begins his or her quest for satisfaction with an academic or professional project that will serve as leverage for action, because the aspiration will serve to predispose or orient the student toward action (Bédard, Béland, Bélanger, Roberge, Rocher, 1981). In other words, the educational aspiration influences the academic achievement of a young student (Gaudreault et al., 2004). It underlies the effort invested by the actor to escape the constraints imposed by the social environment—constraints of which the student is not always conscious—in order to realize his or her plans (Anctil, 2006). From this perspective, the aspiration can be regarded as a desire applied to a goal.

Aspirations are wishes, desires, expectations, future plans—even the expression of a need—that allow an individual to set goals. In an academic context, aspirations are at the source of the pursuit of secondary and post-secondary studies. They are rooted in students' experience of school and in the social experience of each individual. They often take different forms according to the state of the job

1 The acronym for *Aspirations scolaires et orientations professionnelles des étudiants* ["Educational Aspirations and Professional Orientations of Students"].

market, the student's personal experience and his or her socio-cultural situation. Teachman and Paasch (1998) report that while there are a variety of factors that may influence the achievement of educational goals, educational aspirations play a leading role.

Educational aspirations are often associated with professional aspirations. In fact, individuals usually continue their studies in a particular field in the hope of a career later on. Moreover, many researchers include both academic and professional aspirations in their research (Wall, Covell and Macintyre, 1999; Mello, 2008). Other studies corroborate the existence of this link (Gaudreault et al., 2004; Rojweski and Kim, 2003; Rojweski and Yang, 1997).

1.1.2. Realistic Aspirations and Idealistic Aspirations

Referring to the important works of the ASOPE² survey and the ÉCOBES³ group (Perron, Gaudreault, Veillette and Richard, 1999), it is possible to distinguish two types of aspirations: "idealistic" and "realistic" aspirations. They represent two visions of the future that may sometimes merge into one. From the outset, it is important to note that aspirations are rooted in perception: educational and professional aspirations as expressed by the respondents are not necessarily a reliable indicator of their potential for achievement. Respondents may overestimate or underestimate their abilities as well as the obstacles to achieving their aspirations.

The idealistic aspiration expresses a wish and corresponds to what a student would like to do or see happen. It does not take into account the possible obstacles, constraints and pitfalls that may hamper the realization of the plan. The realistic aspiration is differentiated from the idealist aspiration in that there is awareness and consideration of personal and structural constraints that may hinder its achievement.

1.2 The Evolution of Aspirations

Several factors seem to play an important role in the formation or development of aspirations (see section 1.3). These include socio-economic status, academic performance, the influence of someone close, family structure, the type of interaction with parents, as well as differences related to gender, ethnicity and social class (Goyette, 2008). The support of family and peers, according to Wall (1999), play an important role in the development of educational and career aspirations. According to Marjoribanks (2002), aspirations will also be related to the school and family environment, and the level of identification with the mother (Barry and Wentzel, 2006). Finally, educational aspirations will be influenced by the parents' level of education (Perron et al., 1999, Wilson and Wilson, 1982). Quite often, these factors are also at the root of changes in aspirations, causing a bifurcation in the educational pathways, sometimes leading to the pursuit of unforeseen or unexpected trajectories. To better understand the origin of these changes of course, certain researchers have focused on studying the evolution of aspirations over time.

For example, Rojewski and Yang (1997), sought to discover if professional aspirations in early adolescence were predictive of those in late adolescence. A sample of young people in the National Education Longitudinal Study (NELS) of 1988 was interviewed at three different times over the course of adolescence (early, middle, late). The results indicate that the career aspirations of adolescents remained relatively stable over the four years of the study. Moreover, aspirations in early adolescence are fairly good predictors of subsequent aspirations. Helwig, in his works of 2003 and 2008, also reported results confirming the stability of professional aspirations. He used Holland's RIASEC typology (1997) to describe each of the 208 participants interviewed every two years over ten years. At each of the six data collections, participants were categorized according to Holland's codes

2 As cited above, the acronym for *Aspirations scolaires et orientations professionnelles des étudiants*.

3 The acronym for *Étude des conditions de vie et des besoins de la population* ["Study of the Living Conditions and Needs of the Population"].

(Realistic, Investigative, Artistic, Social, Enterprising or Conventional) in terms of their reported career aspirations. The main results of this study showed that expectations remained relatively stable throughout life. In fact, 18% of students had exactly the same code five times out of six. More specifically, it appears that Holland's codes reported in Grade 10 of high school are particularly similar to those reported in Grade 12.

Conversely, other research points to the instability of aspirations. These may change continuously, or may increase or decrease steadily or abruptly. The pattern most commonly observed, however, is a decrease in the level of aspirations. Gottfredsson (1996) developed the theory of compromise to explain this phenomenon. According to this theory, when the adolescent realizes that his or her initial aspirations (often idealistic) are unrealistic or unattainable given the context or personal constraints, he or she feels compelled to adjust them to make them feasible. Quite often, this results in a decrease in the level of aspirations. This phenomenon is known by the expression "lost talent". Trusty and Colvin-Harris (1999) report that, in their sample of gifted students, 8% of girls and 10% of boys decreased their level of aspirations between Grade 8 and the two years following secondary school. Cook et al. (1996) studied the phenomenon among young Americans in Grade 4. They noted, among other things, that 36% of young African-American boys wanted to become professional athletes; but only 12% of them expected to become athletes. Along the same line of thought, Helwig (2001) studied a sample of Grade 2 elementary school students during the first cycle of the survey. He determined that 40% of boys and 20% of girls reported rather fanciful career aspirations until the 8th grade. In Grade 2, most children in the sample reported wanting to become a professional athlete, singer, musician or model. When interviewed in high school, the vast majority of these same students reported more realistic aspirations. Armstrong and Crombie (2000) also studied these changes in the nature of aspirations in a longitudinal study and determined that the discrepancy between students' aspirations (idealistic) and their real expectations

decreased with time. Finally, although most researchers seem to agree that aspirations stabilize over time, Rindfuss (1999) studied a sample of students at the end of high school until age 30. Contrary to what one would expect, these results demonstrate significant instability in professional aspirations, even beyond adolescence.

What factors could explain the changes in aspirations over the course of a lifetime? According to Lent, Hackett and Brown's Social Cognitive Career Theory (SCCT) (1994), personal and contextual variables shape professional aspirations. In addition, Gottfredson's theory of compromise (1996) suggests that aspirations are formed when expectations confront reality. Rojewski et al. (1997), among others, have determined that socio-economic status was the variable most strongly related to lower aspirations. According to these researchers, students from families with lower incomes do not have the resources necessary to achieve their initial aspirations and, therefore, alter their aspirations according to constraints (real or perceived). According to Mortimer (2002), changes in aspirations are linked to different factors (important events, work experience, etc.) from one person to another, and these factors may encourage or force a person to reorient his or her goals. For Shapka (2006), changes in expectations are also related to academic preparation and courses taken. Indeed, if a student does not pass the math courses required to enter into the program of choice, the student will have no choice but to modify his or her aspirations. In general, it appears that the factors that contribute to shaping aspirations are also at the root of changes in aspirations over time.

In sum, this first overview suggests that professional aspirations seem relatively stable from adolescence. They become progressively more stable and, as people get to know themselves, they recognize their strengths and weaknesses and gain professional and academic experience (Helwig, 2001; Rindfuss, 1999; Mortimer, 2002). Indeed, changes do occur. These changes relate to school experience or extracurricular factors that introduce constraints into the range of possible choices.

1.3 Factors Influencing

Educational Aspirations

From the outset, it seems pertinent to remember that the purpose of our research is to understand better the effect of different factors on the evolution of educational aspirations. In other words, an aspiration is considered a "dependent variable". The shaping of an individual's aspirations and their formulation may fluctuate depending on various factors.

As these factors are numerous, we have grouped them into three categories. The first includes "socio-cultural factors", that is, factors that refer to individuals' cultural capital, which may be their overall intellectual abilities, their economic and material resources, as well as life conditions that may influence educational aspirations. The second category, "psychosocial factors", groups together factors that relate to the link between affective or emotional responses and certain social situations or, more precisely, with educational aspirations. The third combines the various factors concerning the influence of the "school experience" on aspirations.

1.3.1 The Influence of Socio-cultural Factors

The research consulted emphasizes the influence of various social factors on educational aspirations: the size of the community (Herting, Wahk, Blackhurst, 2000), the language spoken (ASOPE 1981), the individual's gender (Ojeda and Flores, 2008), socio-economic status and the parents' level of education (Ojeda and Flores, 2008; Tsoukalas 1997, Benincasa 1998), as well as family structure (Garg, Melanson and Levin, 2007).

a) Gender

A consensus becomes apparent in the corpus of work analyzed regarding the effect of an individual's gender on aspirations (Covell, 2009; HRSDC, 2004; Wahk et al., 2000; Marjoribanks, 2005; Garg, Melanson and Levin, 2007; Andres and Looker, 2001; Anisef et al., 2001; Perron et al., 1999; Butlin, 1999; Lowe, Krahn and Bowlby, 1997; Sanchez, Colon and Esparza, 2004; Stevens and Putchell,

1992). Females are associated with aspirations for university studies, and the relationship between gender and the level of aspirations becomes stronger with age. According to Human Resources and Skills Development Canada (2004), girls, who tend to do better in school and devote more time to their school work than boys, formulate higher educational aspirations than boys. Expressed in term of years of schooling, this difference means that girls are planning studies that are longer by half a year. Thus, a greater proportion of girls (43.7% versus 34.9%) aspired to obtain a university degree. On the other hand, according to the authors consulted, boys were more likely than girls to enrol in vocational and technical training at the high school or college level.

b) Family Structure

Garg, Melanson and Levin (2007), along with Marjoribanks (2005) explain that children from single parent families tend to express lower educational aspirations. These educational aspirations would be the result of fewer material resources. Conversely, according to HRSDC (2004), "the educational aspirations of children from single parent families are barely distinguishable from those of children with two parents [sic]. This means that neither lesser financial resources nor the more modest contributions in social capital (and other important resources with regard to education) have a moderating effect on the aspirations of children living in such a family structure" (p. iii).

c) Socio-economic Status

According to Covell (2009), HRSDC (2004), Wahk et al. (2000) and Marjoribanks (2005), children from affluent families would see postsecondary education as an attainable objective, while those from more modest backgrounds do not seem to generally aspire to university studies. Parents of families with low socio-economic status are less likely to hold a postsecondary degree; they are less well equipped to support the academic success of their children in higher education. Also, in relation to socio-economic

status, Barr-Telford, Cartwright, Prasil and Shimmons (2003) indicate that one third of young people who interrupted their studies without graduating in 2002 reportedly did so because of financial hardship. The weight of debt on postsecondary education had a “cooling-out effect” on aspirations and led to the questioning of the feasibility of continuing studies (Canadian Council on Learning, 2006). In the most disadvantaged milieus, debt may represent a disincentive to the educational aspirations of youth (Canadian Council on Learning, 2006).

The socio-economic status of parents was identified as the most important factor of differentiation between the educational aspirations of young people in remote areas and those of urban youth (Adelman, 2002; Ali and McWhirter, 2006; Cobb et al., 1989; Hansen and McIntire, 1989; Kirby and Conlon, 2005). According to Haller and Virkler (1993), about 50% of this difference is related to the socio-economic status of parents. In his study of students’ desire to pursue postsecondary education immediately after graduation from high school, Adelman (2002) notes that these expectations vary greatly depending on family income. Similarly, the greater the household assets, the greater the educational aspirations of youth (HRSDC, 2004). According to Cartwright and Allen (2003), students from affluent socio-economic milieus have more cultural assets (works of classical literature, art books, etc.) and educational resources (dictionaries, desks, textbooks, calculators).

d) Region and Size of Community

Young people from rural areas have lower educational aspirations than their counterparts living in urban areas (Adelman, 2002; Andres, Anisef, Krahn, Looker and Thiessen, 1999; Andres and Looker, 2001; Arnold et al., 2005; Cobb, McIntire and Pratt, 1989; Haller and Virkler, 1993; Hu, 2003; Looker and Dwyer, 1998; McCracken and Barnicas, 1991). For these authors, students attending school in a small community have lower aspirations and are significantly less likely to attend university. After statistically controlling for the role of gender,

parents’ level of education and the curriculum followed in high school, Andres and Looker (2001) underscore that living in a rural community in Canada diminishes the educational aspirations of youth. Even in a culturally homogeneous region, namely the Saguenay-Lac-Saint-Jean, students from rural areas (municipality of less than 1,200 inhabitants) have lower realistic aspirations than urban dwellers (Perron and Veillette, 2008; Perron et al., 2000).

The influence of rurality on educational aspirations is more prevalent in the case of postsecondary studies (Howley, 2006; Kirby and Conlon, 2005). According to Howley, a lower proportion of rural youth claim to aspire to higher education than of urban youth, even if variables such as ethnicity, income and parents’ education level are controlled in the analysis. Youth from rural areas are also reluctant to pursue graduate and postgraduate level studies.

By studying the Canadian population, Frenette (2003), along with Andres and Looker (2001), associate the effect of rurality with the distance to travel to study at a university. Moving becomes an obstacle to aspirations for postsecondary studies. Similarly, Kirkpatrick Johnson et al. (2005) indicate that, once socio-economic context, social relationships and the characteristics of adolescents are statistically controlled, men are more likely than women to pursue postsecondary education at a greater distance from the family home. The prevalence of traditional family roles in rural areas, as well as the closer ties that women tend to have with their families and communities could explain this difference (Elder et al., 1996; Mandell and Crysedale, 1993).

In another vein, research by Covell (2009) highlights the importance of community size, and the social support it provides, with the formulation of the educational aspirations of young people. For the author, the smaller the community, the less likely young people are to aspire to attending university. This link is explained, in particular, by the sense of affiliation to the community (parents and friends). Ryan, Stiller and Lynch (1994) report that young people who say they feel a strong sense

of attachment to their parents and teachers—that is, a strong sense of belonging to their community—formulate lower educational aspirations.

Haller and Virkler (1993), as well as Hektner (1995), indicate that the difference between the aspirations of young people in remote areas and those of young people in urban areas is due in large part to the local job market: “Students aspire to professions that they know and can imagine” (Litalien, 2008). In rural areas, they are exposed to a narrower range of employment options (Andres and Looker, 2001).

In addition, young people who wish to remain in their community demonstrate lower educational aspirations (Andres and Looker, 2001; Perron et al., 2000). Indeed, both Hektner (1995) and Perron and his colleagues (2000) have shown that some young people who are strongly attached to the lifestyle of their rural community will limit their educational aspirations in order remain in that environment.

e) Part-Time Employment

For the Stinebrickners (2000), part-time work is a determining factor in the personal, educational and social life of a student because paid employment is a means through which young people are socialized, which plays an important factor in identity construction and the development of a work ethic. The authors’ research therefore suggests that part-time work does not have solely negative effects on educational aspirations. Even when the analysis differentiates the type of work performed by the young person, its seasonal characteristics, intensity and the socio-economic and family background that led to the decision to work, one can conclude that part-time employment will not have a negative impact on educational aspirations; in fact, those who work show even more ambitious educational aspirations than those who do not work.

1.3.2 Psychosocial Factors

Psychosocial factors form part of a chain of influence

that affects aspirations. Academic performance results in social reactions (e.g. lack of interest, encouragement or other signs of support) against which the student builds his or her perceptions of the opportunities that are available in terms of academic and vocational choices (Covell, 2009).

a) The Perception of Self-Efficacy

For Deci and Ryan (1985), the perception of self-efficacy is a fundamental psychological need that allows one to successfully meet challenges. Because individuals will select and undertake activities in which they deem themselves capable of succeeding, and avoid activities in which they expect to fail, life choices depend upon the perception of self-efficacy (Bandura, 1993). Thus, it is reasonable to expect that the decision to pursue postsecondary education will be significantly influenced by the perception of self-efficacy in a given field of education. Ali and McWhirter (2006) argue that contemporary theories of career development, particularly the Social Cognitive Career Theory, suggest that the perception of self-efficacy plays an important role in the process of forming postsecondary plans and in their implementation. Moreover, these authors report that the perception of self-efficacy in school and expectations related to academic achievement are related to aspirations for postsecondary education. For example, young people wishing to enter the labour market after obtaining a high school diploma were less confident in their abilities and held lower expectations than those who planned to pursue their studies (Ali and McWhirter, 2006).

After analyzing data from two samples of young Americans, Johnson (2000) concluded that correlations between measures of self-efficacy and aspirations for college show that the perception of self-efficacy plays an important role in the process of choosing college-levels studies. In Canada, it has also been reported that young people’s confidence in their ability to succeed academically is closely tied to their aspirations (HRSDC, 2004). Moreover, among rural youth, Ali and Saunders (2006) show

that the perception of self-efficacy and parental support predict aspirations for college, even when the type of job held by parents and their level education are statistically controlled. However, these authors do not use an urban sample that would allow the comparison of differences between areas of residence. In their model (again, without a comparison group), Hardres and Reeve (2003) showed that, among high school students living in remote areas, the perception of self-efficacy and self-determination are the internal motivational resources that support their commitment to and persistence in school. As far as we know, no study compares the feeling of academic competence of youth from remote areas to that of urban youth.

b) The Sense of Belonging at School

Students develop a sense of belonging to their school when they trust that their teachers and administrators are concerned with each student and are interested in the quality of their learning (Blum and Libbey, 2004). A strong sense of belonging, that is, the feeling of being accepted and supported in school, improves the psychosocial and academic functioning of the student (Galliher, Rostosky, and Hughes, 2004). Similarly, several studies show that students' sense of belonging to their school is associated with better social, psychological and behavioral adjustment, as well as with higher levels of motivation and achievement (Anderman, 2002; Battistich, Solomon, Watson and Schaps, 1995; Goodenow, 1993; Hawkins, Doueck and Lishner, 1988; Najaka, 2001; Osterman, 2000; Sanchez, Colon and Esparza, 2004). Conversely, "the greater the feelings of indifference and/or detachment, the lower the aspirations" (Litalien, 2008).

1.3.3 Factors Related to School Experience

School does not just transmit the general standards and values of a society. It also influences educational aspirations, interacting with the students' ability to control their school experiences to give a sense of meaning to their learning, and to their aspirations.

a) Academic Performance

Repeating a school year, academic results obtained and the curriculum studied are important indicators that allow young people to assess their ability to succeed in school. These indicators will be decisive because they impose immediate constraints on the educational aspirations of young people (HRSDC, 2004). Andres et al. (1999), Butlin (1999) and Looker (2002) show that these factors are among the most important determinants of educational aspirations and the pursuit of postsecondary studies.

Academic performance in mathematics, the sciences and the language of education have a strong correlation with educational aspirations (Covell, 2009; HRSDC, 2004; Ma and Wang, 2002; Boudon, Cuin, Massot, 2000; Herting Wahl et al., 2000; Perron et al., 1999; Butlin, 1999; Hemmings et al., 1997; Hossler and Stage, 1992). For Ma and Wang (2002), the results obtained in mathematics determine the level of educational aspirations. In short, the stronger the results, the more the aspirations of young people will be oriented toward plans for university studies.

Similarly, Butlin (1999) shows that students who obtained an "A" average in high school were 4.6 times more likely to attend university than students who received a "C" average. Moreover, academic performance is more of a deciding factor in the aspirations of boys than it is for girls (HRSDC, 2004: i).

b) Study Practices and Aspirations

The time spent on homework will also be an important determinant in the construction of educational aspirations. Young people who aspire to more advanced university studies invest more time in their homework and other school work; those who have a negative school experience tend to limit their educational aspirations to the high school or college-level (HRSDC, 2004).

1.4 Possible Interpretative Frameworks

The construction of educational aspirations may be the result of the influence of several factors associated with family history, living conditions, other social characteristics, the previous education of the individual and their own cognitive skills. Research conducted on educational aspirations highlights various relationships between these factors and provides different analytical frameworks that lead to interpretations of the production and adjustment of aspirations over time. The consistency of these analytical frameworks allows us to better understand the interrelationships between these factors.

1.4.1 Combinations of Factors that May Influence Educational Aspirations

A first interpretative approach is to group together the various factors into categories that are meaningful on the basis of how they exert an influence. For example, Garg and her colleagues (2002) grouped into three categories the factors likely to influence the educational and professional aspirations of young Canadians and serve as predictive indicators. The first category gathers together the factors related to the social origin of the individual and demographic characteristics (background). These include factors such as gender, age, parents' level of education, socio-economic status of the family (education and occupation of parents), the family structure (single parent or not),

etc. In short, these factors influence the cultural heritage of young students as transmitted to them by their families.

The second category includes personal factors related to the individual's perception of his or her skills, as well as the attitude toward education and work. This category includes psychosocial factors such as ambition, self-esteem and the sense of self-efficacy.

In the third category, we find environmental factors, which are related to social interactions that may influence the individual (relationships with classmates, teachers, family, guidance counsellors). These interactions constitute an environment that provides a form of support which, according to Lent et al. (1994), affects the learning experiences as well as the sense of self-efficacy and expectations.

1.4.2 The Logic of Social Reproduction

Furthermore, educational aspirations could be explained by social and cultural heritage (Ojeda, Flores, 2008; Lizette Ojeda, Lisa Y. Flores, 2008; Garg, Melanson and Levin, 2007; Marjoribanks, 2005; HRSDC, 2004). In this view, the orientation of aspirations is the result of the individual's social characteristics, of his or her family and the community in which he or she lives. Thus, this work brings to the fore the social background of aspirations.

As such, "social reproduction sociologists" explain that educational aspirations are produced by differentiated socialization according to affiliation with a social class, or even a segment of a class (Duru-Bellat and Van Zanten, 2002; Bourdieu, 1980; Bourdieu and Passeron, 1970, 1964). Socialization differentiates individuals through the incorporation of habitus, which are the predispositions that construct social agents and act as schemes for the assessment and evaluation of situations.⁴ The construction of educational aspirations would therefore be associated with cultural predispositions embedded in the social relationships of class, gender and culture (Gauthier and Mercier, 1994; Dronker, 1994), which would be constructed, at least in part, outside of the school experience.

⁴ are often defined as structured structures predisposed to function as structuring structures (Bourdieu, 1980).

This interpretive framework considers the educational experience of the student as largely dependent on the education strategies of the family, living conditions, skills and cultural dispositions acquired in the form of mental representations (Warburton, Bougarin and Nunez, 2001; Ball et al., 2001 and 2002; Rodriguez, 2003; Duggan, 2004; Swail, Cabrera and Lee, 2004). The production of educational aspirations is therefore closely associated with the process of social reproduction. They emanate largely from these mental representations or habitus. Moreover, several empirical studies show that educational aspirations, often measured in the number of years of study planned, are higher among girls and children from more affluent families. Young people from disadvantaged social groups have lower aspirations with regard to university studies. In Canada, empirical studies show that educational aspirations are strongly linked to family characteristics, namely, the income, education and professions of the parents. In fact, these factors have a certain influence on aspirations towards further studies at various educational levels. For example, youth from low income families are more likely to aspire to high school or college-level studies than to university studies (Covell, 2009; Marjoribanks, 2005; HRSDC, 2004).

1.4.3 The Rational Actor and Aspirations

Another theoretical perspective proposes a representation of the social actor as a rational individual. According to this approach, social action is a “social phenomenon [which is] the product of individual actions, decisions, attitudes, behavior, beliefs, etc.” (Boudon, 2003). In this sense, individuals are the initiators of the action: they act on the basis of their understanding of what action to take, as well as resulting advantages and disadvantages, depending on their personal interests. For example, the student must make choices at different times along his or her educational pathway. These choices are based on an “assessment” that bring into play his or her socio-economic position and educational experience, factors that influence the perception of the advantages and disadvantages associated with pursuing further

education. Thus, a young person from an affluent background does not necessarily make the same decision about pursuing higher education as a young person from a disadvantaged background would.

This means that academic results will come into play at a time when students must undergo the orientation process. During this time, they must “decide whether to continue or stop, take a long route or a short route, choose a pathway associated with larger or smaller hopes” (Boudon, 2000: 23). For Boudon, during this transition, that is, when moving from one level of education to another, students conceptualize their “hopes” by weighing the pros and cons of costs, benefits and risks based on their academic results. For Boudon, “as one advances in one’s curriculum, the relationship between social class and success tends to disappear” (Boudon, 2000: 23). Boudon underscores the pertinence of taking into account young people’s school experiences.

The results of works that link educational aspirations with school experiences can be easily interpreted in this theoretical context: aspirations are much higher when the school experience has been rewarding for the student in his or her previous educational pathways. In fact, the findings of many studies show that educational aspirations, defined by the number of years of study planned, tend to decrease among students who scored average or low marks during high school and among those whose commitment to school is weak (Covell, 2009; HRSDC, 2004; Ma and Wang, 2002; Boudon, Cuin, Massot, 2000; Herting Wahl et al., 2000; Butlin, 1999).

1.4.4 The Social Experience and Future Plans

Other theoretical perspectives incorporate the formulation of educational aspirations into the broader context of social background and the school experience without need of recourse to the concept of the rational actor. Dubet and Martuccelli (1994, 1996) recognize that it is important to take into account all the factors that shape the social and educational experience, even if the influence of social history (including class position) in the shaping of aspirations tends to diminish over time.

Thus, young people's educational aspirations are developed on the basis of their understanding of their own school experience, of the interaction of the knowledge and know-how acquired during their previous education well as their current experiences. In this sense, educational aspirations are related to skills acquired in different areas of knowledge and are transferable to other situations (school-related or not).

Bernier (1986) stressed the importance of considering students' abilities to adapt their aspirations to the structures of the school and, in particular, its requirements in terms of the formulation of plans. Thus, ["for many adolescents, professional aspirations are treated as real plans by which they organize their school trajectory and thereby, very early on, delineate a whole vision of their future life conditions"] (Bernier, 1986: 9). For her part, Charbonneau (2006) highlights the role of external influences in the choice of aspirations: ["young people thus appear very sensitive to the different messages they receive, whether from a school system that seeks to foster the pursuit of further studies, a job market which suggests that, in any case, they will have to redefine their careers throughout their lifetimes and, more generally, a society that encourages the widening of experiences during this period of life where identities take shape and where there are a myriad of possible options."] (P. 119)

1.4.5 Social Cognitive Career Theory

In Social Cognitive Career Theory (SCCT), Lent et al. (2000) distinguish two complementary levels of analysis:

- 1) individual cognitive variables (e.g. goals and aspirations) that guide actions and behaviour in terms of professional development;
- 2) the ways in which several groups of variables (e.g. learning experiences) influence the interests and decision-making behaviours of actors; personal, contextual and behavioural variables have complex relationships of reciprocal influence.

Both objective external factors (e.g. the quality of education received) and perceived external factors have tangible effects on the educational pathways of individuals, notably on their educational choices from one stage to another. It appears, however, that the effect of an external factor will depend on the way in which an individual understands or reacts to it. Thus, the individual is not a purely passive actor, even though certain environmental factors outside of his or her control can definitely have an effect. In this sense, opportunities, resources and obstacles in the environment are subject to personal interpretation; we should therefore bear in mind the active phenomenological role of the person when examining the negative and positive influences of the environment.

On this basis, it seems appropriate to ask if, over the course of students' educational pathway, the school experience can mitigate the primary effect of social class on the development of educational aspirations and influence the development of self-confidence and self-esteem by helping to reshape these educational aspirations. In other words, can a young student at the beginning of high school, regardless of his or her socio-economic status of origin, maintain more or less high educational aspirations based on the results achieved in high school?

1.5 Orientation of the Note

Our analysis of educational aspirations will enable us to deepen our understanding of access to and persistence in postsecondary studies. The data analyzed will allow us to highlight certain factors that may influence whether a student excels in school or drops out, and will shed light on academic achievements and bring to the fore young people's desire to invest in future studies.

This research paper will attempt to explain the influence of social status, school experience and psychosocial variables on the development of educational and professional aspirations. More specifically, this work aims to evaluate the effect of prior academic experience on educational aspirations. Our hypothesis is that the influence of

social class on an individual's educational and professional aspirations tends to diminish over the course of his or her academic and educational pathway. It is as if young people, in light of their experiences, reposition their goals through assessment or reassessment, by weighing the different opinions, costs, benefits and risks (Boudon, 2000) regarding their educational choices. As demonstrated by Massot (2000), the decision to pursue studies is based on ["the simultaneous consideration of conjunctural parameters (academic performance) and provisional parameters (expected benefits), which generate a complex structure (interactional) if they are put into play with previous parameters (the cultural level of the family)"] (p. 51). In other words, the student rationalizes his or her level of aspiration by creating an interaction of different factors. In this regard, as shown by Boudon, Cuin and Massot (2000), academic performance is paramount to the student's reasoning process ["because the risk of subsequent abandonment depends on academic results"] (Massot, 2000: 46).

When the moment arrives to evaluate the

feasibility of educational aspirations, the student in transition will orient his or her educational aspirations by taking into consideration the degree of success attained (prior academic results) and his or her school experience (having to attend remedial classes, repeat grades, etc.). In this research paper, the expression "realistic educational aspirations" will be used to describe the student's expectations when taking into account possible pitfalls, academic results obtained in high school as well as the current school experience. Empirically speaking, we would like to measure the influence of socio-cultural factors (gender, family structure, socio-economic status, region of origin and the sense of belonging) and factors related to the school experience (the perception of competence, academic results and educational experience – getting in trouble, failing, repeating years, etc.) on the evolution of educational aspirations.

2. Methodology

From the outset, it should be noted that we had to remove some of the variables listed in the literature. This is because, firstly, the YITS had not sought to measure these variables. On the other hand, it was necessary to limit the number of variables to be studied in order to avoid creating an overly complex model and to bring the strength of the variables in the study to the fore.

2.1 Source of Data

This study uses data from the Youth in Transition Survey (YITS), conducted by Human Resources and Skills Development Canada (HRSDC) and Statistics Canada. This longitudinal survey began in 2000 (cycle 1) and we also used data from the three subsequent cycles of collection: 2002 (cycle 2), 2004 (cycle 3) and 2006 (cycle 4). The sample grouped together young people born in 1984 and aged 15 years on December 31, 1999. The sample consists of young people who also participated in the Programme for International Student Assessment (PISA 2000). In the fourth cycle of the survey, the sample was comprised of 18,414 individuals. Our analysis will focus on young people residing in one of the ten provinces of Canada who have responded to all four cycles of the YITS.

The YITS is of interest for the purposes of this study because it holds information on the educational aspirations of students, which it was able to collect at different cycles. We also find information on academic results in core subjects, educational situations in high school (falling behind or interrupting studies) and type of educational institution attended. In addition, the database contains information on students' socio-demographic characteristics and the school environment in which they evolved. In short, the

YITS offers a range of information from which we can draw an overall picture of what might influence educational aspirations throughout the first six years of the survey, from cycle 1 to cycle 4.

2.2 Operationalization of Variables

We had to re-categorize some of the variables used in the YITS for use in our analysis. The next section explains the choice of variables and how some of these were constructed.

2.2.1 The Construction of Dependent Variables

The YITS includes two questions related to the aspirations of young people:

1. "Given the current situation, what do you think is the highest level of education you think you will achieve?"
2. "What is the highest level of education that you would like to achieve?"

The first question concerns more realistic aspirations; the question is formulated in the present indicative tense and explicitly suggests that respondents refer to their current situation to formulate their educational aspirations. Thus the first question asks them to consider circumstantial elements to define aspirations with a greater degree of realism. The second question uses the conditional form without reference to any constraints or special circumstances. It is therefore asking respondents to describe their idealistic aspirations, i.e. goals that young people would like to achieve, but that they may consider unattainable.

Insert 1

Variables Related to Aspirations in the YITS, Cohort A

	Realistic aspirations	Idealistic aspirations
Questions	The next question asks about your plans for your studies and career. Given the current situation, what is the highest level of education you think you will achieve?	What is the highest level of study that you would like to attain?
Name of variables in the YITS	M2Q30 in cycle 2 M3Q30 in cycle 3 M4Q30 in cycle 4	YSDV_A11 in cycle 1 M2Q31 in cycle 2 M3Q31 in cycle 3 M4Q31 in cycle 4
Categories of variables in the YITS in cycle 1	Non-existent	01 Less than a high school diploma 02 High school diploma or equivalent 03 Certificate or diploma of vocational or trade training, or apprenticeship 04 Certificate or diploma from a college or cegep (Québec) 05 A university diploma 06 More than a university diploma 97 Don't know 99 Not answered
Categories of variables in the YITS in cycles 2, 3 and 4	01 Less than a high school diploma 02 High school diploma or equivalent 03 Some postsecondary education (no certificate, diploma or degree) 04 Private business school or private training institute – certificate or diploma 05 College, cegep, vocational or trade training or registered apprenticeship – certificate or diploma 06 Bachelor's degree (e.g. B.A., B.Sc., B.Ed.) 07 First professional degree (e.g. medicine, dentistry, veterinary medicine, law, optometry, theology) 08 Master's degree 09 Ph. D. (doctoral degree obtained) 10 Other - specify 97 Don't know 98 Refuse to answer 99 Not answered	01 Less than a high school diploma 02 High school diploma or equivalent 03 Some postsecondary education (no certificate, diploma or degree) 04 Private business school or private training institute – certificate or diploma 05 College, cegep, vocational or trade training or registered apprenticeship – certificate or diploma 06 Bachelor's degree (e.g. B.A., B.Sc., B.Ed.) 07 First professional degree (e.g. medicine, dentistry, veterinary medicine, law, optometry, theology) 08 Master's degree 09 Ph. D. (doctoral degree obtained) 10 Other - specify 97 Don't know 98 Refuse to answer 99 Not answered

In the following analysis, we will only retain the realistic⁵ aspiration as a dependent variable. Indeed, guided by the literature presented in Chapter 1, we want to understand the extent to which aspirations are shaped by constraints or circumstances that stem from social background and high school education. Therefore, realistic aspirations appear more relevant. Our study of the evolution of aspirations will be based essentially on realistic aspirations reported in cycles 2 and 4. The concept of a “slope of aspirations” that we use in this research note refers to the evolution of expectations over time, which may mean ascending, descending or fixed aspirations.⁶

The exclusion of idealistic aspirations is also based on the analysis of previous studies, i.e. the ASOPE and ÉCOBES surveys. In consulting their data collection instruments it was revealed that the order in which questions about educational aspirations are asked is different from that used in the YITS questionnaires. In the first two surveys, the researchers asked respondents first about their idealistic aspirations, then about their realistic expectations. This order allowed young people to consider the influence that certain obstacles may have on the construction of aspirations. It forced a reflection, however brief, on the respondent’s school experience and highlighted the role of social context in the development of realistic educational aspirations. Thus, this strategy provides greater accuracy and better quality answers. When first questioning respondents about their idealistic aspirations (Q.2 [“If it was up to you alone, how far would you like to go in your studies?”] – Perron et al., 1999: 169), the sequence used clearly leaves room for the respondent to express a desire he or she would like to see satisfied, regardless of the

obstacles that may impede the project. On the other hand, questions Q.3 ([“Do you think it will be hard to attain this level?”] – Perron et al., 1999: 169) and Q.4 ([“What are the two main reasons why you think it will be difficult to achieve your academic plans?”] – Perron et al., 1999: 170), provokes reflection by the student and “imposes” a more realistic assessment because they encourage the respondent to consider the personal and structural constraints that may obstruct the achievement of his or her objectives. In the same vein, when the respondent is questioned about realistic aspirations (Q.5 [“Given your situation, how far do you realistically expect to pursue your studies?”] – Perron et al., 1999: 170), the student’s answer will certainly be influenced by the reflection prompted by answers given to the previous questions.

In this context, it therefore seemed appropriate to exclude idealistic aspirations, given that the answer to the first question on realistic aspirations (M4Q30⁷ “Given the current situation, what is the highest level of education do you think you will achieve?”) could very well carry over onto the formulation of the answer to the subsequent question on idealistic aspirations (M4Q31⁸ “What is the highest level of education that you would like to achieve?”).

a) Realistic Aspirations

Given the large number of categories of possible educational aspirations (types of training), we deemed it preferable to group them into five categories. The table below shows how our aspiration variables were developed from those of the YITS.

5 Although we began our analysis by comparing the two types of aspirations, we will give minimal attention to the idealistic aspirations. This choice is explained below.

6 It goes without saying that the measurement and analysis of the evolution of aspirations presented here have no moral connotation.

7 Youth in Transition Survey (YITS) – Cycle 4 Cohort A – Person Level Main File, Codebook [PDF] http://www.statcan.gc.ca/imdb-bmdi/document/4435_D11_T9_V3-eng.pdf (document consulted 6/09/09), p. 79.

8 Ibid., p. 78.

Insert 2

Grouping of Categories of the Realistic Aspiration Variable

High school diploma or less	01 Less than a high school diploma + 02 High school diploma or equivalent
College-level studies (with or without diploma)	03 Some postsecondary education (no certificate, diploma or degree) + 04 Private business school or private training institute – certificate or diploma + 05 College, cegep, vocational or trade training or registered apprenticeship – certificate or diploma
Undergraduate level - university	06 Bachelor's degree (e.g. B.A., B.Sc., B.Ed.) + 07 First professional degree (e.g. medicine, dentistry, veterinary medicine, law, optometry, theology)
Graduate and postgraduate levels - university	08 Master's degree + Ph. D. (doctoral degree obtained)
Don't know	97 Don't know

b) The Types of Slopes of Realistic Educational Aspirations

To exploit the longitudinal aspect of the YITS for the study of educational aspirations, we decided to study the “slope of aspirations”. The concept of a slope can “illustrate” the variations in aspirations from one survey cycle to another, that is, at different times during the respondent’s educational pathway.

With the concept of a slope, it is possible to analyze changes in aspirations and identify various slopes of aspirations between cycles 2 and 4 of the YITS. This concept allows us to describe the types of slopes and to identify a typology of the variations observed from one cycle to another. For example, for the realistic aspirations reported in cycles 2, 3 and 4, it is possible to have a number sequence, such as 324. This sequence represents respondents’ “slope of aspirations” and means that respondents reported that they intended to pursue university-level degrees (3) in cycle 2 of the survey, non-university postsecondary studies (2) in cycle 3, and finally a

master's or doctorate degree (4) in cycle 4 of the survey. The name of each ascending or descending slope is determined by the starting level of the variation of aspirations it represents. Obviously, in the case of fixed slopes, the starting level is the same as the finishing level.

We will not consider, for analytical purposes, the Do not know category. For the realistic aspiration variable, respondents who chose Do not know for at least one cycle represent only 6.6% of young people in the study.

We have created four groups of slopes to analyze: fixed pre-university, fixed university, ascending and descending slopes. These groups, characterized by the variation of slopes, refer to changes in aspirations between cycle 2 and cycle 4 of the YITS. This means that at this stage of analysis, aspirations in cycle 3 are not taken into account (although they appear in the numerical sequence of three numbers that describe the trajectory). The table below shows how these two groups were constructed:

Insert 3

Slopes of Realistic Aspirations and Sequences of Declared Aspirations

Slopes of realistic aspirations	Examples of aspirational pathways
ASCENDING:	
Ascending - high school (toward postsecondary)	112, 122, 132, 142, 113, 152, 153, 154...
Ascending - college (toward university)	213, 223, 233, 243, 244, 253, 254...
Ascending - undergraduate level (toward higher studies)	314, 324, 334, 344, 354
FIXED - PRE-UNIVERSITY:	
Fixed - high school	111, 121, 131, 141, 151
Fixed - college	222, 212, 232, 242, 252
FIXED - UNIVERSITY:	
Fixed - undergraduate level	333, 313, 323, 343, 353
Fixed - graduate and postgraduate levels	444, 414, 424, 434, 454
DESCENDING:	
Descending - college (toward high school)	211, 221, 231, 241, 251
Descending - undergraduate level (toward college)	311, 321, 331, 341, 351, 312, 322...
Descending - graduate and postgraduate levels (toward undergraduate level)	411, 421, 431, 441, 451, 412, 422, 432...

2.3 The Construction of Independent Variables

In keeping with our theoretical framework, three groups of independent variables will be used to evaluate the effect of the prior academic and educational pathways on the evolution of educational aspirations (ascending, fixed or descending slope). The first group brings together variables associated with social and cultural affiliation; the second are the variables associated with prior academic history (the average scores generally obtained in the last year of high school in

cycle 1 of the YITS); and the third group consists of the variables associated with psychosocial characteristics, such as self-esteem and the sense of personal self-efficacy. The following table presents these variables while specifying their definition and operationalization.

It should be noted that the majority of the independent variables used come from cycle 1 of the YITS, cohort A. Consistent with our hypothesis, this allows us to analyze whether the variables that take into account prior school experience (that is, the high school academic experience) influence the attainment of aspirations in subsequent cycles and hence slope of aspirations.

Insert 4

independent variables

Variables	Definition and operationalization	Values
Gender		1 = Female 2 = Male
SOCIAL AND CULTURAL AFFILIATION		
Socio-occupational category of the respondent's parents	Constructed according to the parents' occupation and employment status at the time of the first collection of data (employed or self-employed).	1 = Executive and manager 2 = Owner 3 = Professional 4 = Liberal profession, salaried white-collar 5 = Self-employed white-collar 6 = Blue collar 7 = Artisan 8 = Unemployed
First-generation students (FGS)	This variable is measured by the highest level of education obtained by one or both parents. In Cycle 1 of the YITS, each parent was asked to specify the highest level of education attained.	1 = One or both parents with high school education or less 2 = One or both parents with college-level education 3 = One or both parents with university-level education
Income of parents	Income is derived from the sum of revenue from nine sources mentioned during the interview with parents, namely, (1) salaries and wages before deductions, including bonuses, gratuities and commissions; (2) the net income from farm or non-farm self-employment (after expenses and before taxes); (3) Employment Insurance benefits (before deductions); (4) Canada Child Tax Benefits and provincial child benefit and credit programs (including Québec Family Allowance); (5) income security benefits (social assistance) and provincial supplements; (6) spousal support received; (7) other government sources such as Canada Pension Plan or Québec Pension Plan, old age security pension or workers' compensation benefits; (8) GST/HST Credit received in 1999 (goods and services tax / harmonized sales tax); (9) other non-governmental sources, including dividends, interest and other income from investments, private pension funds, RRIFs, annuities, scholarships, and rental income.	Scale variable
GEOGRAPHIC SITUATION		
Place of residence	This variable was established by Statistics Canada using geographic indicators based on the classification of statistical sectors that identify whether a region is rural or urban (2001 census geography).	1 = Rural 2 = Urban
ACADEMIC HISTORY		
Academic results	Average in mathematics Average in language Average in sciences	1 = 90-100%; 2 = 80-89%; 3 = 70-79%; 4 = 60-69%; 5 = 60% or less

Variables	Definition and operationalization	Values
Time spent on homework per week	This variable was created from the following question: about how many hours do you usually spend each week doing homework outside of class (during free periods and at home)?	1 = less than one hour 2 = 1 to 3 hours 3 = 4 to 7 hours 4 = 8 hours or more
Dropped out at some point during studies	Young people were asked if they had dropped out of school at any time during their elementary or high school education.	1 = Yes 2 = No
Fell behind in school	“Reported having attended remedial classes at school (language or others; and a few times or regularly) during the past three years.”	1 = Yes (repeated a year in elementary school or was in Grade 8 [Secondary II] or less at age 15) 2 = No (did not repeat any years in elementary school and was at least in Grade 9 [Secondary III] at age 15)
Attended remedial (make-up) classes	Variable created from the PISA data. Young people were asked whether they had taken a remedial course in the last three years.	1 = Yes 2 = No
Type of high school attended	According to PISA, a school is deemed public or private according to whether a public agency or private institution holds the ultimate power of decision over its administration.	1 = Private institution 2 = Public institution
PSYCHOSOCIAL VARIABLES		
Self-efficacy	According to the YITS, [“this variable measures the self-efficacy (confidence in achieving positive results) of the respondent. The score according to the Item Response Theory (IRT) scale was derived using the YSA8K, YSA8L, YSA8M and YSA8N elements”] (see Appendix 1). These variables reflect the young person’s comprehension skills at school, the ability to perform school work and the mastery of academic skills.	Scale variable
Self-esteem	According to the YITS, [“this variable measures the self-esteem of the respondent. The score according to the Item Response Theory (IRT) scale was derived using the YSI1A, YSI1B, YSI1C, YSI1D, YSI1E YSI1F, YSI1G, YSI1H, YSI1I and YSI1J elements”] (see Appendix 1). These variables reflect the young person’s positive or negative self-perceptions.	Scale variable
Social engagement	According to the YITS, [“this variable measures the social engagement of the respondent in high school. The score according to the Item Response Theory (IRT) scale was derived using the YSA9K, YSA9O and YSA9P elements”] (see Appendix 1). These variables reflect the attention the young person gives to and receives from friends.	Scale variable
Academic engagement	According to the YITS, [“this variable measures the academic engagement of the respondent in high school. The score was derived from a simple average of the scores according to the Item Response Theory (IRT) scale for YSHACPS1 and YSHACIS1”] (see Appendix 1). These variables reflect the young person’s involvement in and identification with school.	Scale variable

2.4 Statistical Analyses

The following chapter presents two types of statistical analyses: a descriptive analysis and a multivariate analysis. The first one aims to establish if there is a significant relationship between the dependent variables and each of the independent or control variables. In fact, this analysis enables us to characterize the evolution of aspirations on the basis of three groupings of variables (ascending slope, fixed slope and descending slope). The descriptive analysis will help define the variations of realistic educational aspirations.

The second analysis, which is a multivariate analysis based on a logistic regression, will estimate the relative influence of each of the independent variables on the dependent variable. In other words, this analytical process will enable us to assess the relative influence of past school experiences on social and cultural affiliation factors and on psychosocial factors. Hence, this type of algorithm will bring out the impact of school experiences on the development of realistic educational aspirations when the influence of other variables is statistically controlled. Logistic regression will be used to achieve this. It should be mentioned that this type of analysis consists of explaining or predicting a dichotomous variable through a series of factors or independent variables. In the present case, we will probe to what extent the probability of having a given level of aspiration (high school, college level,

university level) and the probability of having a given type of slope (ascending, fixed or descending) are linked to past school experiences. The interpretation will be performed on the basis of odds ratios (OR). This statistical index is used to compare probabilities. When its value is equal or close to 1, the influence of the independent variable to which it is associated is null or weak. Conversely, an OR with a value that is superior to 1 means that the influence of the independent variable is positive; an OR with a value below 1 means instead that this influence is negative. The value of p (significance index) indicates if this influence is significant or if, on the contrary, it is a matter of chance. In the present case, a negative or positive OR reveals that the independent variable contributes to decreasing or increasing the probability of having a descending, fixed or ascending educational aspirations slope.

The data's longitudinal nature enables us to examine the evolution of aspirations, in particular the variations in the influence of social background, psychosocial factors and secondary education. The objective of our analysis is not simply to describe the evolution of aspirations; it is also and above all to identify the factors that have an influence on this evolution. Our main concern is to understand, at different stages of the survey, the factors that can explain the evolution of the aspirations of young respondents with respect to high school, college, undergraduate and postgraduate education.

3. Descriptive Analysis

3.1 Educational Aspirations: from High School to University

We will first examine the distribution of idealistic aspirations between the four cycles of the survey in order to get a first impression on their evolution. Though idealistic educational aspirations are not the subject of this research report, discussing them briefly will enable us to determine their orientation and their focus. In addition, we will be able to measure the gaps between the two types of aspirations.

The only aspirations-related question at the beginning of cycle of the survey was in regards to “idealistic” aspirations (Table 1). University—

regardless of the level—is the level of education to which close to two thirds of high school students aspire. College is far behind with a fifth of the respondents. Finally, one student out of twenty reports high school as the level of education to which he or she aspires. For the purpose of verifying if aspirations persist through the years, we calculated the dissimilarity coefficient so we could measure the overall differences between the two distributions. For example, a dissimilarity coefficient of 11 between the distributions of cycle 1 and cycle 2 means that we would need to move 11% of the respondents in order for the two distributions to be similar. Table 1 shows that this difference tends to decrease with time. The dissimilarity coefficient between cycle 3 and cycle 2 is 4; it is 2 between cycle 4 and cycle 3.

Table 1

Distribution of Respondents in Percentages of Idealistic Aspirations by YITS cycle, Canada, Cohort A

	Cycle 1 2000	Cycle 2 2001	Cycle 3 2003	Cycle 4 2005
High school or less	6	5	5	6
College	22	25	26	26
Undergraduate level	27	35	31	30
Graduate and postgraduate level	36	30	32	31
Don't know	9	5	6	7
Total	100	100	100	100
N=	18 440	18 580	18 467	18 632
Dissimilarity (cycle T – cycle 1)		11	8	8
Dissimilarity (cycle T – cycle T-1)			4	2
Dissimilarity (cycle 4 – cycle 2)				4

Where “realistic” aspirations (Table 2) are concerned, university level studies remain the level of education that is most favoured by respondents in 2001, with 54% aspiring to them. This ratio will not vary much over the following cycles. In fact, the dissimilarity coefficient that measures differences between distributions is even lower than in the case of idealistic aspirations. It also more stable from one cycle to another.

By comparing data in table 1 and 2, we can examine the gap between the distributions of idealistic and realistic aspirations. It is clearly more

significant and it is reflected in the increase in the dissimilarity coefficient between the distributions. This difference between the two distributions stems from a “cooling-out” of aspirations. Hence the ratio of students who aspired, in an ideal situation (cycles 2 and 3 of the survey) to complete graduate university studies (graduate and postgraduate level) decreases by half when time comes to formulate realistic aspirations. This trend reverses where high school, college or university studies are concerned. In a way, it appears that aspirations decrease when students express realistic aspirations.

Table 2

Distribution of Respondents by Percentages of Realistic Aspirations by YITS cycle, Canada, Cohort A

	Cycle 1 2000	Cycle 2 2001	Cycle 3 2003	Cycle 4 2005
High school or less	n/a	12	11	12
College	n/a.	32	33	34
Undergraduate level	n/a	39	36	33
Graduate and postgraduate level	n/a	15	17	18
Don't know	n/a	2	3	3
Total	n/a	100	100	100
N=	n/a	18 568	18 441	18 414
Dissimilarity (cycle T – cycle 2)	n/a		4	6
Dissimilarity (cycle 4 – cycle 3)	n/a			3
Dissimilarity between idealistic aspirations and realistic aspirations	n/a	18	18	16

This first analysis shows the importance of postsecondary education, and university education in particular, in young people's aspirations. This situation is the result of public policies that, for more than 40 years, have contributed to the development of postsecondary education by enabling the access of an increasing number of students to college and university in order to meet Canadians' rising demand for more education.

This overall picture of how young Canadians are expressing realistic educational aspirations shows that stability is the dominant feature. However, this is only a partial analysis insofar as it does not encompass the evolution of an individual's aspirations over time but rather captures aspirations in a given data collection cycle.

3.2 The Evolution of Individual Aspirations

Now that we know that young respondents, at each cycle of the survey, tend to aspire to university studies, we will describe the evolution of these aspirations by examining cycles 2 and 4 of the survey. Our goal is to classify the aspirations according to a slope: ascending, fixed or descending. For example, an ascending slope will apply to a young respondent who has "warmed up" his or her realistic aspirations between cycles 2 and 4 of the survey. This "warming-up" means that the respondent aspires henceforth to an educational level that requires longer schooling. The descriptive analysis that follows will reveal the significant links between aspiration slopes, socio-cultural or psychosocial factors and past school experiences.

3.2.1 Analysis of the Evolution of Aspirations

Once the aspiration pathways for which the frequency is inferior to 3% (other category in Table 3) are grouped into a single category, we see that the most important category is composed of fixed

slopes. According to table 3, two situations of fixed slopes are predominant: college studies (slope 222) and undergraduate studies (slope 333). These two situations are characterized by an "absolute" constancy, i.e. constancy in aspirations over the three cycles of the survey. The two situations together apply to 30% of the respondents.

Table 3

Realistic Aspiration Slopes in Young Canadians, YITS, Canada, Cohort A

Realistic aspiration slope	%
Others*	37
111	4
122	3
222	15
322	4
333	15
334	5
343	3
344	5
433	4
444	5
Total	100
N	18 843

(* All pathways with a frequency of less than 3%

As illustrated in tables 4 and 5, the majority of young Canadians (53%) report the same realistic educational aspirations at cycles 2 and 4 of the YITS (Table 4). This therefore shows a large degree of constancy in realistic aspirations, a phenomenon that was already observed in other research work, as indicated in section 1. Aspirations towards a university education account for 28%, i.e. more than half of the fixed aspirations. The descending slopes, which corresponds to what Clark calls a "cooling-out", applies to 23% of the students; the ascending slopes, which refer to a "warming-up" of aspirations, represent 24% of the respondents.

Table 4**Realistic Aspiration Slopes in the YITS Survey, Canada, Cohort A**

Slopes	Percentages
Ascending	24
Fixed/pre-university (high school and college)	25
Fixed/university (undergraduate, graduate and postgraduate levels)	28
Descending	23
Total	100
N	18843

Table 5**Realistic Aspiration Slopes According to the Educational Attainment**

Considered at Cycle 2 of the YITS Survey, Canada, Cohort A

Slopes of Realistic Aspirations Sub-groups*	Percentages
Ascending - Undergraduate level	10
Ascending – College	8
Ascending – High school	6
Fixed - Undergraduate level	20
Fixed - Graduate and postgraduate levels	8
Fixed - College	19
Fixed – High school	5
Descending – Undergraduate level	10
Descending - Graduate and postgraduate levels	9
Descending - College	5
Total	100
N	18843

*The label of each ascending or descending slope is determined by the starting level of the aspirations variation it designates.

The ascending slopes comprise 24% of the respondents; the respondents of the largest sub-group (10%) within this group stated at cycle 2 of the survey that they wanted to obtain their graduate level diploma. At cycle 4, they reported

that they now aspired to a graduate or postgraduate level diploma (Table 3). It should also be noted that 20% of the students who aspired at first to a bachelor's degree maintained this aspiration and constitute the largest of all the groups. Young Canadians persisted in their aspirations to get a college degree in 19% of the cases during the three cycles of the survey. These few results therefore underscore the predominance of aspirations for a college or university education in a large number of the young Canadian students interviewed.

In conclusion, analyzing the aspiration slopes enables us to observe the variations in the levels of education to which young people aspire. It should be noted that young Canadians' aspirations, even examined from the angle of the aspiration pathway of each of the respondents, remain constant for the great majority. This stability indicates that young people are determined to pursue their studies in the future and that, as early as the age of 15, they have a fairly clear idea about their educational aspirations.

What remains to be explored are the different factors that can influence the development of aspirations and that can lead a student to question his or her previously expressed aspirations. In order to have a better understanding of what is going through young peoples' minds when they first express their educational aspirations, we must analyze the evolution of the slopes in light of socio-cultural and socio-economic factors as well as of factors that are linked to past school experiences.

3.2.2 Analysis of Factors Related to the Evolution of Aspirations

This section aims at determining if aspirations fluctuate according to social affiliation, various psychosocial factors and past school experiences. The analysis should also enable us to pinpoint the fluctuations according to the type of realistic aspirations expressed by the students. Overall, the analysis brings out the fact that the nature of the aspirations varies more significantly than their evolution.

a) The Effect of Social Factors

A number of factors appear to have an influence on the level of aspirations but not the slope of aspirations. The following analyses are based on data from Table 6.

The Gender Effect

Overall, male and female students show fixed aspiration slopes in the same proportion, i.e. 53% in both cases (Table 6). This result nevertheless conceals a difference: a greater proportion of female students report fixed aspirations for a university education while male students are more inclined to express fixed aspirations towards a college education. In comparison to their male colleagues, 33% of female students hold on to their aspiration to undertake undergraduate level studies throughout the different cycles of the survey and 9% express the wish to pursue studies at the graduate and postgraduate levels. Within the male student population, these same ratios are 23% and 6% respectively. On the other hand, there are no gender differences in the case of ascending or descending slopes.

The First-Generation Student Effect

Students whose parents report not having attended college or university (first-generation students or FGS) aspire to a university level education in smaller numbers. Conversely, the more the parents' education capital is high, the more their children (non-FGS) express aspirations for a university level education. Nevertheless, the family's education capital does not have an influence on the aspirations slope: we observe no differences in the evolution of aspirations, whether the slope is descending, ascending or fixed.

The Effect of Linguistic Affiliation

Ethnolinguistic affiliation has no effect on the slope of aspirations but it does influence their level. Hence, a greater proportion of allophone students express fixed aspirations towards a university education than is the case in the francophone and anglophone student groups. We should note that the francophone group shows the greatest proportion of students reporting high school and college education aspirations.

The Effect of the Place of Residence

There are no differences between aspiration slopes whether the students live in a rural area or an urban area. However, a greater proportion of students residing in urban areas express university education aspirations while a greater proportion of students residing in rural areas express high school and college education aspirations.

The Effect of Socio-occupational Categories

We observe almost no variation in the evolution of aspirations when factoring in the parents' socio-occupational categories. There are however some differences where aspirations for a university education are concerned. Children of business owners and professionals (salaried or independent) express their aspiration for a university education in a greater proportion; as a corollary, a smaller proportion of this group of students aspire to a high school or college education. Children of salaried white-collars, blue-collars and artisans have a greater tendency to express aspirations for high school or college level education; consequently, a smaller proportion of this group aspires to a university education.

Table 6**Distribution of Respondents According to the Aspiration Slope and the Social Affiliation Characteristics (%), YITS, Canada, Cohort A**

	Ascending - undergraduate level	Ascending - college	Ascending - high school	Total - ascending slopes	Fixed - graduate and postgraduate levels	Fixed - undergraduate level	Total - fixed slopes, university level	Fixed - college	Fixed - high school	Total - fixed slopes, high school and college	Descending - graduate and postgraduate levels	Descending - undergraduate level	Descending - college	Total - descending slopes	Total
General situation	10	8	6	24	8	20	28	19	5	24	9	10	5	24	100
GENDER															
Male	8	8	7	23	6	17	23	23	7	30	9	9	6	24	100
Female	12	8	6	26	9	24	33	16	4	20	9	10	3	22	100
PARENTS' SOCIO-OCCUPATIONAL CATEGORY															
Executive or manager	11	9	7	27	6	21	27	20	4	24	8	10	4	22	100
Owner	10	7	6	23	11	22	33	16	3	19	11	11	4	26	100
Professional	10	10	3	23	10	29	39	10	1	11	10	13	6	29	100
Liberal profession	14	7	5	26	12	24	36	14	3	17	11	7	3	21	100
Salaried white-collar	8	8	8	24	5	18	23	23	8	31	6	11	5	22	100
Self-employed white-collar	7	11	5	23	7	20	27	21	4	25	7	10	9	26	100
Blue-collar	7	5	9	21	5	16	21	26	8	34	11	7	7	25	100
Artisan	6	7	7	20	2	19	21	25	12	37	5	10	8	23	100
Unemployed	8	5	5	18	13	19	32	23	7	30	7	8	6	21	100
FIRST-GENERATION STUDENTS (FGS)															
FGS	5	9	9	23	3	14	17	25	10	35	5	9	9	23	100
Non-FGS College	10	8	7	25	5	20	25	23	5	28	7	11	5	23	100
Non-FGS	16	5	3	24	15	28	43	9	1	10	13	7	1	21	100
LINGUISTIC AFFILIATION															
Anglophone	10	7	7	24	7	22	29	20	4	24	9	10	4	23	100
Francophone	9	8	7	24	7	16	23	22	9	31	6	9	8	23	100
Allophone	13	8	5	26	13	27	40	12	1	13	13	8	2	23	100
PLACE OF RESIDENCE															
Rural	6	6	9	21	3	17	20	28	9	37	6	9	6	21	100
Urban	11	8	6	25	9	21	30	17	4	21	10	10	4	24	100

*b) The Effect of School Experiences****The Effect of Grades Obtained in High School***

The data in table 7 indicates that the level of fixed aspirations for a university education is determined by the average scores obtained in mathematics, languages and sciences. This trend is present as much in the case of aspirations for graduate and postgraduate levels of education as for aspirations for an undergraduate level. Between 40% and 47% of the young students whose average scores in sciences or languages are between 80% and 89% or between 90% and 100%, express fixed university aspirations. Scores in mathematics bring similar results. The trend is reversed in the case of aspirations for a college or high school education: between 32% and 40% of the students whose average score in sciences or languages are below 60% or between 60% and 69% report fixed aspirations for college and high school levels of education.

Ascending aspirations do not appear to fluctuate according to average scores in high school. In fact, this masks two opposite trends: ascending slopes leading to university are proportionally more

frequent as average scores increase, while we observe the opposite trend for slopes leading to college or high school education.

There is a similar phenomenon for descending slopes. There are no fluctuations overall, but the number of descending slopes that go from graduate and postgraduate levels to undergraduate level increases with the progression of average scores. We can observe the reverse trend in the case of aspirations for undergraduate studies. We can speculate that students who obtained good grades in high school had very high aspirations but that they reviewed these goals downwards over time because of different events that took place.

Overall, it appears that average scores in high school have more of an influence on the intention to attend university than does the evolution of aspirations. The only situation that is different concerns the undergraduate level descending slope for which the ratio of respondents decreases when average scores increase, which can be explained by a readjustment of the aspirations of respondents who wished to attend university despite their lower average scores.

Table 7

Distribution of Respondents According to Aspiration Slopes and School Experiences (%), YITS, Canada, Cohort A

	Ascending – undergraduate level	Ascending - college	Ascending – high school	Total - ascending slopes	Fixed – graduate and postgraduate levels	Fixed – undergraduate level	Total - fixed slopes, university level	Fixed - college	Fixed – high school	Total - fixed slopes, high school and college	Descending – graduate and postgraduate levels	Descending – undergraduate level	Descending - college	Total - descending slopes	Total
General situation	10	8	6	24	8	20	28	19	5	24	9	10	5	24	100
AVERAGE SCORE IN MATHEMATICS															
90-100%	17	3	3	23	18	28	46	7	1	8	15	6	1	22	100
80-89%	15	7	3	25	11	26	37	13	3	16	11	8	3	22	100
70-79%	10	9	7	26	7	22	29	19	4	23	8	11	3	22	100
60-69%	6	10	7	23	5	18	23	24	6	30	7	11	7	25	100
Less than 60%	4	7	11	22	3	12	15	29	8	37	6	12	8	26	100
AVERAGE SCORE IN LANGUAGES															
90-100%	18	4	3	25	21	26	47	7	2	9	14	5	1	20	100
80-89%	16	6	3	25	13	28	41	12	1	13	12	9	2	23	100
70-79%	9	9	6	24	5	22	27	20	4	24	9	11	4	24	100
60-69%	4	10	10	24	2	14	16	27	7	34	5	12	7	24	100
Less than 60%	2	7	13	22	1	8	9	31	13	44	4	7	12	23	100
AVERAGE SCORE IN SCIENCES															
90-100%	18	4	2	24	19	27	46	6	1	7	17	5	1	23	100
80-89%	15	7	4	26	12	28	40	12	2	14	10	8	2	20	100
70-79%	8	10	6	24	6	21	27	21	3	24	8	12	5	25	100
60-69%	6	10	9	25	2	14	16	27	7	34	7	11	7	25	100
Less than 60%	3	8	13	24	1	10	11	30	11	41	5	10	9	24	100
TIME SPENT ON HOMEWORK PER WEEK															
Less than an hour	6	8	10	24	3	12	15	26	11	37	5	10	10	25	100
1 to 3 hours	9	8	7	24	6	22	28	21	4	25	8	10	5	23	100
4 to 7 hours	13	7	4	24	12	24	36	14	2	16	12	10	2	24	100
8 hours or more	18	5	3	26	15	26	41	9	1	10	14	7	1	22	100

	Ascending – undergraduate level	Ascending - college	Ascending – high school	Total - ascending slopes	Fixed – graduate and postgraduate levels	Fixed – undergraduate level	Total - fixed slopes, university level	Fixed - college	Fixed – high school	Total - fixed slopes, high school and college	Descending – graduate and postgraduate levels	Descending – undergraduate level	Descending - college	Total - descending slopes	Total
HAD AN INTERRUPTION IN STUDIES															
Yes	0	8	18	26	0	5	5	17	31	48	2	4	14	20	100
No	10	8	6	24	8	21	29	19	4	23	9	10	4	23	100
FELL BEHIND															
Yes	3	5	13	21	1	7	8	21	25	46	4	9	12	25	100
No	11	8	6	25	8	21	29	19	4	23	9	10	4	23	100
HAD EDUCATIONAL INTEGRATION PROBLEMS															
Yes	7	8	9	24	7	15	22	19	12	31	7	9	8	24	100
No	11	7	6	24	8	22	30	19	3	22	10	10	4	24	100
TOOK REMEDIAL COURSES															
Yes	11	8	6	25	7	21	28	20	4	24	9	10	4	23	100
No	9	7	7	23	8	18	26	18	7	25	10	10	6	26	100
TYPE OF HIGH SCHOOL															
Private	17	7	3	27	17	23	40	11	1	12	14	6	2	22	100
Public	9	8	7	24	7	20	27	20	6	26	9	10	5	24	100

The Effect of Time Spent on Homework

Time spent on homework may not have bearing on ascending and descending slopes: be that as it may, we find between 22% and 26% of the respondents in ascending or descending aspiration slopes. However, the ascending university aspiration slopes are influenced by this factor (the more time invested in homework, the higher the ratio of respondents reporting a warming-up of their aspirations), and the same holds true for high school slopes. For example, 18% of the students who devote more than eight hours to homework find themselves in the undergraduate level ascending slopes. In the case

of descending slopes, we observe similar trends. The warming-up of aspirations is influenced by this factor in the case of graduate and postgraduate levels of studies as is the cooling-out in the case of students who aspired to a college education. The young respondents who aspired to a graduate and postgraduate level education but lowered their aspirations represent 14% of the students that devoted eight hours or more to homework.

In the case of fixed university aspirations, the ratio increases with the investment in homework. The reverse trend holds true in the case of non-university fixed aspirations.

The Effect of Dropping Out of School

The effect of dropping out of school follows similar trends. There are no differences in the ascending and descending slopes between the respondents that reported having dropped out of school and those who did not. However, we observe that a dropout experience curtails university aspirations and leads to lower aspirations in general. In the case of fixed aspirations, dropping out of school weakens the intention of attending university; there are no effects on college aspirations but the number of respondents reporting education aspirations requiring fewer years of studying increases.

Among the students that never dropped out from elementary or high school, 21% have “Fixed – undergraduate level” aspirations and 19% have “Fixed – college” aspirations. Conversely, among those who dropped out, 31% maintain a “Fixed – high school” aspirations slope and 18% an “Ascending – high school” slope. Dropping out at the elementary and high school level is a cooling-out factor for the aspirations of young people who also tend to, in general, to have aspirations that are lower than those who never interrupted their studies.

The Effect of Falling Behind

The effects of falling behind on aspirations are similar to those of dropping out of school.

The Effect of Educational Integration Problems

The fact of having experienced educational integration problems (change of school, disciplinary issues, etc.) lowers the level of aspirations but to a lesser extent than in the situations observed up to this point.

The Effect of Remedial Courses

Data shows that there are no links between the evolution of aspirations and having taken remedial courses or not.

The Effect of the Type of High School Attended

Attending a private school increases the probability of having university education aspirations and, as a corollary, decreases the probability of having high school or college level education aspirations.

3.3 Conclusions from the Descriptive Analysis

Here are some important elements to remember from this first analysis.

- Overall, we observe a degree of stability in the idealistic and realistic educational aspirations throughout the survey’s cycles. Realistic aspirations reported by young Canadians, insofar as they are formulated while taking into account the potential constraints to completing their studies, reflect less ambitious educational goals than those formulated within their idealistic aspirations. Furthermore, a university education is part of the educational aspirations of the majority of young Canadians. These results confirm the trends that were noted in our review of the literature.
- The analysis of individual pathways of realistic educational aspirations reveals that variations in aspirations are more frequent than the first analysis led us to believe in the beginning. Fixed aspirations are formulated by only 52% of young Canadians. The evolutions of descending slopes, which indicate a cooling-out of aspirations, concern a quarter of the respondents. Finally there is a warming-up of aspirations (ascending slope) for the last 25% of young Canadians.
- Finally, it cannot be clearly established whether socio-cultural factors such as gender, socio-economic status, parents’ education, linguistic affiliation and place of residence do have an effect on of the aspiration slope. However, as the body of work on this issue demonstrates, these

variables have an influence on the level of ambition of educational goals reported by young Canadians. Where past school experiences are concerned (i.e. average scores obtained in basic subjects in high school, time spent on homework every week, dropout status, falling behind, remedial courses and the type of high school attended), all these factors have a tangible impact on the level of aspirations and their evolution, with the exception of remedial courses that have very little influence. The variables' effect is less significant if we consider all the ascending slopes within a single "ascending slope" category. In order to measure the strength of the influence of the variables under study on educational aspirations, we need to consider the level of aspiration of the ascending slopes. The same applies to descending slopes.

The educational aspirations of young Canadians do not run counter to the logic of social reproduction. As such, students from more culturally and socio-economically fortunate environments are more inclined to express aspirations for a university education. Ethno-linguistic affiliation is also an important differentiation factor. Finally, we should note that university aspirations are more frequent among students who had good grades in high school, attended a private establishment and did not experience any particular problems during high school.

4. Multivariate Analyses

We are proposing an analysis that is divided into three sections, each corresponding to the three models of the evolution of aspirations: fixed aspirations, ascending aspirations and descending aspirations. In the multivariate analysis, they are examined separately to avoid comparing, for example, a descending college aspiration slope with a fixed graduate and postgraduate levels aspiration slope.

In each of the multivariate analyses, the reference category of the aspiration slopes is the “lowest” aspiration slope. Hence, for the analysis of the fixed aspiration slopes, the reference category is “high school aspirations”; for the analysis of descending aspiration slopes, the reference category is “descending college aspirations” and when analyzing ascending slopes, the reference category is “ascending high school aspirations”. The distribution of the respondents according to the different educational aspiration slopes is reported in Table 4.

From the outset, it should be noted that, though we proceeded on a step-by-step basis by successively adding the different variables, the multivariate analysis tables only show the model that includes all the variables that could have a significant effect. Adding the different types of variables increases the proportion of variance explained in addition to making the weight of the different variables fluctuate, something that we will emphasize when the results are particularly noteworthy. Furthermore, two variables related to high school experiences were removed from the model: needed remedial courses and fell behind. In the multivariate analysis,

the effect of these variables was never significant. Likewise, the parents’ income level variable was not used because its introduction into the model had no significant effect.

4.1 Analysis of Aspiration Slopes with the Same Variation

In order to have a better understanding of how aspirations evolved between cycle 2 (2000) and cycle 4 (2005) of the YITS, we sought to isolate the social, psychosocial and academic characteristics that may have an influence on educational aspirations. For this purpose, we grouped educational aspirations into three categories that correspond to the different aspiration slopes: fixed, descending and ascending. At this stage, the aim of the analyses was to identify the students’ characteristics that have the most influence on the evolution of educational aspirations.

What is involved more specifically is a comparison of the situations according to the type of evolution. Three models are presented, one for each type of slope. The first one compares the fixed slopes, the reference situation being the slope called fixed aspirations – high school. The second analysis compares the descending slopes and uses the slope of descending aspirations from college to high school education as the reference. For the third analysis pertaining to ascending aspirations, the reference is aspirations ascending from high school to college education.

4.1.1 Fixed Aspirations

As seen earlier, we have four levels of aspirations: aspirations for graduate and postgraduate levels of education, aspirations for an undergraduate level of education, aspirations for a college education and aspirations for a high school education. A first observation concerns the difference between how high school, college education aspirations and university aspirations are formulated. Most of the variables that are analyzed (Table 8), have less effect on the probability of reporting fixed aspirations for a high school and college education.

In the multivariate analysis, the pseudo-R² values of fixed aspiration slopes, or the proportion of variance explained by the variables that are factored into the model, underscore the weight of the variables linked to past school experiences in the formulation of educational aspirations. When the socio-cultural and socio-economic variables are analyzed in isolation, the pseudo-R² stands at 0.1147 (model 1). If we add the psychosocial variables to these (model 2), the pseudo-R² value increases to 0.1873. When all the variables are included, the increased value of the pseudo-R² (0.2732) indicates that the introduction of school experience variables has a more decisive influence. We also observe that the weight of the variables that were previously taken into account decreases, which suggests that a portion of their influence is indirect.

A number of factors have a significant effect. For example, students whose parents have a level of education higher than high school are more likely to have high academic aspirations. It is more so the case of students whose parents attended university (non-FGS university): they tend to have fixed aspirations for graduate and postgraduate studies.

Gender is also a significant variable in the reporting of fixed aspirations for a university education: the probability of feeding such high ambitions is higher among female students than male students.

School experience variables also have an influence. Not dropping out or not falling behind in high school increases the probability of having high educational aspirations. High average scores in sciences and languages is another element that increases the probability of having high aspirations. Furthermore, the more time spent on homework the higher the probability of maintaining high educational aspirations.

Among the respondents' psychosocial characteristics, the feeling of competence has a significant effect on university aspirations. The stronger this feeling gets, the higher the probability that the student persists in his or her aspirations to attend university.

Table 8**Multivariate Analysis (Multinomial Logistic) for Fixed Aspiration Situations (Fixed Slopes), YITS, Canada, Cohort A**

Reference Category: Fixed Aspirations – High School

	Fixed aspirations Graduate and postgraduate levels		Fixed aspirations Undergraduate level		Fixed aspirations College	
	UNADJUSTED EFFECTS OR (ODDS RATIOS)	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Gender						
Men	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Women	2.65***	2.63***	2.69***	2.29***	1.32*	1.19
Parents' socio-occupational category						
Management	0.35***	0.95	0.59*	1.14	0.94	1.27
Owner	0.82	1.30	0.84	1.13	1.02	1.16
Salaried professional	1.65	3.96	2.62	4.01	1.42	1.45
Liberal profession	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.
Salaried white-collar	0.14***	0.60	0.23***	0.71	0.52**	0.87
Self-employed white-collar	0.35*	0.53	0.53	0.61	0.94	0.84
Blue-collar	0.14***	0.91	0.22***	0.87	0.62	1.36
Artisan	0.04***	0.30**	0.18***	0.65	0.40***	0.74
Unemployed	0.41	1.02	0.30**	0.46	0.68	0.72
First-generation student						
FGS	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Non-FGS college	3.51***	2.31**	3.21***	2.45***	2.10***	1.75**
Non-FGS university	47.56***	13.58***	20.06***	8.04***	3.84***	2.03**
Place of residence						
Rural area	0.17***	0.22***	0.38***	0.37***	0.79	0.86
Urban area	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Type of high school						
Private	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Public	0.03***	0.14**	0.08***	0.23	0.17**	0.34
Perception of self-efficacy	3.98***	2.08***	2.37***	1.50***	1.34***	1.13
Self-esteem	2.34***	1.33*	1.80***	1.18	1.30***	1.12
Social engagement	1.62***	1.04	1.41***	0.99	1.20**	0.99
Academic engagement	4.98***	1.32	3.53***	1.54	1.79***	1.39**

	Fixed aspirations Graduate and postgraduate levels		Fixed aspirations Undergraduate level		Fixed aspirations College	
	UNADJUSTED EFFECTS OR (ODDS RATIOS)	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Average score in mathematics						
90-100%	48.18***	1.80	16.75***	2.87	1.93	1.02
80-89%	12.37***	1.01	6.66***	1.68	1.44	0.79
70-79%	5.33***	1.15	3.82***	1.86*	1.39	0.98
60-69%	2.25**	1.06	1.98***	1.67*	1.13	0.99
Less than 60%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Average score in languages						
90-100%	119.03***	15.56**	21.72***	2.13	1.45	0.72
80-89%	112.38***	25.70***	35.02***	5.13***	3.79***	1.87**
70-79%	16.04***	9.96***	9.86***	3.16***	2.43***	1.78**
60-69%	3.81**	4.61*	3.4***	1.60	1.66**	1.21
Less than 60%	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Average score in sciences						
90-100%	270***	26.38***	49.63***	6.62**	3.73**	2.28
80-89%	53.30***	9.70***	16.56***	3.32***	2.32***	1.28
70-79%	16.55***	6.07***	7.41***	2.13**	2.55***	1.36
60-69%	2.18***	1.47	2.18***	0.82	1.35	0.66
Less than 60 %	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Time spent on homework per week						
Less than an hour	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2 to 3 hours	5.26***	2.20**	4.78***	2.02**	2.03***	1.12
4 to 7 hours	19.14***	3.89***	9.91***	2.46**	2.65***	1.10
8 hours or more	73.50***	5.75***	31.67***	3.06**	4.63***	1.17
Dropout status						
Yes	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
No	709.26***	242.88***	35.68***	23.09***	8.86***	6.13***
Fell behind						
Yes	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
No	45.64***	11.93***	20.29***	8.70***	5.95***	4.13***
Variables	Type 1	Types 1 & 2	Types 1, 2 & 3			
Pseudo-R ²	0.1147	0.1873	0.2732			
χ^2 wald	811.61***	1027.69	1266.80***			
DF	39	51	102			
N	7739	7473	6959			

Notes: p (significance index): * p < 0.05; ** p < 0.01; *** p < 0.001.

Note: unadjusted effect is the “multivariate” analysis between the independent variable and a dependent variable (i.e. by excluding all other variables from the model).

4.1.2 Descending Aspirations

Three types of evolution of aspirations are considered in the analysis of descending slopes (Table 9): aspirations for graduate and postgraduate levels studies changing into aspirations for undergraduate level studies, aspirations for undergraduate level studies changing into aspirations for college studies and aspirations for college level studies changing into aspirations for high school studies, the latter situation being used as the reference situation.

In comparison to the latter situation, students who reported having excellent average scores in languages in high school show a probability of expressing aspirations for post-university education that increases significantly. The weight of this variable is all the more important since their initial aspirations were high (graduate and postgraduate studies). Falling behind and Dropping out are events

that also have a significant influence. Students who did not drop out or who did not fall behind report higher educational aspirations. The effect of these variables in the analysis suggests that they affect the level of aspirations more than their evolution.

Gender, place of residence and parents who did not pursue postsecondary studies are all factors that have a significant influence on the development of educational aspirations. For example, being a woman increases the probability of reporting descending educational aspirations that remain at the university level; having parents who pursued postsecondary studies has more or less the same effect. For young people coming from rural areas, it appears that the majority of them have descending aspirations going from a college level to a high school level education.

Table 9**Multivariate Analysis (Multinomial Logistic) for the Evolution of Descending Aspirations (Descending Slopes) YITS, Canada, Cohort A**

Reference Category: Descending Aspirations, College towards High School Studies

	Descending aspirations - graduate and postgraduate studies towards undergraduate studies		Descending aspirations - undergraduate studies towards college studies	
	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Gender				
Men	Ref.	Ref.	Ref.	Ref.
Women	1.87***	2.36***	1.94***	2.13***
Parents' socio-occupational category				
Management	0.56**	0.96	1.09	1.53
Owner	0.91	1.53	1.42	1.94*
Salaried professional	0.54	0.70	1.03	1.57
Liberal profession	Ref.	Ref.	Ref.	Ref.
Salaried white-collar	0.39***	0.70	1.10	1.45
Self-employed white-collar	0.23***	0.68	0.52	0.44
Blue-collar	0.47*	0.31*	0.42*	0.78
Artisan	0.20***	1.15	0.65	0.90
Unemployed	0.39	0.38**	0.60	0.80
First-generation student				
FGS	Ref.	Ref.	Ref.	Ref.
Non-FGS college	2.58***	2.55***	2.30***	2.49***
Non-FGS university	15.12***	6.81***	4.88***	3.34***
Place of residence				
Rural area	0.39***	0.44***	0.61**	0.58**
Urban area	Ref.	Ref.	Ref.	Ref.
Type of high school				
Private	Ref.	Ref.	Ref.	Ref.
Public	0.33***	0.55	0.80	1.18
Perception of self-efficacy	2.16***	1.48***	1.38***	1.09
Self-esteem	1.55***	1.08	1.33***	1.09
Social engagement	1.22**	1.03	1.19*	1.07
Academic engagement	2.78***	1.17	1.08***	1.11
Average score in mathematics				
90-100%	14.79***	2.24	2.89**	1.17
80-89%	4.41***	2.07*	1.77*	1.14
70-79%	3.19***	1.67	2.14***	1.25
60-69%	1.51	1.09	1.18	0.78
Less than 60%	Ref.	Ref.	Ref.	Ref.

	Descending aspirations - graduate and postgraduate studies towards undergraduate studies		Descending aspirations - undergraduate studies towards college studies	
	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Average score in languages				
90-100%	80.32***	7.26***	16.86***	4.60**
80-89%	19.05***	4.12***	8.44***	3.87***
70-79%	6.16***	2.03*	4.39***	2.42***
60-69%	2.04*	1.05	2.39***	1.65*
Less than 60%	Ref.	Ref.	Ref.	Ref.
Average score in sciences				
90-100%	32.08***	4.03*	4.68***	2.05
80-89%	8.37***	1.89	3.46***	1.78
70-79%	2.91***	1.08	2.02**	1.22
60-69%	1.89*	1.00	1.42	0.90
Less than 60%	Ref.	Ref.	Ref.	Ref.
Time spent on homework per week				
Less than an hour	Ref.	Ref.	Ref.	Ref.
1 to 3 hours	3.10***	1.92*	2.13***	1.47
4 to 7 hours	11.23***	3.92***	5.16***	2.42**
8 hours or more	19.01***	5.58***	5.36***	2.79*
Dropout status				
Yes	Ref.	Ref.	Ref.	Ref.
No	13.29***	6.42***	6.97***	3.80***
Fell behind				
Yes	Ref.	Ref.	Ref.	Ref.
No	6.32***	4.34***	3.30***	1.85*
Variables	Type 1	Types 1 & 2	Types 1, 2 & 3	
Pseudo-R ²	0.0974	0.1628	0.2290	
χ^2 wald	312.91***	433.56***	587.39***	
DF	26	34	68	
N	3419	3323	3065	

Notes: p (significance index): * p < 0.05; ** p < 0.01; *** p < 0.001.

Note: unadjusted effect is the "multivariate" analysis between the independent variable and a dependent variable (i.e. by excluding all other variables from the model).

4.1.3 Ascending Aspirations

Three types of evolution of aspirations were considered in the analysis of ascending slopes: aspirations for high school studies changing into aspirations for college level studies (the reference situation), aspirations for college level studies changing into aspirations for undergraduate level studies and aspirations for undergraduate level studies changing into aspirations for graduate and postgraduate levels studies (see Table 10).

Ascending aspirations leading to undergraduate studies differ little from the reference ascending aspirations with the exception of the effect of the Place of residence and Fell behind variables. Indeed, given that students coming from a rural environment do not often report postsecondary education

aspirations, there is only a slight probability that they will join the ranks of those who will revise their college or university aspirations upwards. Furthermore, it is those respondents who did not report falling behind that are more likely to complete university studies.

The variables that affect aspirations ascending towards undergraduate level studies are more significant. The most significant factors are Gender, First-generation student status, Place of residence, Perception of self-efficacy, Feeling of competency, Dropout status, Fell behind and Average scores in mathematics and sciences. Depending on the value, these variables motivate young students who were aspiring to undergraduate level studies to later aspire to graduate and postgraduate levels studies.

Table 10**Multivariate Analysis (Multinomial Logistic) for Ascending Aspirations Situations (Ascending Slopes) YITS, Canada, Cohort A**

Reference Category: Ascending Aspirations, High School Studies towards College Studies

	Ascending aspirations – undergraduate level studies towards graduate and postgraduate studies		Ascending aspirations – college level studies towards university studies	
	Unadjusted effects OR	Complete model OR	Unadjusted effects OR	Complete model OR
Gender				
Men	Ref.	Ref.	Ref.	Ref.
Women	1.96***	2.15***	1.20	1.25
Parents' socio-occupational category				
Management	0.57**	0.80	0.93	0.84
Owner	0.57*	0.59	0.76	0.62
Salaried professional	1.33	0.84	2.75	1.84
Liberal profession	Ref.	Ref.	Ref.	Ref.
Salaried white-collar	0.31***	0.72	0.69	0.80
Self-employed white-collar	0.44*	1.03	1.50	1.59
Blue-collar	0.29***	0.63	0.46*	0.50
Artisan	0.26***	0.52	0.75	0.76
Unemployed	0.40	0.74	0.53	0.72
First-generation student				
FGS	Ref.	Ref.	Ref.	Ref.
Non-FGS college	2.70***	2.42***	1.11	0.98
Non-FGS university	9.47***	5.21***	1.56*	1.03
Place of residence				
Rural areas	0.35***	0.35***	0.47***	0.49***
Urban area	Ref.	Ref.	Ref.	Ref.
Type of high school				
Private	Ref.	Ref.	Ref.	Ref.
Public	0.21***	0.33**	0.45**	0.48*
Perception of self-efficacy	2.31***	1.45***	1.40***	1.20*
Self-esteem	1.72***	1.20	1.40***	1.27**
Social engagement	1.45***	1.10	1.23**	0.97
Academic engagement	2.38***	0.99	1.23***	0.97
Average score in mathematics				
90-100%	15.30***	1.63	1.66	0.77
80-89%	11.72***	2.59**	3.15***	1.54
70-79%	3.38***	1.75**	1.85**	1.47
60-69%	2.19**	1.42	2.21***	1.69*
Less than 60%	Ref.	Ref.	Ref.	Ref.

	Ascending aspirations – undergraduate level studies towards graduate and postgraduate studies		Ascending aspirations – college level studies towards university studies	
	Unadjusted effects OR	Complete model OR	Unadjusted effects OR	Complete model OR
Average score in languages				
90-100%	36.11***	4.94**	2.32	1.80
80-89%	27.30***	3.28**	3.29***	1.82*
70-79%	7.43***	2.21*	2.55***	1.66*
60-69%	2.21**	1.10	1.85**	1.45
Less than 60%	Ref.	Ref.	Ref.	Ref.
Average score in sciences				
90-100%	46.29***	5.05***	2.73**	1.17
80-89%	21.46***	4.03***	2.85***	1.34
70-79 %	6.91***	2.60**	2.53***	1.18
60-69 %	2.97***	1.48	1.58*	0.94
Less than 60%	Ref.	Ref.	Ref.	Ref.
Time spent on homework per week				
Less than an hour	Ref.	Ref.	Ref.	Ref.
1 to 3 hours	2.30***	1.34	1.51*	1.29
4 to 7 hours	5.32***	1.78*	2.17***	1.38
8 hours or more	12.24***	2.01	2.70**	1.24
Dropout status				
Yes	Ref.	Ref.	Ref.	Ref.
No	70.18***	18.95**	2.94***	1.69
Fell behind				
Yes	Ref.	Ref.	Ref.	Ref.
No	8.22***	5,01***	3,48**	6,84***
Variables	Type 1	Types 1 & 2	Types 1, 2 & 3	
Pseudo-R ²	0.0924	0,1515	0,2356	
χ^2 wald	280.78***	377,07***	539,08***	
DF	26	34	68	
N	3440	3344	3106	

Notes: p (significance index): * p < 0.05; ** p < 0.01; *** p < 0.001.

Note: unadjusted effect is the “multivariate” analysis between the independent variable and a dependent variable (i.e. by excluding all other variables from the model).

4.1.4 Summary

It should be noted that the different variables used in the analysis stem from cycle 1 of the YITS and that educational aspiration slopes were established on the basis of aspirations reported during cycles 2, 3 and 4 of the survey. We are thus studying the respondents' aspirations as influenced by events or situations experienced at the age of 15. This influence might continue up 6 years later.

In summary, results show that average scores in mathematics at the age of 15 have practically no significant influence on realistic educational aspiration slopes despite the fact that the analysis of the unadjusted effects revealed one. Conversely, the average scores reported in languages and sciences had, for their part, a significant effect. The higher these scores were, the higher the aspirations. We also observe that dropping-out, falling behind and hours spent on homework are significant factors. Consequently, past school experiences play a predominant role in the development of educational aspirations.

For their part, social affiliations (parents' income and socio-occupational category) do not have a significant influence on aspiration slopes.

Nevertheless, we observe an influence on aspiration slopes stemming from socio-cultural characteristics (gender, FGS status) and from the place of residence. When we analyze "constant" or "fixed" aspirations, we note a clear difference between university education aspirations and college and high school education aspirations. The three factors—FGS, gender and place of residence—have an impact on the development of university educational aspirations but not on the development of college or high school educational aspirations. We should also note that these three factors have an influence on the ascending and descending aspirations that involve university studies.

Finally, the multivariate analysis shows that, overall, students' psychosocial characteristics have little influence on the evolution of educational aspirations. However, the perception of self-efficacy has a significant influence on aspirations that pertain to university studies.

4.2 The Evolution of the Slopes According to the Level of Aspirations

The preceding analysis does not allow for a precise identification of the factors that have an influence on the evolution of aspirations. This is because these factors basically have more of an influence on setting the level of the aspirations, something that is particularly noticeable in the case of university aspirations. We will thus complete the analysis by comparing the differentiated evolution of aspirations according to their level.

The analysis compares groups of slopes that have the same educational aspiration at cycle 2 of the YITS as a starting point, but that do not have the same type of evolution in subsequent years. On the basis of this common starting point, we will endeavour to more clearly isolate the factors that have an influence on the evolution of aspirations.

The following section encompasses two parts that can be labelled by the level of aspirations expressed at cycle 2 of the YITS, i.e. aspirations toward college studies and aspirations toward undergraduate level studies. These two aspirations are associated with three different types of slopes: ascending, fixed and descending. However, the concept of aspiration slopes, as it was developed, does not enable us to fully compare the other type of aspirations (high school and graduate/postgraduate levels of studies) given that it is impossible to aspire to a lower level of education than high school (descending slope) or to a higher level of education than the graduate and postgraduate levels (ascending slope).

In both of the cases examined, we used the descending slopes as our reference situation in the analysis. Two issues directed our observation:

- Which factors influence the constancy or the warming-up of the aspirations as opposed to their cooling-out?
- Which of the factors only influence the ascending evolution of the aspirations?

4.2.1 The Differentiated Evolution of Aspirations for College Studies (Cycle 2 of the YITS)

Overall, the analysis of the evolution of the individual sequences of the realistic aspiration slopes underscores the input of socio-cultural factors and of factors associated with past school experiences in the variation of aspirations (Table 11).

The answer to the first question is easy: two factors have an influence on both types of evolution; the FGS status (the non-FGS have a higher probability of expressing fixed aspirations or an ascending evolution) and not having fallen behind. A number of other factors only have an influence on aspirations with an ascending slope. They are the gender, the place of residence (negative effect), the average score in languages and the time spent on homework. Furthermore, the absence of dropping-out periods sets fixed aspirations apart from aspirations with a descending slope.

Table 11**Multivariate Analysis (Multinomial Logistic) to Compare Aspirations for College Level Studies at Cycle 2 of the YITS, Canada, cohort A**

Reference Category: Descending Aspirations from College Studies to High School Studies

	Ascending aspirations from college to university studies		Fixed aspirations College studies	
	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Gender				
Men	Ref.	Ref.	Ref.	Ref.
Women	1.76***	1.98***	1.25	1.33
Parents, socio-occupational category				
Management	1.01	1.53	1.10	1.46
Owner	0.95	0.9	1.09	1.12
Salaried professional	0.91	1.77	0.44	0.78
Liberal profession	Ref.	Ref.	Ref.	Ref.
Salaried white-collar	0.83	1.20	1.14	1.45
Self-employed white-collar	0.64	0.58	0.57	0.49*
Blue-collar	0.38**	0.55	0.86	1.19
Artisan	0.53*	0.86	0.84	1.19
Unemployed	0.47	0.86	1.07	1.51
First-generation student				
FGS	Ref.	Ref.	Ref.	Ref.
Non-FGS college	1.57***	1.46*	1.74***	1.81***
Non-FGS university	3.39***	2.81***	2.23***	2.10***
Place of residence				
Rural areas	0.49***	0.43***	1.11	1.05
Urban area	Ref.	Ref.	Ref.	Ref.
Type of high school				
Private	Ref.	Ref.	Ref.	Ref.
Public	0.61	1.03	0.98	1.43
Perception of self-efficacy	1.36**	1.27*	1.04	1.05
Self-esteem	1.26**	1.11	1.01	0.91
Social engagement	0.96	0.84	0.93	0.96
Academic engagement	1.59***	0.94	1.28**	1.07
Average score in mathematics				
90-100%	2.64**	0.92	1.53	0.75
80-89%	2.35**	1.50	1.13	0.93
70-79%	2.90***	1.87**	1.50*	1.13
60-69%	1.74**	1.47	1.03	0.84
Less than 60%	Ref.	Ref.	Ref.	Ref.

	Ascending aspirations from college to university studies		Fixed aspirations College studies	
	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Average score in languages				
90-100%	12.30***	5.74**	5.34***	4.13*
80-89%	5.59***	2.91***	2.64***	1.92*
70-79%	3.72***	1.96**	1.91***	1.45
60-69%	2.28***	1.87*	1.38	1.30
Less than 60%	Ref.	Ref.	Ref.	Ref.
Average score in sciences				
90-100%	3.94**	1.87	1.97	1.31
80-89%	3.48***	1.72	1.74*	1.28
70-79%	2.05*	1.05	1.22	0.98
60-69%	1.53	1.11	1.18	0.89
Less than 60%	Ref.	Ref.	Ref.	Ref.
Time spent on homework per week				
Less than an hour	Ref.	Ref.	Ref.	Ref.
1 to 3 hours	2.04***	2.19***	1.59**	1.48*
4 to 7 hours	4.57***	3.59***	2.82***	1.93*
8 hours or more	4.65***	3.77**	2.28*	1.97
Dropout status				
Yes	Ref.	Ref.	Ref.	Ref.
No	3.2**	1.71	3.78***	2.63**
Fell behind				
Yes	Ref.	Ref.	Ref.	Ref.
No	4.28***	5.70***	2.56***	2.09**
Variables	Type 1	Types 1 & 2	Types 1, 2 & 3	
Pseudo-R ²	0.0345	0.0567	0.0936	
χ^2 wald	133.77***	228.76***	321.20***	
DF	26	34	68	
N	4183	4002	3637	

Notes: p (significance index): * p < 0.05; ** p < 0.01; *** p < 0.001.

Note: unadjusted effect is the “multivariate” analysis between the independent variable and a dependent variable (i.e. by excluding all other variables from the model).

4.2.2 The Differentiated Evolution of Aspirations for Undergraduate Level Studies (Cycle 2 of the YITS)

What about the aspirations for university studies (Table 12)? The results are very different from those shown in the preceding section. The analysis of the variables explains to a larger extent the variation within the same group of slopes (e.g. the ascending slopes compared one with another) than the variation between different groups of slopes (comparison between ascending, fixed or descending slopes).

Hence, being female or a FGS, having attended a private high school, the perception of self-efficacy, having good average scores in mathematics and sciences, spending more time on homework and not

having fallen behind in school increase the probability of maintaining aspirations for university studies or of expressing ascending aspirations.

Two factors have a negative influence on the evolution of an ascending slope: the parents' social status and the place of residence. Having parents that are white-collar or artisans reduces the probability of expressing the desire to pursue graduate and postgraduate level studies as does residing in a rural area.

It should also be noted that, contrary to the results of previous analysis, the average score in languages is not significant here. It has no influence on expressing ascending aspirations towards undergraduate level studies.

Table 12**Multivariate Analysis (Multinomial Logistic) to Compare Aspirations for Undergraduate Level Studies at Cycle 2 of the YITS, Canada, cohort A**

Reference Category: Descending Aspirations – Undergraduate Level

	Ascending aspirations Undergraduate level		Fixed aspirations Undergraduate level	
	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Gender				
Men	Ref.	Ref.	Ref.	Ref.
Women	1.47***	1.73***	1.28**	1.36**
Parents, socio-occupational category				
Management	0.56***	0.69*	0.63***	0.71*
Owner	0.50***	0.64*	0.63**	0.71
Salaried professional	0.42*	0.48	0.78	0.76
Liberal profession	Ref.	Ref.	Ref.	Ref.
Salaried white-collar	0.33***	0.51**	0.47***	0.64*
Self-employed white-collar	0.36***	0.86	0.62*	1.07
Blue-collar	0.56*	0.82	0.73	0.88
Artisan	0.28***	0.39***	0.58**	0.71
Unemployed	0.59	0.88	0.78	0.85
First-generation student				
FGS	Ref.	Ref.	Ref.	Ref.
Non-FGS college	1.65**	1.45*	1.15	1.07
Non-FGS university	4.2***	2.86***	2.38***	1.91***
Place of residence				
Rural areas	0.60***	0.60***	0.86	0.84
Urban areas	Ref.	Ref.	Ref.	Ref.
Type of high school				
Private	Ref.	Ref.	Ref.	Ref.
Public	0.36***	0.44***	0.57**	0.66*
Perception of self-efficacy	1.68***	1.43***	1.32***	1.23**
Self-esteem	1.13*	1.01	1.01	0.93
Social engagement	0.95	0.89	0.90*	0.90
Academic engagement	1.52***	0.90	1.33***	1.03
Average score in mathematics				
90-100%	8.44***	2.05**	4.60***	2.14**
80-89%	4.93***	2.09**	2.95***	1.90***
70-79%	2.46***	1.52	1.92***	1.56**
60-69%	1.45	1.31	1.52*	1.61**
Less than 60%	Ref.	Ref.	Ref.	Ref.

	Ascending aspirations Undergraduate level		Fixed aspirations Undergraduate level	
	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR	UNADJUSTED EFFECTS OR	COMPLETE MODEL OR
Average score in languages				
90-100%	11.34***	2.25*	4.73***	1.36
80-89%	5.48***	1.59	2.88***	1.18
70-79%	2.47**	1.27	1.76**	1.01
60-69%	1.14	0.81	1.18	0.81
Less than 60%	Ref.	Ref.	Ref.	Ref.
Average score in sciences				
90-100%	14.22***	3.61***	5.61***	2.17**
80-89%	7.55***	2.65**	3.58***	1.81**
70-79%	2.76***	1.68	1.76**	1.22
60-69%	2.02*	1.90*	1.33	1.16
Less than 60%	Ref.	Ref.	Ref.	Ref.
Time spent on homework per week				
Less than an hour	Ref.	Ref.	Ref.	Ref.
1 to 3 hours	1.46**	1.46*	1.75***	1.61**
4 to 7 hours	2.16***	1.97**	2.04***	1.69**
8 hours or more	3.93***	2.50**	2.91***	1.99**
Dropout status				
Yes	Ref.	Ref.	Ref.	Ref.
No	10.95***	4.27	2.18	1.60
Fell behind				
Yes	Ref.	Ref.	Ref.	Ref.
No	3.32***	2.07*	2.87***	2.32**
Variables	Type 1	Types 1 & 2	Types 1, 2 & 3	
Pseudo-R ²	0.0318	0.0517	0.0830	
χ^2 wald	200.13***	308.42***	469.79***	
DF	26	34	68	
N	6519	6374	6024	

Notes: p (significance index): * p < 0.05; ** p < 0.01; *** p < 0.001.

Note: unadjusted effect is the "multivariate" analysis between the independent variable and a dependent variable (i.e. by excluding all other variables from the model).

4.2.3 Summary

This section emphasizes more clearly the influence of the different factors on the evolution of educational aspirations. Overall, results reveal an important difference according to the “starting point” of the evolution of aspirations.

For example, in the case of aspirations pertaining to college studies, two factors distinguish the fixed or ascending aspirations from the descending aspirations: the student’s FGS status and not having fallen behind in school. All the other factors that have a significant influence only affect aspirations with an ascending slope. Being female, having a

good average score in languages and spending more time on homework may open an avenue towards university studies. Conversely, residing in a rural area may have the opposite effect.

Analysing university aspirations reveals a whole different situation: the majority of the variables “protect” respondents from slipping towards college studies (descending slope). Only two factors decrease the probability of expressing ascending aspirations: a modest social background and residing in a rural area.

5. Conclusion: Some Avenues of Interpretation

The objective of this study was to examine the relationship between the social affiliation and educational aspirations of young Canadians who were 15 years old on December 31, 1999, and who were the subject of a longitudinal follow-up until the age of 22. We wanted to examine a particular aspect of educational pathways, i.e. the evolution of educational aspirations throughout the reference period. Some research have emphasized that aspirations are an important driving factor behind actions taken to access and persist in postsecondary education. However, contrary to other elements that influence access and persistence, aspirations can change over time because new situations can lead individuals to change them. There is little research on this issue, thus the interest in trying to gain a better understanding of the evolution of aspirations. The approach we chose was to explore the influence of cultural and educational backgrounds on “realistic” educational aspirations.

We retained three groups of variables for this purpose. The first encompasses sociocultural and socio-economic variables associated with the social background of an individual: gender, social status (parents’ socio-occupational category), income, parents’ education—that determines the first-generation student (FGS) status—and the place of residence. The second group encompasses psychosocial variables that are more directly linked to character traits: the perception of self-efficacy, self-esteem, social and academic engagement. Finally, the third group describes the high school experience: average scores, time spent on homework,

dropout status, remedial courses and academic problems. A number of findings result from this analysis.

a) Numerous Changes in Aspirations

The first finding relates to the importance of the changes in aspirations during the period of reference. The analysis of the distribution of the aspirations in the different cycles of the survey brings us to the conclusion that there is a strong constancy of aspirations during the six years of observation. But, in reality, the changes are clearly more frequent than what the distribution suggests at first sight. Hence close to half (48%) of the students reported an evolution in their aspirations: half of these changes concerned a decrease in aspirations, what Clark (1960) would call a “cooling-out”, while the rest of the changes concerned a “warming-up” of aspirations in keeping with the expression proposed by Bélanger (1986).

b) Factors Explaining the Level of Aspirations Rather than Their Evolution

Another of our findings suggests that the variables retained provide a better portrait of the level of aspirations than of their evolution. For example, there are as many male students as there are female students having fixed aspirations. Conversely, we observe that there are proportionally more women than men wishing to pursue university studies, the latter aspiring in greater numbers to a high school

or a college education. A similar situation can be observed according to socio-occupational categories: differences between categories are slight when fixed aspirations are aggregated; conversely, gaps are more significant when we consider fixed university aspirations separately from lower level aspirations.

These results show that the logic at work in access to postsecondary education is also found with respect to aspirations. For example, the logic of social reproduction is perceptible in the distribution of aspirations according to socio-occupational categories while the logic of academic engagement is found in the differences between genders.

The minimal influence of cultural and educational backgrounds on the evolution of aspirations may be explained by the fact that these changes are related, at least partially, to the nature of current school and social experiences, dimensions of the educational pathways that we did not factor into the analysis. That being said, do some of these factors have an influence nevertheless?

We looked at the warming-up of aspirations by examining ascending evolutions of aspirations. In this regard, the passage from aspirations for an undergraduate level education to aspirations for graduate and postgraduate levels of education, in comparison to descending aspirations (from university level aspirations to lower levels of education) is positively influenced by several factors: being female, not being a FGS (family's educational capital), the perception of self-efficacy, having good grades in high school, not falling behind academically and spending greater amounts of time on homework. All of these factors increase the probability of following an ascending evolution. Conversely, residing in a rural area or belonging to certain underprivileged social groups will decrease this probability.

In the case of the passage from college education aspirations to a university education aspirations, there are fewer influencing factors: being a woman, not being a FGS, spending greater amounts of time on homework in high school and not falling behind academically are all variables that increase the probability of having ascending aspirations. Some

of these factors are related to the student's socio-cultural affiliations and others to the development of more effective study practices in high school. Residing in a rural area has a negative influence on the probability of ascending aspirations. The same factors influence the warming-up of aspirations for university studies. The wish to pursue university studies at the graduate and postgraduate levels is, furthermore, influenced by character traits (perception of self-efficacy) and by the average scores obtained in high school in mathematics and sciences. The warming-up of aspirations towards graduate and postgraduate studies is related to a more extensive series of factors.

A second question must be considered: are the factors that influence the warming-up of educational aspirations different from those that influence their constancy? In the case of ascending aspirations leading to university, we observe differences with regard to four factors. Warming-up is positively influenced by being female and spending more time on homework in high school while the expression of fixed aspirations for a college education is not influenced by these two variables. Having temporarily dropped out of school does not influence the expression of an ascending slope but it does have some bearing on the constancy of aspirations. Finally, residing in a rural area decreases the expression of ascending aspirations and does not influence the constancy of aspirations. In the case of ascending aspirations towards university studies and of fixed aspirations, the same variables have an influence on the situations. There is only one noteworthy exception: the fact of residing in a rural area decreases the expression of ascending aspirations. However, we have especially observed that the weight of each of these variables is more important in situations of the warming-up of aspirations.

Our main conclusion is that, when analyzing the evolution of aspirations, we cannot disregard the level of these aspirations because the dimensions leading to the warming-up of aspirations towards university studies are different from those that have an influence on aspirations for lower levels of education. In this regard, we observe that social

background, high school experiences, the place of residence and certain personality traits have an influence that is all the more important since the level of aspirations in question is high.

c) Factors Involved in the Expression of Aspirations

A third observation more specifically concerns the dimensions that influence the level of the aspirations expressed by respondents. In this regard, we must emphasize that expressing aspirations is more closely related to socio-cultural factors than socio-economic ones. Hence, social background, viewed from the angle of belonging to a class segment, has an influence on the expression of aspirations. However, its effect disappears when the other dimensions are taken into account in the analysis, something that indicates that its influence works through other channels including socio-cultural dimensions and the characteristics of high school education.

The place of residence is the only variable related to living conditions that has a significant effect on the formulation of aspirations. We observed that living in a rural area decreases the probability of expressing an aspiration for a university education. If the differences between urban and rural environments are often explained in terms of differentiated aspirations, our analysis brings us to question the opposite relationship: how does the place of residence lead individuals to formulate different or lower educational aspirations? Are these individuals adapting their aspirations to education opportunities that are available locally because they do not wish to move away from their environment? Do they adapt their educational aspirations to the regional economic structure for the same reasons?

The gender effect (i.e. being female) on aspirations, that we consider as part of the influence of socio-cultural characteristics, is closely linked to university aspirations as stated by several authors (Covell, 2009; Melanson and Levin, 2007; Marjoribanks, 2005; HRSDC, 2004). However, the gender effect is not linked to the formulation of lower aspirations. The mobilization movement for

women's education, which is itself part of the feminist movement, is reflected by a greater propensity of female students expressing aspirations for university studies, and often for graduate and postgraduate studies.

The parents' educational capital is also among socio-cultural variables. Having parents that received a postsecondary education, especially a university education, may foster in young Canadians the development of action plans and the expression of postsecondary education aspirations, particularly at the university level. We are indeed witnessing the transmission of cultural heritage that is part of a logic of social reproduction.

Results also indicate that high school experiences have an influence on the evolution of aspirations, but that these experiences do not cancel out the influence of cultural heritage. We also noted that the higher the educational aspirations, the higher the number of elements in high school experiences that have a significant influence on the expression of these aspirations.

High school education plays a role through the intellectual achievements as measured by the results reported. The influence of these assets is especially noticeable in the expression of university aspirations and even in the expression of graduate and postgraduate education aspirations. The subject matters have a different effect, because it is the grades obtained in languages or sciences that influence the expression of university aspirations. Language proficiency is an essential skill in the pursuit of an education, while in sciences, there is a sharp learning curve as a student progresses through high school, pre-university and university. The lack of influence of mathematics scores may result from the combination of two features: though mathematics is not used in a number of university-level fields of study, it is part of a great number of college-level curricula (a number of technical fields use mathematics to a large extent). Hence, the combination of these two features is behind the lack of association between mastering mathematics and a specific level of aspirations. The fact that average scores obtained in mathematics have a significant influence on university aspirations only with respect

to descending slope aspirations shows the importance of this discipline in the formulation of hopes to remain in university and to pursue studies at that level.

The type of high school has a different influence with respect to university aspirations: having attended a public rather than a private school decreases the probability of expressing university aspirations, regardless of the aspirations slope. It is possible that private schools put so much emphasis on the importance of a university education that students who attend these schools are conditioned to have only university aspirations, if not graduate and postgraduate levels aspirations.

We also observed that an education that includes episodes of dropping out or falling behind has an influence on the formulation of educational aspirations. The wish to pursue studies beyond high school is favourably influenced by the absence of such episodes.

The last aspect of high school experience that we examined is study practices. The expression of university aspirations is related to the number of hours spent on homework in high school. Hence, it is fostered by acquiring, at an early stage in the educational pathway, the capacity of studying on a regular basis outside the classroom. The effect of past school experiences on the development of aspirations is not only due to the nature of academic achievements, an explanation that naturally comes

to mind. In fact, the type of pathway, where the education took place and the character traits acquired through study practices are all aspects of school experience that contribute to the building of aspirations.

The formulation of university aspirations is also related to personality traits, the perception of self-efficacy being the most frequent. It is particularly important where aspirations to graduate and postgraduate studies are concerned.

In summary, the formulation of educational aspirations is a process that involves a number of social and educational dimensions. In this respect, this process is anchored to a large extent in the individuals' life experiences at the social and educational levels. We also emphasized that the higher the aspirations, the larger the number of dimensions that have a significant influence on the formulation of aspirations: social affiliation and cultural background, personality traits and school experiences are all contributing factors.

This analysis opens two avenues. On one hand, there is a need to explore the effect of current experiences on the evolution of aspirations in greater depth. On the other hand, there is a need to examine the relationship between aspirations and educational practices more carefully and to ask ourselves if changes in aspirations also have an influence on changes that take place in young Canadians' educational pathways.

Bibliography

Adelman, Clifford (2002). "The Relationship Between Urbanicity and Educational Outcomes". In W.G. Tierney and L.S. Hagedorn (Eds.), *Increasing Access to College: Extending Possibilities for All Students* (pp. 35-64). New York: SUNY Press.

Ali, S.R., McWhirter, E.H. (2006). "Rural Appalachian Youth's Vocational/Educational Post-secondary Aspirations: Applying Social Cognitive Career Theory". *Journal of Career Development*, 33, 87-111.

Ali, S.R., Saunders, J.L. (2006). "College expectations of rural Appalachian youth: An exploration of Social Cognitive Career Theory Factors". *Career Development Quarterly*, 55, 38-51.

Anctil, Mélanie (2006). *Les nouvelles générations et le sens du travail. Des jeunes en quête d'expressivité au travail et d'un plus grand équilibre dans la vie*, Maîtrise en sociologie, Université Laval, [PDF] <http://www.collectionscanada.gc.ca/obj/s4/f2/dsk3/QLLA/TC-QLLA-23823.pdf> (Document accessed on 2009-06-26).

Andres, L., Anisef, P., Krahn, H., Looker, D., and Thiessen, V. (1999). "The Persistence of Social Structure: Cohort, Class and Gender Effects on the Occupational Aspirations and Expectations of Canadian Youth". *Journal of Youth Studies*, 2(3), 261.

Andres, L., and Looker, E. D. (2001). "Rurality and capital: Educational expectations and attainments of rural, Urban/Rural and metropolitan youth". *Canadian Journal of Higher Education*, 31(2), 1-45.

Anisef, P., Sweet, R., Plickert, G., and Tom-Kun, D. (2001). *The effects of region and gender on educational planning in Canadian families*. Laidlaw Foundation and The Learning and Literacy Branch, HRDC, Ottawa , Human Resources and Skills Development Canada.

Anguita, Juana (1976). «Aspirations éducatives et culturelles», in *Transformations de l'environnement, des aspirations et des valeurs*, in Paul-Henry Chombart Delauwe (dir.), Paris, Éditions du centre national de la recherche scientifique, pp. 186-197.

Armstrong, P.I., and Crombie, G. (2000). "Compromises in adolescents' occupational aspirations and expectations from grades 8 to 10". *Journal of Vocational Behavior*, 56, 82-98.

Arnold, M. L., Newman, J. H., Gaddy, B. B., and Dean, C. B. (2005). "A look at the condition of rural education research: Setting a direction for future research". *Journal of Research in Rural Education*, 20(6), 1-25.

Bandura, A. (1993). "Perceived self-efficacy in cognitive development and functioning". *Educational Psychologist*, 28(2), 117-148.

Barry, C. M., and Wentzel, K. R. (2006). "Friend influence on prosocial behavior: The role of motivational factors and friendship characteristics". *Developmental Psychology*, 42(1), 153-163.

Barr-Telford, L., Cartwright, F., Prasil S., and mmons, K. (2003). *Access, Persistence and Financing: First Results from the Postsecondary Education Participation Survey (PEPS)*, Catalogue no 81-595-MIE2003007, Statistics Canada, Ottawa, *Education, training and learning*, latest issue no 7.

- Battistich, V., Solomon, D., Kim, D., Watson, M., and Schaps, E. (1995). "Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis". *American Educational Research Journal*, 32, 627-658.
- Blum, R.W., and Libbey, H. P. (2004). "Executive summary". *The Journal of School Health*, 74(7), 231-234.
- Bédard, Robert, Béland, Paul, Bélanger, Pierre W., Roberge, Pierre, Rocher, Guy (1981). *Le projet ASOPE: son orientation, sa méthodologie, sa portée sociale et ses réalisations*, Les Cahiers d'ASOPE, vol. VII, Québec: Faculté des sciences de l'éducation, Université Laval; Montréal: Département de sociologie, Université de Montréal, 275 pages.
- Belanger, Pierre W., (1986). «La réponse du Québec aux problèmes d'équité et d'excellence dans l'enseignement postsecondaire», *Recherches Sociographiques*, vol. XXVII, no 3, pp. 365-384.
- Beret, Pierre (1986). «Les projets scolaires : Contribution à une théorie de l'acteur dans le système éducatif», *Formation – Emploi*, no 13, pp. 15-23.
- Bernier, Léon (1986). *Tant qu'ils choisiront de vieillir... Point de vue sur les aspirations des jeunes*, [PDF] http://classiques.ugac.ca/contemporains/bernier_leon/tant_ils_choisiront_de_vieillir/tant_choisiront_veillir.pdf (Document accessed on 2009-05-25).
- Boudon, Raymond (2003). *Raisons Bonnes Raisons*, Paris, Presses universitaires de France.
- Boudon, Raymond, Cuin, Charles-Henri, Massot, Alain (2000). *L'axiomatic de l'inégalité des chances*, Québec, Les Presses de l'Université Laval and Paris, L'Harmattan.
- Bourdieu, Pierre (1994). *Raisons pratiques*, Paris, Seuil.
- Bourdieu, Pierre (1980). *Le sens pratique*, Paris, Editions de Minuit.
- Bourdieu, Pierre and Passeron, Jean-Claude (1970). *La reproduction: élément d'une théorie du système d'enseignement*, Paris, Editions de Minuit.
- Bourdieu, Pierre and Passeron, Jean-Claude (1964). *Les héritiers. Les étudiants et la culture*, Paris, Editions de Minuit.
- Butlin, G. (1999). «Déterminants de la poursuite d'études postsecondaires», *Revue trimestrielle de l'éducation*, 5(3), 9-35.
- Cantara, Marilyn (2008). *Exploration des facteurs influençant la motivation scolaire de l'étudiante et de l'étudiant lors de l'apprentissage dans un cours offert en ligne*, Essai présenté à la Faculté d'éducation en vue de l'obtention du grade de Maître en éducation (M.Ed.), [PDF] http://www.cdc.qc.ca/pdf/786882_cantara_essai_MA_usherbrooke_2008.pdf (Document accessed on 2009-06-15).
- Charbonneau, Johanne (2006). «Réversibilités et parcours scolaires au Québec», *Cahiers internationaux de sociologie* 2006/1, n° 120: 111-131; http://www.cairn.info/article.php?ID_ARTICLE=CIS_120_0111 (Document accessed on 2009-06-20).
- Chinwe J. Uwah, H. George McMahon and Carolyn F. Furlow. (2008). "School Belonging, Educational Aspirations, and Academics Self-Efficacy Among African American Male High School Students: Implications for School Counselors". *ASCA Professional School Counseling*, Vol. 11, no 5, pp. 296-306.

- Chombart de Lauwe, Paul-Henry (1970). *Aspirations et transformations sociales*, Paris, Editions Anthropos.
- Chombart de Lauwe, Paul-Henry (1971). *Pour une sociologie des aspirations: éléments pour des perspectives nouvelles en sciences humaines*, Paris, Editions Denoël, 2nd ed.
- Chombart de Lauwe, Paul-Henry (1976). *Transformations de l'environnement des aspirations et des valeurs*, Paris, Editions du Centre national de la recherche scientifique.
- Clark, Burton R. (1960). "The 'cooling-out' function in Higher Education". *American Journal of Sociology*, vol. 65, no 6, pp. 569-576.
- Cobb, R. A., McIntire, W. G., and Pratt, P. A. (1989). "Vocational and educational aspirations of high school students: A problem for rural America". *Journal of Research in Rural Education*, 6(2), 11-16.
- Connell, J. P., and Wellborn, J. G. (1991). *Competence, autonomy, and relatedness: A motivational analysis of self-system processes*. Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.
- Canadian Council on Learning (2006, December). *Report on Learning in Canada 2006, Canadian Post-secondary Education: A Positive Record – An Uncertain Future*. [<http://www.ccl-cca.ca>]
- Cook, Thomas D., Church, Mary B., Ajanaku, Subira, Shadish, William, R. Jr. et al. (1996). "The development of occupational aspirations and expectations among inner-city boys". *Child Development*. 67(6), 3368-3385.
- Covell, Katherine "Implications of social supports for adolescents' education and career aspirations". *Canadian Journal of Behavioural Science*. FindArticles.com. 10 Feb, 2009.
http://findarticles.com/p/articles/mi_qa3717/is_199904/ai_n8844207 (Document accessed on 2009-06-25).
- Duru-Bellat, Marie and Agnès Henriot-Van Zanten (2002). *Sociologie de l'école*, Paris, Armand Collin.
- Elder, G. H., Jr., King, V. and Conger, R.D. (1996). "Attachment to place and migration prospects: A developmental perspective". *Journal of Research on Adolescence*, 6(4), 397-425.
- Felouzis, G, Sembel, N, Mehaut, Philippe (1997). «La construction des projets à l'université: Le cas de quatre filières de l'université de masse», *Formation emploi*, no 58, pp. 45-59.
- Frenette, Marc (2003). *Access to College and University: Does Distance Matter?* Analytical Studies Branch Research Paper Series, research document, no 201, Ottawa: Statistics Canada.
- Gallagher R.V., Rostosky S.S., Hughes H.K. (2004). "School Belonging, Self-Esteem, and Depressive Symptoms in Adolescents: An Examination of Sex, Sexual Attraction Status, and Urbanicity", *Journal of Youth and Adolescence*, Volume 33, Number 3, June 2004, pp. 235-245.
- Garg, R., Kauppi, C., Lewko, J., and Urajnik, D. (2002). "A structural model of educational aspirations". *Journal of Career Development*, 29(2), 87-108.
- Garg, Rashmi, Melanson, Stella, Levin, Elizabeth (2007). *Educational aspirations of male and female adolescents from single-parent and two biological parent families: A comparison of influential factors*. [PDF] <http://www.springerlink.com/content/v6h0543628n37212/fulltext.pdf> (Document accessed on 2009-05-28).
- Gaudreault, M., Perron, M., Gagne, M. and S. Veillette. (2004). *Les aspirations scolaires, les aspirations professionnelles et le désir d'enracinement: visions d'avenir des élèves de Charlevoix*, série «La vie des jeunes de Charlevoix. Qui sont-ils? Que font-ils?» Jonquière, Groupe ECOBES, Cegep de Jonquière.

- Gaudreault, Marco, Veillette, Suzanne, Blackburn, Marie-Ève, Laberge, Luc, Gagne, Mathieu, Perron, Michel (2004). *Perceptions de soi et de l'avenir à l'adolescence*, série Enquête régionale 2002: Les jeunes du Saguenay-Lac-Saint-Jean. Qui sont-ils? Que font-ils? Jonquière, Groupe ECOBES, CEGEP de Jonquière.
- Gottfredson, L. (1996). "A theory of circumscription and compromise". In D. Brown and L. Brooks (Eds.). *Career choice and development: Applying contemporary theories to practice* (3rd ed., pp. 179–232). San Francisco: Jossey-Bass.
- Goyette, K. (2008). "College for some to college for all: Social background, occupational expectations, and educational expectations over time". *Social Science Research*. 37(2), 461-484.
- Haller, E. J. and Virkler, S. J. (1993). "Another look at rural nonrural differences in students' educational aspirations". *Journal of Research in Rural Education*. 9(3), 170-178.
- Hardre, P.L., Crowson, H. M., Debacker, T. K., and White, D. (2007). "Predicting the academic motivation of rural high school students". *Journal of Experimental Education*, 75(4), 247-269.
- Hardre, P. L., and Reeve, J. (2003). "A motivational model of rural students' intentions to persist in, versus drop out of, high school". *Journal of Educational Psychology*, 95(2), 347-356.
- Hansen, T.D., and McIntire, W.G. (1989). "Family structure variables as predictors of educational and vocational aspirations of high school seniors". *Research in Rural Education*, 6(2), 39-49.
- Hawkins, J.D., Doueck, H.J., and Lishner, D.M. (1988). "Changing teaching practices in mainstream classrooms to improve bonding and behavior of low achievers". *American Educational Research Journal*, 25, 31-50.
- Hektner, J. M. (1995). "When moving up implies moving out: Rural adolescent conflict in the transition to adulthood". *Journal of Research in Rural Education*, 11(1), 3-14.
- Helwig, A. (2001). "A Test of Gottfredson's Theory Using a Ten-Year Longitudinal Study". *Journal of Career Development*, 28 (2).
- Helwig, A. (2003, March). "The measurement of Holland types in a 10-year longitudinal study of a sample of students". *Journal of Employment Counseling*, 40(1), 24-32.
- Helwig, A. (2008, September). "From Childhood to Adulthood: A 15-Year Longitudinal Career Development Study". *Career Development Quarterly*, 57(1), 38-50.
- Henchey, Norman. 1998. *Trajectoires et transitions des apprenantes et apprenants : document de réflexion*. Council of Ministers of Education, Canada.
- Herting Wahl, Kay and Anne Blackhurst (2000). "Factors Affecting the Occupational and Educational Aspirations of Children and Adolescents". ASCA, *Professional School Counseling*, vol. 3, no 5, pp. 367-374.
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments*. Odessa, FL: Psychological Assessment Resources.
- Hossler, D., and Stage, F. K. (1992). "Family and high school experience influences on the postsecondary educational plans of ninth-grade students". *American Educational Research Journal*, 29, 425-451.
- Howley, C. W. (2006). "Remote possibilities: Rural children's educational aspirations". *Peabody Journal of Education*, 81(2), 62-80.

- Human Resources and Skills Development Canada [HRSDC] (2004). *Aspirations of Canadian youth for higher education*, final report, [online pdf] <http://www.hrsdc.gc.ca/eng/cs/sp/hrsdclp/publications/2004-002631/sp-600-05-04.pdf>.
- Johnson, S. E. (2000). *College choice: Psychological factors influencing postsecondary aspirations and expectations of ninth-grade students*. (Doctoral dissertation, ProQuest Information & Learning). Dissertation Abstracts International Section A: Humanities and Social Sciences, 61 (3-A).
- Johnson, M. K., Elder, G. H., Jr., and Stern, M. (2005). "Attachments to family and community and the young adult transition of rural youth". *Journal of Research on Adolescence*, 15(1), 99-125.
- Kirby, D., and Conlon, M. (2005). "Comparing the economic experiences of rural and urban university students". *Alberta Journal of Educational Research*, 51(1), 4-17.
- Kirikpatrick Johnson, M., Glen H. Elder and M. Stern (2005). "Attachments to Family and Community and the Young Adult Transition of Rural Youth". *Journal of Research on Adolescence*, vol. 15, no 1 (March), pp. 99-125.
- Laflamme, Claude (1996). «Inflation des diplômés et insertion professionnelle des jeunes : situation des diplômés du secondaire professionnel et du cegep technique sur le marché de l'emploi». *Revue des sciences de l'éducation*, vol. 22, n° 1, 1996, p. 47-72, (PDF) <http://id.erudit.org/iderudit/031846ar>.
- Lambert, Mylène, Zeman, Klarka, Allen, Mary and Bussière, Patrick (2004). *Who Pursues Postsecondary Education, Who Leaves and Why? Results from the Youth in Transition*, Culture, Tourism and the Centre for Education Statistics: Research Papers, catalogue no 81-595-MIF — no 026.
- Lent, Robert W., Brown, Steven D. and Hackett, Gail (2000). "Contextual Supports and Barriers to Career Choice: A Social Cognitive Analysis", *Journal of Counseling Psychology*, vol. 47, no 1, pp. 36-49 (Jan. 2000).
- Lent, R. W., Brown, S. D., and Hackett, G. (1994). "Toward a unifying social cognitive theory of career and academic interest, choice, and performance". *Journal of Vocational Behavior*, 45, 79-122.
- Litalien, David (2008). *Pourquoi les étudiants de régions rurales montrent des aspirations scolaires plus FAIBLES que ceux provenant de régions urbaines? Une explication basée sur une perspective motivationnelle et relationnelle*, Maîtrise en sciences de l'orientation, Université Laval.
<http://archimede.bibl.ulaval.ca/archimede/files/44b5ac85-3e41-477f-ad4c-2cbce675f615/25258.html>
(Document accessed on 2009-06-25).
- Looker, E. Dianne, Peter DWYER (1998). "Education and negotiated reality: Complexities facing rural youth in the 1990s". *Journal of Youth Studies* 1:5-22.
- Lowe, G. S., Krahn, H., and Bowlby, J. (1997). *1996 Alberta High School Graduate Survey Report of Research Findings*. Population Research Laboratory, Department of sociology, University of Alberta, Edmonton.
- Ma, X., and Wang, J. (2001). "A confirmatory examination of Walberg's model of educational productivity in student career aspiration". *Educational Psychology*, 21(4), 443-453.
- Marjoribanks, Kevin (2005). "Family background, adolescents' educational aspirations, and Australian young adults' educational attainment". *International Education Journal*, 2005, 6(1), 104-112.[PDF] <http://ehlt.flinders.edu.au/education/iej/articles/v6n1/Marjoribanks/paper.pdf> (Document accessed on 2009-02-16).
- McCracken, J. D., and Barcinas, J. D. T. (1991). «Differences between rural and urban schools, student characteristics, and student aspirations in Ohio". *Journal of Research in Rural Education*, 7(2), 29-40.

- McWhirter, E. H. (1997). "Perceived barriers to education and career: Ethnic and gender differences". *Journal of vocational behavior*, 50(1), 124-140.
- McWhirter, E. H., Crothers, M., and Rasheed, S. (2000). "The effects of high school career education on social-cognitive variables". *Journal of Counseling Psychology*, 47(3), 330-341.
- Meece, J. L., Wigfield, A., and Eccles, J. S. (1990). "Predictors of mathematics anxiety and its influence on young adolescents' course enrolment intentions and performance in mathematics". *Journal of Educational Psychology*, 82, 60-70.
- Ministère de l'Éducation du Québec (2003b). «Cheminement scolaire : du collégial à l'université», *Bulletin statistique de l'éducation*, ministère de l'Éducation, no 28, juin 2003.
- Mortimer, J., Zimmer-Gembeck, M., Holmes, M., Shanahan, M. (2002). "The Process of Occupational Decision Making: Patterns during the Transition to Adulthood". *Journal of Vocational Behavior*, 61, 439-465.
- Najaka, S. B. (2001). A meta-analytic inquiry into the relationship between risk factors and problem behavior. *Dissertation Abstracts International, A: The Humanities and Social Sciences*, 62(1), 340-A.
- Ojeda, Lizette and Lisa Y. Flores. (2008). "The Influence of Gender, Generation Level, Parents' Education Level, and Perceived Barriers on the Educational Aspirations of Mexican American High School Students". *The Career Development Quarterly*, vol. 57, pp. 84-95.
- Perron, M., Gaudreault, M., Veillette, S. and L. Richard (2000). *Jeunes de la ville ou de la campagne: quelles différences?* Série Enquête régionale 1997: Aujourd'hui, les jeunes du Saguenay-Lac-Saint-Jean, Groupe ECOBES, Cegep de Jonquière.
- Perron, Michel, Gaudreault, Marco, Veillette, Suzanne, Richard, Laurent (1999). *Les trajectoires d'adolescence: Stratégies scolaires, conduites sociales et vécu psychoaffectif*, Série Enquête régionale: Aujourd'hui, les jeunes du Saguenay-Lac-Saint-Jean, Groupe ECOBES, Cegep de Jonquière.
- Réseau des cegeps et des collèges francophones du Canada, (2003). *Poursuite des études postsecondaires en milieu minoritaire francophone: Intentions des diplômés du secondaire en 2003*, final report, http://rccfc.ca/pdf/etudes/poursuite_intentions.pdf, (Document accessed on 2008-10-01).
- Rindfuss, R., Cooksey, E., Sutterlin, R. (1999). "Young Adult Occupational Achievement: Early Expectations Versus Behavioral Reality". *Work and Occupations*, 26(2), 220-263.
- Rocher, Guy (1981). «Pour une théorie psychosociologique des aspirations», in R. Bédard *et al.*, *Le projet ASOPE : son orientation, sa méthodologie, sa portée sociale et ses réalisations*, Les Cahiers d'ASOPE, vol. VII, Québec : Faculté des sciences de l'éducation, Université Laval; Montréal : Département de sociologie, Université de Montréal, pp. 40-83.
- Rojewski, J., Yang, B. (December 1997). "Longitudinal Analysis of Select Influences on Adolescents' Occupational Aspirations". *Journal of Vocational Behavior*, 51 (3), 375-410.
- Rumberger, R.W. (1995). "Dropping out of middle school: A multilevel analysis of students and schools". *American Educational Research Journal*, 32, 583-625.
- Ryan, R. M., and Connell, J. P. (1989). "Perceived locus of causality and internalization: Examining reasons for acting in two domains". *Journal of Personality and Social Psychology*, 57, 749-761.

- Shapkaa, J., Domeneb, J., Keating, D., (2006). "Trajectories of Career Aspirations through Adolescence and Young Adulthood: Early math achievement as a critical filter". *Educational Research and Evaluation*, 12 (4), 347-358.
- Sherman, J., and Fennema, E. (1977). "The study of mathematics by high school girls and boys: Related variables". *American Educational Research Journal*, 14, 159-168.
- Statistics Canada. (1999). «Determinants of postsecondary participation», *Education Quarterly*, Catalogue no 81-003, vol. 5, no 3.
- Stinebrickner, Todd R. and Stinebrickner, Ralph, (2000). *Working During School and Academic Performance*, UWO Department of Economics Working Papers 20009, University of Western Ontario, Department of Economic, [PDF] http://www.ssc.uwo.ca/economics/econref/workingpapers/researchreports/wp2000/wp2000_9.pdf (Document accessed on 2009-06-25).
- Stevens, Constance J. Laura, A. Putchell (1992). "Adolescent work and boys and girls orientations to the future". *Sociological Quarterly*, 33:153-170.
- Teachman, K. Paasch (1998). "The Family and Educational Aspirations." *Journal of Marriage and the Family*, 60:704-714.
- Trusty, J., Colvin Harris, M., (1999). "Lost Talent: Predictors of the Stability of Educational Expectations Across Adolescence". *Journal of Adolescent Research*, 14(3) 359-382.
- Vallerand, R. J., Fortier, M. S., and Guay, F. (1997). "Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout". *Journal of Personality and Social Psychology*, 72(5), 1161-1176.
- Viau, R. (2004). «La motivation : condition au plaisir d'apprendre et d'enseigner en contexte scolaire», in *Actes du 3^e congrès des chercheurs en éducation*, Bruxelles, mars 2004.
- Wall, J., Covell, K. and McIntyre, P. (1999). "Implications of social supports for adolescents' education and career aspirations". *Canadian Journal of Behavioural Science*, 31 (2), 63-71.
- Weber, Silke (1976). «Modèle dominant en éducation», in *Transformations de l'environnement, des aspirations et des valeurs*, in Paul-Henry Chombart Delauwe (dir.), Paris, Éditions du Centre national de la recherche scientifique, pp. 153-173.
- Wilson, P. M., and Wilson, J. R. (1992). "Environmental influences on adolescent educational aspirations: A logistic transform model". *Youth & Society*, 24(1), 52-70.
- Working Group on Accessibilty to Post-Secondary Education in New Brunswick (2000). *Report of the Working Group on Accessibilty to Post-Secondary Education in New Brunswick*. Dept. of Education, Government of New Brunswick.

Appendix I: Description of the Psychosocial Variables' Wording

YSA8K Variable: Think about all of your classes THIS school year. How often are these statements true for you

- I am certain I can understand the most difficult material presented in the texts.

YSA8L Variable: Think about all of your classes THIS school year. How often are these statements true for you

- I am confident I can understand the most complex presented by the teacher.

YSA8M Variable: Think about all of your classes THIS school year. How often are these statements true for you

- I am confident I can do an excellent job on assignments and tests.

YSA8N Variable: Think about all of your classes THIS school year. How often are these statements true for you

- I am confident I can master the skills being taught.

Choices of answers:

1 = Never

2 = Rarely

3 = Sometimes

4 = Often

5 = Always

99 = Not stated

YSI1A Variable: How do you feel about the following?
There are no right or wrong answers.

- I feel I am a person of worth, at least on an equal basis with others.

YSI1B Variable: How do you feel about the following?
There are no right or wrong answers.

- I feel that I have a number of good qualities.

YSI1C Variable: How do you feel about the following?
There are no right or wrong answers.

- All in all, I tend to feel that I am a failure.

YSI1D Variable: How do you feel about the following?
There are no right or wrong answers.

- I am able to do things as well as most other people.

YSI1E Variable: How do you feel about the following?
There are no right or wrong answers.

- I feel I do not have much to be proud of.

YSI1F Variable: How do you feel about the following?
There are no right or wrong answers.

- I have a positive attitude toward myself.

YSI1G Variable: How do you feel about the following?
There are no right or wrong answers.

- On the whole, I am satisfied with myself.

YSI1H Variable: How do you feel about the following?
There are no right or wrong answers.

- I wish I could like myself more.

YSI1I Variable: How do you feel about the following?
There are no right or wrong answers.

- I certainly feel useless at times.

YSI1J Variable: How do you feel about the following?

There are no right or wrong answers.

- At times I think I am not good at all.

Choice of answers:

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

9 = Not stated

YSA9K Variable: How do you feel about the following THIS YEAR?

- People at school are interested in what I have to say.

YSA9O Variable: How do you feel about the following THIS YEAR?

- I have friends at school whom I can talk to about personal things.

YSA9P Variable: How do you feel about the following THIS YEAR?

- I have friends at school who can help me with school work, if needed

Choice of answers:

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

9 = Not stated

YSHACPS1 Variable: derived variable, measures a respondent's academic participation at high school.
-4.84000: 02.88000 Scale – academic participation
9.99999 Not stated

YSHACIS1 Variable: derived variable, measures a respondent's academic identification at high school.
-5.04000: 05.12000 Scale - academic identification
9.99999 Not stated